

1981

BGSU 1981-1982-1983 Undergraduate Catalog

Bowling Green State University - Main Campus

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Bowling Green State University

1981-1983 Undergraduate Catalog

BOWLING GREEN STATE UNIVERSITY QUARTER/SEMESTER COURSE CONVERSION TABLES EFFECTIVE FALL SEMESTER, 1982

CONTENT OF THE TABLES

- Courses are listed in numerical sequence and are grouped by subject in the same order in which they appear in the class schedule.
- The left half of each table lists all existing quarter courses in numerical order; the right half lists in numerical order all new semester courses.
- The columns of the tables are as follows, from left to right:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.

ACTION TAKEN Contains a LETTER-A, B, C, D, or E-which designates the nature of the conversion of the quarter course concerned. (See the following section for explanations of the meaning of each letter.)

COURSE # Existing number of the quarter course.

DESCRIPTIVE TITLE Existing title of the quarter course.

QTR. HRS. Quarter hours of credit for the quarter course.

COURSE # Course number of the semester course (may not be the same as the equivalent quarter course).

DESCRIPTIVE TITLE Title of the semester course (may not be the same as its equivalent quarter course).

SEM. HRS. Converted semester credit hours of the semester course.

You may find a few entries in both the quarter and semester columns which are not in numerical order. In such cases, entries are enclosed in parentheses. These are usually displayed in this manner to show two quarter courses being combined into one semester course.

SYMBOLS AND EXPLANATIONS: HOW TO INTERPRET THE TABLES

The following explanation of symbols and arrangement of the tables will enable you to determine how the quarter courses were converted into semester courses.

Look first at the letter in the column, ACTION TAKEN. This indicates the nature of the conversion of a quarter course as follows:

(A)-Indicates that the conversion has produced a DIRECT EQUIVALENT to the quarter course. The descriptive title may be changed in some instances, but for any quarter course prefixed by the letter A in the ACTION TAKEN column, the course listed opposite in the semester column is its DIRECT EQUIVALENT. In this case, the semester course should be considered as an equivalent replacement for the quarter course in planning future schedules or in computing requirements completed. DIRECT EQUIVALENT COURSES are listed directly opposite the existing course. Occasionally, the semester course may be enclosed in parentheses. This indicates that the course has changed number or level in such a way that the semester course is out of sequence numerically; the semester course is still a DIRECT EQUIVALENT. Example:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	201	General Psych	5	201	General Psych	4

This listing shows that quarter course PSYC 201-General Psychology has a DIRECT EQUIVALENT in semester course PSYC 201-General Psychology and has gone from 5 quarter hours to 4 semester hours.

(B)-Indicates a REGROUPED COURSE SEQUENCE. The quarter course sequence involved and the regrouped semester sequence are shown bracketed together. This listing enables you to determine what has happened to two- or three-course quarter sequences under the semester conversion, as follows:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	
(B)	501	Hist. of Psych	3	501	Hist. of Psych	3	
(B)	502	Hist. of Psych	3		502	Hist. of Psych	3
(B)	503	Hist. of Psych	3				

In this example, an existing three-quarter sequence has been converted into a two-semester sequence. Such conversions involve redistribution of subject matter. Individual departments can supply information about such redistribution if you need more detail for planning your program. Another example of REGROUPED COURSE SEQUENCES is given by:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(B)	303	Develop Psych	3	303	Child Development	3
(B)	304	Develop Psych	3		Adolescent Psych	2
(B)	(404)	Adv Dev Psych	3			

(farther on in the tables is the following entry):

(B) 404 Adv Dev Psych 3 (absorbed into 303, 304)

This is another example of a three-quarter sequence converted into a two-semester sequence. In this example, the first entry for PSYC 404 has been enclosed in parentheses because it is out of numerical sequence. Later, when the course appears in sequence, it is listed without parentheses, and opposite the course appears an explanation of how it has been converted. Note that there have been title changes and adjustments in hours. The entry reveals that the semester equivalent of the sequence of quarter courses PSYC 303, 304, and 404 is now the semester sequence PSYC 303 and 304.

(C)-Designates a semester course which combines elements from one or several quarter courses. Sometimes this letter is used to indicate a two-quarter sequence which has become a single semester course. On other occasions, the content of a quarter course may be distributed over several semester courses. Examples:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(C)	110	College Algebra	5	414	Adv Math Elem Tchrs	5
(C)	414	Adv Math Elem Tchrs I	4			
(C)	415	Adv Math Elem Tchrs II	4			

In the first example, the quarter course Math 110 has ceased to exist as such, and has no equivalent; its content has been distributed over the five indicated semester courses. In the second example, a two-quarter sequence, Math 414 and 415, has been collapsed into a single semester course.

(D)-Indicates that a course has changed level. These changes are confined almost exclusively to changes within lower or upper divisions. Example:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(D)	(207)	Man & Society	4	107	Intro to Social Phil	3
(A)	204	Aesthetics	4	204	Aesthetics	3
(D)	207	Man & Society	4	(107)	Intro to Social Phil	3

In this example, the quarter course 207-Man & Society has changed to the 100 level, and is now semester course 107-Intro to Social Phil, a direct equivalent. The parentheses have been used in the appropriate columns because the listings were out of order.

(E)-Indicates that the quarter course is being dropped from the course inventory, with no equivalent replacement in the semester system nor any significant portion of its content absorbed in other courses. The word "deleted" will appear opposite such courses. Example:

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(E)	331	Human Motivation	4		(deleted)	

In this example, the quarter course PSYC 331 has been deleted from the course inventory, and no equivalent exists. If degree program requirements are affected by a course deletion, your college and departmental advisers will identify appropriate substitutions.

Each department, school, and program has prepared its own course conversion table for inclusion in this set of tables. While an effort has been made to standardize the format as much as possible, some differences in style may result from unique situations in some programs. Please consult the appropriate department, school, or program if you have questions.

SUMMARY OF THINGS TO REMEMBER

- Look first at the LETTER IN THE "ACTION TAKEN" COLUMN. It will reveal what has happened to any given quarter course:
 - A—a DIRECT EQUIVALENT is listed opposite;
 - B—a sequence of quarter courses has been REGROUPED into the new sequence connected by brackets;
 - C—the content of a quarter course has been ABSORBED or COMBINED into one or several semester courses (the explanatory note opposite will identify the course or courses);
 - D—LEVEL has CHANGED (parentheses are used to keep numerical sequences in order); and
 - E—the quarter course has been ELIMINATED from the curriculum, and no semester equivalent exists; the word "deleted" will appear opposite.
- Courses listed in the semester column opposite courses in the quarter column indicate equivalency.
- READ ALL EXPLANATORY NOTES OPPOSITE BOTH QUARTER AND SEMESTER ENTRIES. These provide you with additional information, particularly about quarter courses which have been divided.
- If you have questions about any specific course, SEE THE DEPARTMENT, SCHOOL, OR PROGRAM OFFICE CONCERNED.
- Similar comparative tables for conversions of major, minor, and degree programs can be obtained from the appropriate college, department, school, or program office.
- KEEP THIS TABLE. Not only will it be needed for summer and fall registration, but it may be useful for future registrations as well. The semester side of the table will be useful as a future reference for determining the quarter course equivalents to courses offered under the semester system.

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.

Accounting (ACOT)

(A)	221	Intro Accounting I	4	221	Intro Accounting I	4	3
(A)	222	Intro Accounting II	4	222	Intro Accounting II	4	3
(E)	320	Survey of Accounting	6	(deleted)			
(A)	321	Intermed Acct Finan	4	321	Inter Finan Acct I	4	3
(A)	322	Intermed Acct Finan	4	322	Inter Finan Acct II	4	3
(A)	325	Acct for Non-Bus Stu	4	325	Acct for Non-Bus Stu	4	3
(A)	327	Financial Accounting	4	327	Fin Acct for Non-Maj	4	3
(A)	332	Managerial Acct I	4	331	Cost Accounting	4	3
(A)	332	Managerial Acct II	4	332	Intermed Mgmt Acct	4	3
(A)	337	Managerial Acct	4	337	Mgmt Acct for Non-Maj	4	3
(E)	340	Income Taxes-Individ	2	(deleted)			
(D)	351	Auditing I	4	(451)	Auditing I	4	1-3
(A)	409	Acct Internship	1-4	(489)	Acct Internship	1-4	1-3
(A)	421	Contemp Finan Topics	4	421	Adv Financial Acct	4	3
(A)	422	Adv Financial Acct	4	422	Contemp Finan Topics	4	3
(A)	423	Govt & Institutional	4	423	Acct for Non-Profits	4	3
(A)	424	Fin Rept Multinatl	4	424	Fin Rept Multinatl	4	3
(E)	425	Acct Health Care Sv	3	(deleted)			
(A)	429	Pract Acct Practice	4	429	Prob in Acct Pract	4	3
(A)	439	Role Financial Exec	4	439	Role Financial Exec	4	3
(A)	441	Federal Income Tax	4	441	Intro to Fed Taxation	4	3
(A)	442	Adv Fed Income Tax	4	442	Adv Federal Taxation	4	3
(D)	(351)	Auditing I	4	451	Auditing I	4	3
(A)	452	Auditing II	4	452	Auditing II	4	3
(A)	(409)	Acct Internship	1-4	489	Acct. Internship	1-4	1-3
(A)	491	Studies in Acct	1-4	491	Studies in Acct	1-4	1-3
(E)	500	Survey of Accounting	6	(deleted)			
(A)	621	Evol of Acct Thought	4	621	Evol of Acct Thought	4	3
(A)	622	Contemp Acct Theory	4	622	Contemp Acct Theory	4	3
(A)	623	Income Theory	4	623	Income Theory	4	3
(A)	631	Seminar in Mgmt Acct	4	631	Seminar in Mgmt Acct	4	3
(A)	643	Seminar in Tax Acct	4	643	Seminar in Tax Acct	4	3
(A)	654	Seminar in Auditing	4	654	Seminar in Auditing	4	3
(A)	670	Readings Accounting	1-4	670	Readings Accounting	1-4	1-3
(A)	680	Seminar Accounting	1-4	680	Seminar Accounting	1-4	1-3
(A)	697	Research Sem in Acct	1-4	697	Research Sem in Acct	1-4	3
(A)	699	Thesis Research	1-9	699	Thesis Research	1-9	1-

Management Information Systems (MIS)

(A)	200	Intro Mgmt Info Sys	4	200	Intro Mgmt Info Sys	4	3
(A)	360	Computer Based Sys	4	360	Computer Based Sys	4	3
(A)	471	Information Systems	4	371	Systems Analysis	4	3
(A)	473	Contemp Topics MIS	4	472	Contemp Topics MIS	4	3
(A)	474	Cases in Mgt Inf Sys	4	474	Cases in MIS	4	3
(E)	475	Computer Health Care	4	(deleted)			
(A)	491	Studies Mgt Info Sys	1-4	491	Studies Mgt Info Sys	1-4	1-3

Aerospace Studies (AERO)

(B)	101	Aerospace Studies	1	111	Air Force Organization	1	1
(B)	102	Aerospace Studies	1	112	Air Force Organization	1	1
(B)	103	Aerospace Studies	1				
(B)	201	Aerospace Studies	1	211	Aerospace History	1	1
(B)	202	Aerospace Studies	1	212	Aerospace History	1	1
(B)	203	Aerospace Studies	1				
(B)	301	Air Force Management	3	311	Air Force Management	3	3
(B)	302	Air Force Management	3	312	Air Force Management	3	3
(B)	303	Air Force Management	3				
(B)	362	Aerospace Studies: Flight Instruction Program	2	362	Flight Instruction Program (Ground School)	2	3
(B)	363	Aerospace Studies: Flight Instruction Program	2				
(B)	411	Aerospace Studies	3	411	Air Force Officership	3	3
(B)	412	Aerospace Studies	3	412	Air Force Officership	3	3
(B)	413	Aerospace Studies	3				
(B)	461	Aerospace Studies: Flight Instruction Program	2	461	AFRMC Flight Instruction Program	2	2

American Culture (AMC)

(A)	595	Wksp Topics AMC Stds	1-6	595	Wksp Topics AMC Stds	1-6	1-3
(A)	635	Interdisc Seminar	1	635	Interdisciplinary Seminar	1	1-6
(A)	670	Spec Probs Amer Cult	1-3	670	Spec Problems Amer Cult	1-3	1-3
(A)	680	Topics AMC Studies	4	680	Topics Amer Cult Studies	4	3
(A)	689	Internship	1-9	689	Internship	1-9	1-6
(A)	730	Seminar: Theories AMC	4	730	Sem: Theories Amer Cult	4	3
(A)	750	Practicum Amer Culture	4	750	Practicum Amer Culture	4	2
(A)	770	Problems in Research	1-4	770	Problems in Research	1-4	1-3
(A)	780	Seminar: AMC Studies	4	780	Sem: Amer Culture Studies	4	3
(A)	799	Oisertation Research	1-16	799	Oisertation Research	1-16	1-16

American Studies (AMST)

(A)	200	Intro to Amer Studies	4	200	Intro to Amer Studies	4	3
(A)	230	Issues in Amer Civilization	4	230	Issues in Amer Civilization	4	3
(A)	240	Hist Prspts on Amer Cult	4	240	Hist Prspts on Amer Cult	4	3
(A)	300	Interprts of Amer Cult	4	300	Interprts of Amer Cult	4	3
(A)	400	Sr Sem in Amer Studies	4	400	Sr Sem in Amer Studies	4	3
(A)	490	Tutorial in Amer Studies	1-5	490	Tutorial in Amer Studies	1-5	1-3
(A)	570	Readings in Amer Studies	3-5	570	Readings in Amer Studies	3-5	1-3
(A)	580	Topics in Amer Studies	4	580	Topics in Amer Studies	4	3
(A)	581	Seminar in Amer Studies	5	581	Seminar in Amer Studies	5	3
(A)	589	Internship	1-9	589	Internship	1-9	1-6
(A)	597	Methods & Theories	4	597	Methods & Theories	4	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.

Art (ART)

(E)	100	Early Adm. Art Prog.	3	(deleted)			
(A)	101	Intro to Art	3	101	Intro to Art	3	3
(B)	102	2-D Found. I	3	102	2-D Foundations	3	3
(B)	103	2-D Found. II	3	103	Drawing Foundations	3	3
(B)	104	2-D Found. Comp.	3				
(B)	112	3-D Found. I	3	112	3-D Foundations	3	3
(B)	113	3-D Found. II	3				
(B)	145	Hist. of West. Art I	3	145	West. Art I	3	3
(B)	146	Hist. of West. Art II	3	146	West. Art II	3	3
(B)	147	Hist. of West. Art III	3				
(B)	205	Beg. Draw. from Life	3	205	Beg. Draw. from Life	3	3
(B)	206	Adv. Draw. from Life	3	206	Figure Drawing	3	3
(B)	208	Spec. Draw. Tech.	3				
(B)	211	Intro. to Graphic Design	3	211	Intro. to Graphic Design	3	3
(B)	(214)	Lettering & Typography	3	(311)	Adv. Graphic Design	3	3
(B)	(311)	Advanced Design	3				
(B)	212	Intro. to Prod. Design	3	212	Intro. to Product Design	3	3
(B)	213	Intro. to Environ. Design	3	213	Intro. to Environ. Design	3	3
(B)	(314)	Modeling	3				
(A)	214	Lettering & Typography	3				
(A)	230	Intro. to Art Therapy	3	230	Intro. to Art Therapy	3	2
(A)	252	Found. for Tch. Vis. Arts	4	252	Found. for Tch. Vis. Arts	4	3
(B)	261	Beginning Sculpture	3	261	Sculpture I	3	3
(B)	(361A)	Sculpture	3				
(B)	263	Beginning Ceramics	3	263	Ceramics I	3	3
(B)	(362)	Ceramics	3	363	Ceramics II	3	3
(B)	(364)	Advanced Ceramics	3				
(B)	265	Beginning Weaving	3	265	Non-loom Fiber Tech.	3	3
(B)	(365)	Weaving	3	265	Intro. to Weaving	3	3
(B)	(465A)	Adv. Weaving	3				
(B)	267	Stained Glass Comp.	3	267	Stained Glass Comp.	3	3
(B)	(315)	Glassworking	3	315	Glassworking	3	3
(B)	(415A)	Adv. Glassworking	3	277	Printmaking I	3	3
(B)	277	Beginning Prints	3				
(B)	(377A)	Prints	3				
(B)	305A	Adv. Draw. from Life	3	305	Adv. Draw. from Life	3	3
(B)	305B	Adv. Drawing from Life	3				
(B)	(211)	Intro. to Graphic Design	3				
(B)	(214)	Lettering & Typography	3				
(B)	311	Advanced Design	3	311	Adv. Graphic Design	3	3
(B)	312	Print Advertising	3	312	Advertising Design	3	3
(B)	(411)	Television Adv. Design	3	412	Pack. & Prom. Design	3	3
(B)	(412)	Pack. & Prom. Design	3				
(B)	313	Rendering	3	313	Rendering	3	3
(B)	(414)	Corporate Identity Design	3	414	Corporate Identity Design	3	3
(B)	(414)	Spec. Topics in Design	3				
(B)	314	Modeling	3				
(B)	(267)	Stained Glass Comp.	3	267	Stained Glass Comp.	3	3
(B)	315	Glassworking	3	315	Glassworking	3	3
(B)	(415A)	Adv. Glassworking	3				
(B)	320A	Enameling on Copper	3	320	Enameling on Metal	3	3
(B)	320B	Enameling on Copper	3	320B	Enameling on Metal	3	3
(B)	320C	Enameling on Copper	3	320C	Enameling on Metal	3	3
(B)	(423A)	Jewelry Enameling	3				
(B)	321	Beg. Jewelry Design	3	321	Beg. Jewelry Design	3	3
(B)	(421A)	Adv. Jewelry	3				
(B)	322	Jewelry Design	3	322	Jewelry Design	3	3
(B)	(421B)	Adv. Jewelry Design	3				
(B)	325	Creative Photography	3	325	Creative Photography	3	3
(B)	(425A)	Adv. Prob. Creative Pho.	3				
(B)	330	Methods & Theory I	4	330	Methods & Theory I	4	3
(A)	331	Methods & Theory II	4	331	Methods & Theory II	4	3
(A)	343	Art for Elem. Teachers	3	343	Art for Elem. Teachers	3	2
(A)	352	Appr. to Pub. Sch. Art	4	352	Appr. to Pub. Sch. Art	4	2
(A)	353	Appr. to Art Curr. & Sup.	4	353	Appr. to Art Curr. & Sup.	4	3
(B)	(261)	Beginning Sculpture	3	261	Sculpture I	3	3
(B)	361A	Sculpture	3	361A	Sculpture II	3	3
(B)	361B	Sculpture	3	361B	Sculpture II	3	3
(B)	(461A)	Adv. Sculpture	3				
(B)	(263)	Beginning Ceramics	3	263	Ceramics I	3	3
(B)	363	Ceramics	3	363	Ceramics II	3	3
(B)	364	Advanced Ceramics	3				
(B)	(265)	Beginning Weaving	3	265	Non-loom Fiber Techniques	3	3
(B)	365	Weaving	3	365	Intro. to Weaving	3	3
(B)	(465A)	Adv. Weaving	3				
(B)	371	Beg. Watercolor Ptg.	3	371	Watercolor Painting I	3	3
(B)	(471A)	Adv. Watercolor Ptg.	3				
(A)	372A	Adv. Watercolor Ptg.	3	372A	Watercolor Painting II	3	3
(A)	372B	Adv. Watercolor Ptg.	3	372B	Watercolor Painting II	3	3
(A)	372C	Adv. Watercolor Ptg.	3				
(B)	37						

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	595	Whshp. on Curr. Topics in Biol.	1-6	595	Whshp. on Curr. Topics in Biol.	1-4
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9
(A)	601	Oper. & Management. of Blood Banks	5	601	Oper. & Management. of Blood Banks	3
(A)	602	Field Service	4	602	Field Service	3
(A)	603	Supervised Blood Banking Practice	6	603	Supervised Blood Banking Practice	4
(A)	701	Topics in Physiology	1-6	701	Topics in Physiology	1-4
(A)	702	Topics in Microbiology	1-6	702	Topics in Microbiology	1-4
(A)	703	Topics in Parasitology	1-6	703	Topics in Parasitology	1-4
(A)	704	Topics in Ecology	1-6	704	Topics in Ecology	1-4
(A)	705	Topics in Evolution	1-6	705	Topics in Evolution	1-4
(A)	706	Topics in Molec. Biol.	1-6	706	Topics in Molec. Biol.	1-4
(A)	707	Topics in Entomology	1-6	707	Topics in Entomology	1-4
(A)	708	Topics in Morphogenesis	1-6	708	Topics in Morphogenesis	1-4
(A)	709	Topics in Genetics	1-6	709	Topics in Genetics	1-4
(A)	710	Topics in Marine Biol.	1-6	710	Topics in Marine Biol.	1-4
(A)	711	Topics in Systematics	1-6	711	Topics in Systematics	1-4
(A)	712	Topics in Morphology	1-6	712	Topics in Morphology	1-4
(A)	721	Seminar	2	721	Seminar	3
(A)	799	Dissemination Research	1-16	799	Dissemination Research	1-16

Business Administration (BA)

(E)	100	Seminar in Bus. Adm.	2-8	(Deleted)		
(A)	102	Intro. to Business	4	102	Intro. to Business	3
(E)	300	Seminar in Bus. Adm.	2-8	(Deleted)		
(D)	303	Bus. Communications	4	303	Bus. Communications	3
(A)	305	Intgrt. Career & Family	4	305	Intgrt. Career & Family	3
(A)	325	Orgn. Health Care Serv.	4	325	Orgn. Health Care Serv.	3
(A)	390	Multinational Business	4	390	Multinational Business	3
(A)	403	Govt. and Business	4	403	Govt. and Business	3
(A)	405	Bus. Policy-Strategy	4	405	Bus. Policy-Strategy	3
(A)	406	New Enterprise Form	4	406	New Enterprise Form	3
(A)	409	Business Internship	1-4	409	Business Internship	1-3
(A)	428	Health Care Internship	8	428	Health Care Internship	6
(A)	440	Mgmt. of Intl. Oper.	3	440	Mgmt. of Intl. Oper.	2
(E)	450	Curr. Issues Internat'l	3	(Deleted)		
(A)	409	Business Internship	1-4	489	Business Internship	1-3
(A)	491	Studies in Bus. Adm.	1-4	491	Studies in Bus. Adm.	1-3
(A)	492	Studies Internat'l Bus.	1-4	492	Studies Internat'l Bus.	1-3
(A)	495	Reading for Honors	1-4	495	Reading for Honors	1-3

Business Education (BUSE)

(A)	101	Business Mathematics	4	101	Business Mathematics	3
(B)	111	Beginning Typewriting	3	111	Beginning Typewriting	3
(B)	112	Intermediate Typewriting	3	112	Advanced Typewriting	3
(B)	210	Advanced Typewriting	3	210	Advanced Typewriting	3
(A)	211	Office Reprographics	3	211	Office Reprographics	2
(B)	213	Beginning Shorthand	3	213	Beginning Shorthand	3
(B)	214	Intermediate Shorthand	3	214	Advanced Shorthand	3
(B)	215	Advanced Shorthand	3	215	Advanced Shorthand	3
(A)	220	Data Processing I	2	220	Data Processing (absorbed into 335)	2
(C)	230	Records Management	3	230	Records Management	3
(E)	240	Bus. Pch. Consumer	4	240	Bus. Pch. Consumer	3
(A)	301	Word/Info Processing	4	301	Word/Info Processing	3
(C)	311	Diction Transcript	3	311	Diction Transcript	3
(C)	313	Spec. Diction Trans	3	313	Internship in Bus Ed	1-2
(A)	314	Internship in Bus Ed	1-3	314	Computer Data Proc	3
(A)	321	Data Processing II	3	321	Computer Data Proc (deleted)	3
(E)	322	Data Processing III	3	322	Office & Rec Mgmt Sys	3
(C)	335	Office System & Proc	3	335	Office & Rec Mgmt Sys	3
(C)	230	Records Management	3	335	Office & Rec Mgmt Sys	3
(A)	332	Basic Bus in Sec Sch	3	332	Basic Bus in Sec Sch	2
(A)	354	Adv Bus in Sec Sch	3	354	Adv Bus in Sec Sch	2
(A)	356	Shorthand Sec Pr Sch	2	356	Shorthand Sec Pr Sch	1
(A)	358	Typewrit Cler Pr Sch	2	358	Typewrit Cler Pr Sch	1
(A)	364	Distributive Ed Sch	4	364	Distributive Ed Sch	3
(A)	370	OMA Orgn Prog Coord	4	370	OMA Orgn Prog Coord	3
(A)	467	Whshp in Bus & DE	2-4	393	Whshp in Bus & DE	2-3
(A)	401	Secretarial Adminis	4	401	Secretarial Adminis	3
(A)	441	Consumer Econ in Sch	4	441	Consumer Econ in Sch	3
(A)	455	Administrative Mgmt	3	455	Administrative Mgmt	3
(A)	461	Instr. Macls Dis Ed	4	461	Instr. Macls Dis Ed	2
(A)	462	Coord Coop Vocat Ed	4	462	Coord Coop Vocat Ed	2
(A)	463	Gen Plan Adult Vo Ed	4	463	Gen Plan Adult Vo Ed	3
(A)	465	Devel & Admtn Voc Ed	4	465	Devl & Admtn Voc Ed	2
(C)	466	Intensive Vocat BOE	4	466	Vocational Voc Ed	4
(C)	462	Coord Coop Vocat Ed (BOE)	4	468	Vocational Voc Ed	4
(A)	467	Whshp in Bus & DE	2-4	393	Whshp in Bus & DE	1-3
(A)	470	OMA Currnt Inscr Pco	4	469	OMA Currnt Inscr Pco	3
(A)	491	Studies in Bus & DE (replaces EDDO 381)	1-4	470	Studies in Bus & DE	1-2
(A)	501	Foundation Bus Educ	4	470	Student Teaching	1-10
(A)	502	Curric Devel Bus Educ	4	501	Foundation Bus Educ	3
(A)	504	Soc. Business Review	4	502	Curric Devel Bus Educ	3
(A)	528	Data Processing & Impl	4	504	Soc. Business Review	3
(A)	533	Proc Teach Bus Subj	4	528	Data Processing & Impl	3
(A)	561	Seminar in Distr Ed	4	533	Proc Teach Bus Subj	3
(A)	562	Supervis Vocat Educ	4	561	Seminar in Distr Ed	3
(A)	570	Readings in Bus Educ	1-5	562	Supervis Vocat Educ	3
(E)	580	Seminar in Bus Educ	4	570	Readings in Bus Educ (deleted)	1-4
(A)	589	Internship-Practicum	1-6	589	Internship-Practicum	1-4
(A)	593	Office Adm Theory Pr	4	593	Office Adm Theory Pr	3
(A)	595	Whshp Current Topics	1-6	595	Whshp Current Topics	1-4
(A)	597	Research in Bus Educ	5	597	Research in Bus Educ	3
(A)	598	Directed Research	1-6	598	Directed Research	1-4
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9
(A)	630	Adv Seminar Bus Educ	1-5	630	Seminar Bus Educ	1-4

Career and Technology Education (C&TE)

(A)	501	Principles of C&TE	4	501	Principles of C&TE	3
(A)	550	Instruct CTE Subj	5	550	Instruction of C&TE Subj	3
(A)	552	Theory Home Econ	4	552	Theory of Home Econ Educ	3
(A)	553	Theory Industrial Ed	4	553	Theory of Industrial Educ	3
(A)	554	Curriculum in C&TE	4	554	Curriculum in C&TE	3
(A)	555	Curric Devel Home Ec	4	555	Cur. Dev-Home Econ Educ	3
(A)	556	Curriculum in Ind Ed	4	556	Curriculum in Ind Ed	3
(A)	557	Facilities Plan C&TE	4	557	Facil Planning in C&TE	3
(A)	558	Technology America	4	558	Technology in America	3
(A)	559	Trng in Indus & Bus	4	559	Trng in Indus & Business	3
(A)	570	Readings-Prob C&TE	1-5	570	Readings-Prob in C&TE	1-3
(E)	580	Mod Ind St. Trng Eur	4	(deleted)		

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	589	Internship	4	589	Internship	4
(A)	595	Workshop in C&TE	1-6	595	Workshop in C&TE	1-4
(A)	597	Research in C&TE	5	597	Research in C&TE	3
(A)	598	Directed Research	1-5	598	Directed Research	1-3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9
(A)	611	Curric Devel-C&TE	5	611	Curric Devel in C&TE	3
(A)	658	Evaluation in C&TE	4	658	Evaluation in C&TE	3
(A)	666	Vocational Behavior	4	666	Theories of Voc Behavior	3
(A)	675	Admin-Superv C&TE	4	675	Admin-Superv in C&TE	3
(A)	680	Seminar Career Tech	5	680	Seminar in C&TE	3

Center for Educational Options (CEO)

(A)	101H	Evaluating soc. Contr	1	101H	Evaluating Social Contr.	3
(B)	102H	Values Analysis	1	102H	Values Analysis	1
(A)	121	Summer Transitions	2	121	Summer Transitions	1
(A)	124	State Government	1	124	State Government	1
(A)	131	Career Planning	2	131	Career Planning	2
(A)	140H	Social Science Seminar	5	140H	Social Science Seminar	4
(A)	150H	Science Seminar	5	150H	Science Seminar	4
(A)	160H	Humanities Seminar	5	160H	Humanities Seminar	4
(A)	201	Independent Studies	1-16	201	Independent Studies	1-15
(E)	250	Transitions-Career	4	(deleted)		
(E)	395	Student Internship	1-16	(deleted)		
(A)	401	Independent Studies	1-16	401	Independent Studies	1-15

Chemistry (CHEM)

(A)	100	Introduction to Chem.	4	100	Introduction to Chem.	3
(A)	104	Chem. for Elem. Teachers	3	104	Chem. for Elem. Teachers	3
(B)	111	Elementary Chemistry	4	111	Elementary Chemistry	4
(B)	112	Elem. Organic Chemistry	4	112	Elem. Organic and Biochemistry	4
(D)	121	Elementary Biochem.	4	121	Elementary Biochem.	5
(B)	122	General Chemistry	5	122	General Chemistry	5
(B)	123	General Chemistry	5	123	General Chemistry	5
(B)	131	General Chemistry	5	131	General Chemistry	5
(B)	132	General Chemistry	5	132	General Chemistry	5
(A)	200	Bio-Organic Chem & You	3	200	Bio-Organic Chemistry and You	2
(A)	201	Quantitative Chem. Anal.	5	201	Quantitative Chemical Analysis (absorbed into 116)	3
(D)	213	Elementary Biochem.	4	213	Elementary Biochem.	4
(A)	306	Organic Chemistry	5	306	Organic Chemistry	4
(A)	308	Basic Biochemistry	4	308	Basic Biochemistry	3
(A)	309	Elem. Biochem. Lab	2	309	Elem. Biochem. Lab	1
(E)	310	Chemical Information	1-3	(deleted)		
(A)	313	Special Topics in Chem.	1-3	313	Special Topics in Chem.	1-3
(A)	321	Survey of Instrum. Anal.	4	321	Survey of Instrum. Anal.	3
(B)	343	Organic Chemistry	4	343	Organic Chemistry	5
(B)	344	Organic Chemistry	5	344	Organic Chemistry	5
(A)	352	Physical Chemistry	5	352	Physical Chemistry	3
(A)	395	Workshop Current Topics	1-5	395	Workshop on Current Topics	1-3
(A)	402	Numerical Appl Phys	1-3	402	Numerical Meth Chem	1
(A)	413	Special Problems	1-3	413	Special Problems	1-3
(B)	431	Physical Chemistry	3	431	Physical Chemistry	4
(B)	433	Physical Chemistry	4	433	Physical Chemistry	4
(B)	435	Physical Chemistry	4	435	Physical Chemistry	4
(B)	437	Integ Analyt Phys. Lab	2	437	Integ Analyt-Phys Lab	2
(B)	439	Integ Analyt-Phys Lab	2	439	Integ Analyt-Phys Lab	2
(A)	413	Special Problems	1-3	413	Special Problems	1-3
(A)	441	Advanced Organic Lab	3	441	Spectroscopic Meth in Organic Ch	2
(A)	442	Org Reaction Mechan	4	442	Org Reaction Mechan	3
(B)	443	Spectrosc-Chromatogrph	3	443	Instrum Meth Analysis	3
(B)	444	Electroanalytical Ch	3	444	Electroanalytical Ch	3
(A)	445	General Biochemistry	4	445	General Biochemistry	3
(A)	446	Basic Biochem Lab	4	446	Basic Biochem Lab	1
(A)	447	General Biochemistry	4	447	General Biochemistry	3
(A)	449	Adv Biochem Lab	3	449	Adv Biochem Lab	2
(A)	453	Environmental Chem	3	453	Environmental Chem	2
(B)	443	Spectrosc-Chromatogrph	3	454	Instrum Meth Analysis	3
(B)	444	Electroanalytical Ch	3	454	Instrum Meth Analysis	3
(B)	445	General Biochemistry	4	454	Instrum Meth Analysis	3
(B)	446	Basic Biochem Lab	4	454	Instrum Meth Analysis	3
(B)	447	General Biochemistry	4	454	Instrum Meth Analysis	3
(B)	449	Adv Biochem Lab	3	454	Instrum Meth Analysis	3
(A)	453	Environmental Chem	3	454	Instrum Meth Analysis	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sen. Hrs.

Computer Science (CS)

(A)	100	Computer Basics	4	100	Computer Basics	4	3
(A)	101	Intro to Programming	5	101	Intro to Programming	5	3
(A)	103	FORTRAN Programming	4	103	FORTRAN Programming	4	3
(E)	104	Programming Techniq	4	(deleted)	(deleted)		3
(A)	180	Intro Programming	1-4	180	Intro Programming	1-4	1-3
(E)	200	Computers & Society	2	(deleted)	(deleted)		3
(A)	201	Assembler Lang Prog	4	201	Assembler Lang Prog	4	3
(A)	202	Systems Programming	4	202	Systems Programming	4	3
(A)	205	Data/File Structures	4	205	Adv Programming Tech	4	3
(A)	260	Bus Programming Prin	4	260	Bus Programming Prin	4	3
(A)	305	Data Structures	4	305	Data Structures	4	3
(A)	306	Program Languages	4	306	Program Languages	4	3
(A)	307	Computer Orgn	4	307	Computer Orgn	4	3
(A)	313	Elem Mathematc Logic	4	313	Elem Mathematc Logic	4	3
(E)	350	Numerical Methods	4	(deleted)	(deleted)		3
(A)	360	Tech CDBL Prog	4	360	CGOS Programming	4	3
(E)	363	Job Control Language	2	(deleted)	(deleted)		3
(A)	390	Practicum in Comp Sc	1-8	390	Practicum in Comp Sc	1-8	1-6
(E)	400	Reading FORTRAN	1	(deleted)	(deleted)		3
(E)	405	Program Lang Design	4	(deleted)	(deleted)		3
(A)	407	Adv Computer Orgn	4	407	Adv Computer Orgn	4	3
(A)	408	Operating Systems	4	408	Operating Systems	4	3
(A)	409	Lang Translation Sys	4	409	Lang Design & Impl	4	3
(A)	410	Formal Lang Theory	4	410	Formal Lang Theory	4	3
(A)	420	Art Int-Heuristic Pr	4	420	Art Int-Heuristic Pr	4	3
(A)	425	Computer Graphics	4	425	Computer Graphics	4	3
(A)	428	Mini/Micro Computers	4	428	Microcomputer Systems	4	3
(A)	429	Mini/Micro Applicat	4	464	Software Development	4	3
(A)	440	Optimization Techniq	4	440	Optimization Techniq	4	3
(A)	442	Simulation Techniq	4	442	Simulation Techniq	4	3
(A)	451	Numerical Analysis	4	451	Numerical Analysis	4	3
(A)	452	Numerical Analysis	4	452	Numerical Analysis	4	3
(A)	462	Database Mgt Systems	4	462	Database Mgt Systems	4	3
(A)	429	Mini/Micro Applicat	4	464	Software Development	4	3
(A)	482	Sp Sem Computer Appl	1-8	480	Seminar Comput Appl	1-8	1-3
(A)	490	Independent Project	1-4	490	Independent Project	1-4	1-3
(A)	492	Sp Sem Computer Appl	1-8	(480)	Seminar Comput Appl	1-8	1-3
(A)	500	Topical Comput Appl	4	500	Computing Grad Stud	4	3
(B)	501	Computer System Orgn	5	501	Intro Grad Study CS	5	2
(A)	503	Statistical Packages	4	502	Computer System Orgn	4	3
(A)	507	Architecture-Comput	4	507	Architcture-Comput	4	3
(A)	508	Adv Operating System	4	508	Adv Operating System	4	3
(A)	509	Adv Compiler Design	4	509	Adv Compiler Design	4	3
(A)	511	Automata-Comput Theo	4	511	Automata-Comput Theo	4	3
(A)	512	Analysis Algorithms	4	512	Analysis Algorithms	4	3
(A)	529	Communication Netwks	4	529	Communication Netwks	4	3
(A)	546	Math Programming Sys	4	540	Math Programming Sys	4	3
(E)	548	Queueing Systems	4	(deleted)	(deleted)		3
(E)	555	Graph Theory	4	(deleted)	(deleted)		3
(A)	562	Tech Database Orgn	4	562	Tech Database Orgn	4	3
(A)	564	Technol Comp Ctr Mgt	4	564	Computer Center Mgt	4	3
(A)	570	Readings Comput Sci	1-6	570	Readings Comput Sci	1-6	1-4
(A)	580	Grad Seminar	1-6	580	Grad Seminar	1-6	1-4
(E)	597	Research Methods	1	(deleted)	(deleted)		3
(A)	598	Directed Research	1-6	598	Directed Research	1-6	1-4
(A)	599	Thesis Research	1-6	599	Thesis Research	1-6	1-6

College Student Personnel (CSP)

(A)	480	Seminar in CSP	1-4	480	Seminar in CSP	1-4	1-3
(A)	481	Intro to Res Life for Paraprof	2	481	Intro to Res Life for Paraprof	2	1
(A)	482	Peer Advising Skills	2	482	Peer Advising Skills	2	1
(A)	483	Peer Advising Pract	1-3	483	Peer Advising Pract	1-3	1-2
(A)	501	Stud Pers Prog in Higher Ed	4	501	Stud Pers Prog in Higher Ed	4	3
(A)	502	Char and Behav Pat of Young Adults	4	502	Char and Behav Pat of Young Adults	4	3
(A)	503	Issues in CSP	4	503	Issues in CSP	4	2
(A)	504	Stud Dev Prog to the Two Yr Coll	4	504	Stud Dev Prog in the Two Yr Coll	4	3
(A)	505	Basic Doc in CSP	4	505	Basic Doc in CSP	4	2
(A)	506	Themo and Assess of Educ Envir	4	506	Themo and Assess of Educ Envir	4	3
(A)	570	Rdgs in App of CSP	1-6	570	Con and Proc	1-6	1-4
(A)	576	Super Couns Pract CSP	5	576	Super Couns Pract CSP	5	3
(A)	580	Grad Sem in CSP	1-5	580	Grad Sem in CSP	1-5	1-3
(A)	585	Super Pract in CSP	1-6	585	Super Fld Exp in CSP	1-6	1-3
(A)	589	Internshp, Fld Plcmt, Pract in CSP	1-6	589	Practicum in CSP	1-6	1-4
(A)	590	Tch CSP at Post Sec Lvl	1-4	590	Tch CSP at Post Sec Lvl	1-4	1-3
(A)	593	Workshp Curr Top CSP	1-4	593	Workshp Curr Top CSP	1-4	1-2
(A)	598	Dir Research	1-6	598	Dir Research	1-6	1-4
(A)	599	Thesis Research	1-6	599	Thesis Research	1-6	1-6

Economics (ECON)

(A)	100	Develop Amer Economy	4	100	Develop Amer Economy	4	3
(A)	200	Intro to Economics	4	200	Intro to Economics	4	3
(A)	202	Principles Economics	4	202	Principles Economics	4	3
(A)	203	Principles Economics	4	203	Principles Economics	4	3
(A)	302	Inter Micro Theory	4	302	Inter Micro Theory	4	3
(A)	303	Inter Macro Theory	4	303	Inter Macro Theory	4	3
(A)	304	Managerial Economics	4	304	Managerial Economics	4	3
(A)	311	Money Banking Pu Pol	4	311	Money Banking Pu Pol	4	3
(A)	321	Labor Economics	4	321	Labor Economics	4	3
(D)	322	Labor Relations Pol	4	(422)	Labor Relations Pol	4	3
(A)	323	Unemplnt-Income Main	4	323	Unemplnt-Income Main	4	3
(A)	331	Public Finance	4	331	Public Finance	4	3
(A)	332	State Local Govt Fin	4	332	State Local Govt Fin	4	3
(D)	336	Public Expenditures	4	(436)	Public Expend Analysis	4	3
(B)	341	Transportation Econ	4	(447)	Econ Reg Industries	4	3
(B)	447	Econ Reg Industries	4	351	Internatl Trade Fin	4	3
(A)	351	Internatl Trade Fin	4	(454)	Economic Development	4	3
(E)	361	Urban & Region Econ	4	(472)	Comp Econ Systems	4	3
(B)	371	Economic Development	4	(472)	Comp Econ Systems	4	3
(B)	372	Comparative Econ Sys	4	(472)	Comp Econ Systems	4	3
(A)	472	The Soviet Economy	4	(472)	Comp Econ Systems	4	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sen. Hrs.

(A)	400	Math for Economists	4	400	Math for Economists	4	3
(A)	401	Mathematical Econ	4	401	Mathematical Econ	4	3
(A)	402	Econometrics	4	402	Econometrics	4	3
(A)	404	Business Conditions	4	404	Business Conditions	4	3
(A)	414	Monetary Fiscal Pol	4	414	Monetary Fiscal Pol	4	3
(D)	(322)	Labor Relations Pol	4	(422)	Labor Relations Pol	4	3
(A)	423	Labor-Mgmt Relations	4	423	Labor-Mgmt Relations	4	3
(A)	424	Income Wages Welfare	4	424	Income Wages Welfare	4	3
(A)	425	Health Care Economics	4	425	Health Care Economics	4	3
(A)	435	Environmental Econ	4	435	Econ Energy, Environ	4	3
(D)	(336)	Public Expenditures	4	436	Public Expenditures	4	3
(D)	(461)	Real Estate Finance	4	441	Real Estate Finance	4	3
(B)	447	Econ Reg Industries	4	447	Econ Reg Industries	4	3
(A)	451	Internal Economics	4	451	Internal Economics	4	3
(B)	453	Econ of Latin Amer	4	452	Internal Monetary	4	3
(B)	(371)	Economic Development	4	454	Economic Development	4	3
(D)	459	Urban Economics	4	(462)	Urban Economics	4	3
(A)	460	Regional Economics	4	460	Regional Economics	4	3
(D)	461	Real Estate Finance	4	(441)	Real Estate Finance	4	3
(D)	(459)	Urban Economics	4	452	Urban Economics	4	3
(A)	471	Industrial Org	4	471	Industrial Org	4	3
(B)	(372)	Comparative Econ Sys	4	472	Comp Econ Systems	4	3
(B)	(474)	The Soviet Economy	4	472	Comp Econ Systems	4	3
(A)	473	History Econ Thought	4	473	History Econ Thought	4	3
(A)	474	The Soviet Economy	4	473	History Econ Thought	4	3
(A)	475	Econ of Public Educ	1-4	475	Econ of Public Educ	1-4	1-3
(A)	476	Contemp Econ Probl	4	476	Contemp Econ Probl	4	3
(A)	491	Studies in Economics	2-5	491	Studies in Economics	2-5	1-3
(A)	495	Readings for Honors	4-9	495	Readings for Honors	4-9	3-6
(E)	500	Economic Analysis	6	500	(deleted)		3
(A)	501	Price Theory	4	501	Price Theory	4	3
(A)	502	Income Analysis	4	502	Income Analysis	4	3
(A)	503	Devel Econ Concepts	4	503	Devel Econ Concepts	4	3
(A)	505	Competit & Monopoly	4	505	Competit & Monopoly	4	3
(A)	506	Quantitative Econ	4	506	Quantitative Econ	4	3
(A)	509	Economic Policy	4	509	Economic Policy	4	3
(A)	510	Adv Microecon Theory	4	510	Adv Microecon Theory	4	3
(A)	511	Aggregative Econ	4	511	Aggregative Econ	4	3
(A)	512	Monetary Theory Appl	4	512	Monetary Theory & Pol	4	3
(A)	523	Sem Labor Relations	4	523	Sem Labor Relations	4	3
(A)	524	Econ Probl of Labor	4	524	Econ Probl of Labor	4	3
(A)	531	Econ Public Sector	4	531	Econ Public Sector	4	3
(A)	552	Sem Internatl Econ	4	552	Sem Internatl Econ	4	3
(A)	552	Less-Devel Countries	4	552	Less-Devel Countries	4	3
(A)	561	Sem Reg Urban Econ Anal	4	561	Sem Reg Urban Econ Anal	4	3
(B)	580	Sem in Econ	4	580	Sem in Econ	4	3
(E)	590	Sem Adv Econ Theory	4	580	Sem in Econ	4	3
(A)	597	Econ Research Sem	4	597	Econ Research Sem	4	3
(A)	570	Reading in Economics	2-5	570	Reading in Economics	2-5	1-4
(A)	589	Internshp	1-8	589	Internshp	1-8	1-6
(E)	595	Wksp Topic-Economics	1-9	595	(deleted)		3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9
(A)	6400	Math for Economists	4	6400	Math for Economists	4	3
(A)	6401	Mathematical Econ	4	6401	Mathematical Econ	4	3
(A)	6402	Econometrics	4	6402	Econometrics	4	3
(A)	6414	Monetary Fiscal Pol	4	6414	Monetary Fiscal Pol	4	3
(A)	6424	Income Wages Welfare	4	6424	Income Wages Welfare	4	3
(A)	6451	Internal Economics	4	6451	Internal Economics	4	3
(A)	6452	Internal Monetary	4	6452	Internal Monetary	4	3
(D)	6459	Urban Economics	4	(6462)	Urban Economics	4	3
(A)	6460	Regional Economics	4	6460	Regional Economics	4	3
(D)	(6459)	Urban Economics	4	6462	Urban Economics	4	3
(A)	6472	Comp Econ Systems	4	6472	Comp Econ Systems	4	3
(B)	6474	Soviet Economy	4	6472	Comp Econ Systems	4	3
(A)	6475	Econ of Public Educ	1-4	6475	Econ of Public Educ	1-4	1-3
(A)	395	Wksp Topics Ed. Admin.	1-5	395	Wksp Topics Ed. Admin.	1-5	1-3
(A)	408	Organ. Adm Ed Amer Soc	4	409	Organ. Adm Ed Amer Soc	4	3
(A)	413	Admin Schl Discipline	4	413	Admin Schl Discipline	4	3
(A)	460	Wksp Teacher Role Staff	4	460	Wksp Teacher Role Staff	4	1
(A)	6460	Wksp Teacher Role Staff	4	6460	Wksp Teacher Role Staff	4	3
(A)	490	Probl Ed Admn Sup	1-5	490	Probl Ed Admn Sup	1-5	1-3
(A)	498	Wksp Commun Resource	4	498	Wksp Commun Resource	4	3
(A)	6498	Wksp Commun Resource	4	6498	Wksp Commun Resource	4	3
(A)	501	Prin Publ Schl Admn	5	501	Prin Publ Schl Admn	5	3
(A)	502	School Principalship	4	502	School Principalship	4	3
(A)	505	Educ Supervision	5	505	Educ Supervision	5	3
(A)	508	EmergTopic Ed Admn	4	508	EmergTopic Ed Admn	4	3
(A)	509	Schl Publ Relations	4	509	Schl Publ Relations	4	3
(A)	513	Planned Field Exper	4	510	Planned Field Exper	4	3
(A)	512	Schl Boards Amer Ed	4	512	Schl Boards Amer Ed	4	3
(A)	513	Admin Schl Discipline	4	513	Admin Schl Discipline	4	3
(A)	514	Planning in Educ	4	514	Planning in Educ	4	3
(A)	570	Readings in Ed Admn	1-6	570	Readings in Ed Admn	1-6	1-4
(A)	580	Graduate Seminar	1-5	580	Graduate Seminar	1-5	1-3
(E)	582	Coop Teach in Stdt Tchng	4	(deleted)	(deleted)		3
(A)	589	Pract Ed Admn-Supvn	4	589	Pract Ed Admn-Supvn	4	3
(A)	590	Teach Adm-Sup Pst Sec	1-4	590	Teach Adm-Sup Pst Sec	1-4	1-3
(A)	595	Wksp Topics Ed Admn	1-6	595	Wksp Topics Ed Admn	1-6	1-3
(A)	598	Directed Research	1-5	598	Directed Research	1-5	1-3
(A)							

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.

Education Curriculum and Instruction (EDCI)

(A)	100	Developmental Reading	2	100	Developmental Reading	2	
(A)	101	Speed Reading	2	101	Speed Reading	2	
(A)	202	Exploring the Profession	3	202	Exploring the Profession	3	
(A)	221	Early Child Ed Con. Dev. I	3	221	Early Child Ed. Con. Dev. I	3	
(A)	321	Early Child Ed Con. Dev. II	3	321	Early Child Ed Con. Dev. II	3	
(A)	350	Classroom Appl. of Meth.	3	350	Classroom Appl. of Meth.	3	
(A)	351	Soc. St. in Elem. School	3	351	Soc. St. in Elem. School	3	
(A)	352	Mathematics in Elem. School	3	352	Mathematics in Elem. School	3	
(A)	353	Science in Elem. School	3	353	Science in Elem. School	3	
(A)	355	Reading in Elem. School	3	355	Reading in Elem. School	3	
(A)	356	Language Arts in Elem. Sch.	3	356	Language Arts in Elem. Sch.	3	
(A)	357	Kind-Prim Cur. & Methods	3	357	Kind-Prim Cur. & Methods	3	
(A)	359	Indiv. of Read. Test in Class	4	359	Indiv. of Read. Test in Class	4	
(A)	360	Cont Read Spec Subj	3	360	Cont Read Spec Subj	3	
(A)	370	Gen. Tch. Methods Sec. Sch.	3	370	Gen. Tch. Methods Sec. Sch.	3	
(A)	371	English in Sec. School	4	371	English in Sec. School	4	
(A)	372	Speech in Sec. School	4	372	Speech in Sec. School	4	
(A)	373	For. Lang. Ed. in the Sch.	4	373	For. Lang. Ed. in the Sch.	4	
(A)	374	Mathematics in Sec. Sch.	4	374	Mathematics in Sec. Sch.	4	
(A)	375	Science in Sec. Sch.	4	375	Science in Sec. Sch.	4	
(A)	376	Soc. St. in Sec. Sch.	4	376	Soc. St. in Sec. Sch.	4	
(A)	378	Jour. Met For HS Teachers	4	378	Jour. Met For HS Teachers	4	
(D)	383	Tch. For. Lang. Skills	4	(429)	Tch. For. Lang. Skills	4	
(A)	395	Workshops-Cur. Topics	1-5	395	Workshops-Cur. Topics	1-5	
(C)	6401	Cont. Sec. Education	4	(absorbed into 583)			
(A)	6417	Urban Education	4	(deleted)			
(A)	6420	Dev. Reading in Cont Area	4	6420	Dev. Reading in Cont Area	4	
(D)	423	Inv. in Tch. of Arithmetic	4	423	Inv. in Tch. of Arithmetic	4	
(D)	424	Inv. in Tch. of Soc. St.	4	424	Inv. in Tch. of Soc. St.	4	
(D)	425	Inv. in Tch. of Lang. Arts	4	425	Inv. in Tch. of Lang. Arts	4	
(D)	426	Inv. in Tch. of Elem. Science	4	426	Inv. in Tch. of Elem. Science	4	
(E)	427	Inv. in Tch. of Envr. Educ.	4	(deleted)			
(E)	428	Inv. in Tch. of Soc. St. 7-12	4	(deleted)			
(D)	483	Tch. For. Lang. Skills	4	429	Tch. For. Lang. Skills	4	
(A)	6471	Direct Spch Act. in HS	4	6471	Direct Spch Act. in HS	4	
(A)	490	Problems in Education	1-5	490	Problems in Education	1-5	
		(replaces EDCO 331, 332)		492	Student Teaching	1-10	
		(replaces EDCO 381, 382)		497	Student Teaching	1-10	
(A)	510	Adv. Lang. Area Inst.	4	510	Adv. Lang. Area Inst.	4	
(A)	511	The Curriculum	5	511	The Curriculum	5	
(C)	512	Instructional Designs	4	610	Cur. & Instructional Design	3	
(C)	513	Cur. Design & Dev.	4	(absorbed into 611)			
(E)	514	Assess. & Eval. of Cur.	4				

*Have been changed to undergraduate credit only.

(A)	516	Cur. & Inst. in Early Ch. Ed.	4	516	Cur. & Inst. in Early Ch. Ed.	4	
(A)	520	Reading & Study Skills for Sec. & Junior Colleges	4	520	Reading & Study Skills for Sec. & Junior Colleges	4	
(B)	521	Found. of Reading Instruction	4	521	Found. of Reading Instruction	4	
(B)	524	Read Cl.-Diag. Case Studies	4	521	Corr. & Dec. Rtg. Sac.	4	
(A)	525	Read Cl.-Tutorial Proc.	4	525	Strac. for Fac. Rtg. Sac.	4	
(A)	529	Lead. in Rd. & Comm. Skills	4	529	Lead. in Rd. & Comm. Skills	4	
(A)	545	Prob. in Tch. H.S. Science	4	545	Prob. in Tch. H.S. Science	4	
(A)	546	Sem. in Sec. Sch. Math.	4	546	Sem. in Sec. Sch. Math	4	
(A)	547	Inv. in Sec. Sch. Soc. St.	4	547	Inv. in Sec. Sch. Soc. St.	4	
(A)	570	Read. in Curr. & Inst.	1-6	570	Read. in Curr. & Inst.	1-6	
(A)	580	Grad. Sem. in Curr. & Inst.	1-5	580	Grad. Sem. in Curr. & Inst.	1-5	
(A)	581	Theory & Prac. in Elem. Sch.	4	581	Theory & Prac. in Elem. Sch.	4	
(C)	583	Theory & Prac. in Sec. Sch.	4	583	Theory & Prac. in Sec. Sch.	4	
(A)	584	Anal. & Eval. of Class. Tch.	4	584	Anal. & Eval. of Class. Tch.	4	
(A)	589	Prac. in Curr. & Inst.	1-6	589	Prac. in Curr. & Inst.	1-6	
(A)	590	Tch. Curr. & Inst. P. Sec. Sch.	1-4	590	Tch. Curr. & Inst. P. Sec. Sch.	1-4	
(A)	595	Workshop on Cur. Top. in C & I	1-6	595	Workshop on Cur. Top. in C & I	1-6	
(A)	598	Directed Research	1-6	598	Directed Research	1-6	
(A)	599	Thesis Research	1-6	599	Thesis Research	1-6	
(C)	612	Instructional Designs	4	610	Cur. & Inst. Design	3	
(C)	613	Cur. Design & Dev.	4	611	Adv. Theor. in Cur. & Eval.	4	
(E)	614	Assess. & Eval. of Cur.	4	621	Inves. in Tchng Reading	3	
(A)	621	Inves. in Tchng Reading	4	622	Seminar in Reading	3	
(A)	622	Seminar in Reading	4	624	Rd. Cl.-Diag Case Std for Ch. with Severe Lang. Disab.	4	
(A)	624	Rd. Cl.-Diag Case Std for Ch. with Severe Lang. Disab.	4	625	Rd. Cl.-Tut. Proc. for Ch. with Severe Lang. Disabilities	4	
(A)	625	Rd. Cl.-Tut. Proc. for Ch. with Severe Lang. Disabilities	4	625	Rd. Cl.-Tut. Proc. for Ch. with Severe Lang. Disabilities	4	
(A)	680	Advanced Seminar in EDCI	1-5	680	Advanced Seminar in EDCI	1-5	

Education College (EDCO)

(D)	331	Student Teaching	13	**492	Student Teaching	1-11	
(D)	332	Student Teaching	3-11	(deleted)			
(D)	381	Student Teaching	15	**497	Student Teaching	1-10	
(E)	382	Student Teaching	3-11	(deleted)			
(E)	490	Problems in Education	1-5	(deleted)			

**Prefix will be used for the unit in which the supervising teacher in a faculty member. All EDCO course prefixes are being removed from the inventory. 492 and 497 will become common numbers for all units. Units to be included are: EDAS, EDPI, EDCI, EDSF, HOEC, IE, PEP, HEO, LEH, GOIS, BUSE, ART. (HUSD will process number change through College of Physical Arts. As indicated on course description attachments, HOEC and BUSE will utilize only the 497 number.)

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.

Educational Foundations and Inquiry (EDFI)

(A)	202	Exploring Profession	3	202	Exploring Profession	3	
(A)	302	Educational Psych	4	302	Educational Psych	4	
(A)	342	Psych of Childhood	4	342	Psych of Childhood	4	
(A)	395	Wkshp Current Topics	1-5	395	Wkshp Current Topics	1-5	
(A)	6402	Assmt-Eval in Educ	4	6402	Assmt-Eval in Educ	4	
(A)	408	Educ Pluralistic Soc	4	408	Educ Pluralistic Soc	4	
(A)	6411	Tchr Role Guidance	4	6411	Tchr Role Guidance	4	
(A)	412	Educ Disadvantaged	3	412	Educ Disadvantaged	3	
(A)	6415	Spacship Earth Sum	4	6415	Spacship Earth Sum	4	
(A)	6416	Phil Environment Ed	4	6416	Phil Environment Ed	4	
(A)	6417	Urban Education	4	6417	Urban Education	4	
(A)	429	Yng-Atypical Childrn	4	429	Yng-Atypical Childrn	4	
(A)	6460	Sex Stereotype-Discr	4	6460	Sex Stereotype-Discr	4	
(A)	6481	Trng Behav Analysis	4-8	6481	Trng Behav Analysis	1-5	
(A)	482	Direct Study Child	1-5	482	Direct Study Child	1-5	
(A)	490	Probl Found Inquiry	5-9	490	Probl Found Inquiry	1-3	
		(replaces EDCO 331, 332)		492	Student Teaching	1-10	
		(replaces EDCO 381, 382)		497	Student Teaching	1-10	
(A)	500	Philosophy of Educ	4	500	Philosophy of Educ	4	
(A)	501	Comparative Educ	4	501	Comparative Educ	4	
(A)	502	History of Education	4	502	History of Education	4	
(A)	523	Found Early Child Ed	4	523	Found Early Child Ed	4	
(A)	525	Direct Study Child	4-9	525	Direct Study Child	2	
(A)	569	Intro Counsel & Guid	4	569	Intro Counsel & Guid	3	
(A)	570	Readings-Ed Found-Inq	1-6	570	Readings-Ed Found-Inq	1-4	
(A)	571	Human Growth & Devel	5	571	Human Growth & Devel	3	
(A)	572	Mental Health in Ed	5	572	Mental Health in Ed	3	
(A)	573	Adolescence	4	573	Adolescence	3	
(A)	574	Career-Life Pl Arch	4	574	Career-Life Pl Arch	3	
(A)	575	Theoret Found Coun-G	4	575	Theoret Found Coun-G	4	
(C)	581	Skill Techn Counsel	4	(deleted)			
(A)	577	Contemp Theory & Res	4	577	Contemp Theory & Res	3	
(A)	578	Expl Human Potential	5	578	Expl Human Potential	3	
(A)	579	Group Counsel Proced	4	579	Group Counsel Proced	3	
(A)	581	Seminar Ed Found-Inq	1-5	580	Seminar Ed Found-Inq	1-4	
(C)	583	Skill Techn Counsel	4	(combined with 575)			
(A)	582	Prin Elem Guidance	4	582	Prin Elem Guidance	3	
(A)	583	Testing Practicum	4	583	Testing Practicum	3	
(E)	584	Instr-Coun Minority	4	(deleted)			
(A)	585	Counseling Func-Pract	4	585	Counseling Func-Pract	3	
(A)	589	Guid-Coun Field Exp	2-6	585	Guid-Coun Field Exp	1-4	
(A)	594	Educ Data Processing	3	594	Educ Data Processing	3	
(A)	595	Wksp Topics Found-Inq	1-6	595	Wksp Topics Found-Inq	1-4	
(A)	596	Statistics in Educ	4	596	Statistics in Educ	3	
(A)	597	Research in Educ	5	597	Research in Educ	3	
(A)	598	Directed Research	1-6	598	Directed Research	1-4	
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	
(A)	602	Hist-Phil Higher Ed	4	602	Hist-Phil Higher Ed	3	
(A)	671	Sem Educational Psyc	5	671	Sem Educational Psyc	3	
(A)	672	Social Psychology	4	672	Social Psychology	3	
(A)	676	Practicum in Counsel	5	676	Practicum in Counsel	4	
(A)	677	Org Mgt Guidance Prog	4	677	Org Mgt Guidance Prog	2	
(A)	690	Nonparametric Statis	4	690	Nonparametric Statis	3	
(A)	696	Adv Educ Statistics	5	696	Adv Educ Statistics	3	
(A)	791	Cultural Basis of Ed	4-9	791	Cultural Basis of Ed	1-4	
(A)	797	Sem Educ Research	4	797	Sem Educ Research	3	

Education, Special (EDSE)

(A)	311	Excep Child Reg Clasm	3	311	Excep Child Reg Clasm	2	
(A)	395	Wksp Current Topics	1-6	395	Wksp Current Topics	1-3	
(A)	421	Yng Hndcp Child Clasm	4	421	Yng Hndcp Child Clasm	3	
(A)	6431	Ed Exceptional Child	4	6431	Ed Exceptional Child	2	
(A)	6432	Prin Prac Special Ed	3	6432	Prin Prac Special Ed	3	
(A)	6433	Ed Ment Retard Child	4	6433	Ed Ment Retard Child	2	
(E)	434	Lang Arts for EMR	5	(deleted)			
(E)	435	Artsh and Sel for EMR	5	(deleted)			
(E)	436	Soc Stud for EMR	5	(deleted)			
(A)	6437	Soc Stud for EMR Chld	5	6437	Soc Stud for EMR Chld	5	
(A)	6438	Inst Prep for EMR	4	6438	Inst Prep for EMR	3	
(C)	454	Ed Proc Chil Lea Dis	5	(absorbed into 438)			
(C)	439	Study Train Ment Ret	4	(absorbed into 470)			
(A)	6440	Cur Deve & Meth Mrc	3	6440	Cur Deve & Meth Mrc	3	
(A)	441	Educ Gifted Tal Child	4	441	Educ Gifted Tal Child	3	
(A)	442	Appl Clasm Mat Ex Ch	4	442	Appl Clasm Mat Ex Ch	3	
(A)	443	Prac Excep Child	3	443	Prac Excep Child	3	
(A)	6445	Sheltered Workshop	3	6445	Sheltered Workshop	2	
(A)	448	Instr Lang Arts Hcp	5	447	Instr Lang Arts Hcp	3	
(A)	451	ED Understng L/BD Ch	5	448	Mat Sci Soc Sc Hcp	3	
(A)	6453	Educ Evaluat L/BD Ch	4	6453	Educ Evaluat L/BD Ch	3	
(C)	454	Educ Prac for Ch L/DD					

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	580	Seminar Spec Ed/Sc Py	1-6	580	Seminar Spec Ed/Sc Py	1-4	1-4
(A)	589	Intern-Fld Plac-Py	1-6	589	Intern-Fld Plac-Py	1-4	1-4
(A)	590	Tch Spec Ed Coll Lav	1-4	590	Tch Spec Ed Coll Lav	1-3	1-3
(A)	595	Wksp Topics Spec Ed	1-5	595	Wksp Topics Spec Ed	1-3	1-3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9
(C)	615	Sch Psych Sup Exp I	1-10	615	Sch Psycho Sup Exp I	1-6	1-6
(C)	616	Sch Psych Sup Exp II	1-10	616	Sch Psych Sup Exp II	1-6	1-6
(E)	617	Sch Psych Sup Exp III	1-10				
(C)	680	Sch Psych Sup Exp Sem I	1-6	680	Sch Psych Sup Exp Sem I	1-4	1-4
(C)	680	Sch Psych Sup Exp Sem II	1-6	680	Sch Psych Sup Exp Sem II	1-4	1-4
(E)	680	Sch Psych Sup Exp Sem III	1-6				

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	581	Sem. Amer. Studies	4	501	Sem. Amer. Studies	4	3
(A)	589	Internship Tech Writ.	1-12	589	Internship Tech Writ	1-12	1-9
(A)	590	Teaching of Writing	4	590	Teaching of Writing	4	3
(A)	591	Camp Instructor Wksp	4	591	Camp Instructor Wksp	4	3
(A)	592	Direct Tchng Writing	3	592	Direct Tchng Writing	3	2
(A)	593	Teaching Literature	4	593	Teaching Literature	4	3
(A)	595	Wkshp. Current Topics	1-6	595	Wkshp. Current Topics	1-6	1-4
(A)	597	Bibliog-Research Meth	4	597	Bibliog-Research Meth	4	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9
(A)	600	Old English Lang/Lit	4	600	Old English Lang/Lit	4	3
(A)	602	Chaucer's Maj Poetry	4	602	Chaucer's Maj Poetry	4	3
(C)	604	Renaissance Poetry	4	604	16th-17th C. Prose and Poetry	4	3
(C)	605	Early Eng - Tudor Drama	4	605	(combine 604 and 610)	4	3
(A)	607	Studies in Shakespeare	4	607	Studies in Shakespeare	4	3
(A)	608	Milton	4	608	Milton	4	3
(C)	609	Jacobean-Caroline Drama	4	609	(absorbed into 605)	4	3
(A)	610	English Prose 16th-17th C.	4	610	(absorbed into 604)	4	3
(A)	612	The Augustan Age	4	612	The Augustan Age	4	3
(A)	614	Restoration-18 C Drama	4	614	Restoration-18 C Drama	4	3
(A)	616	18th Century Novel	4	616	18th Century Novel	4	3
(A)	618	Wordsworth-Coleridge	4	618	Wordsworth-Coleridge	4	3
(A)	620	Dickens and Hardy	4	620	Dickens and Hardy	4	3
(A)	622	Tennyson & Browning	4	622	Tennyson & Browning	4	3
(A)	626	Eliot and Yeats	4	626	Eliot and Yeats	4	3
(A)	628	Joyce	4	628	Joyce	4	3
(A)	630	Modern British Drama	4	630	Modern British Drama	4	3
(A)	632	Amer Transcendentalism	4	632	Amer Transcendentalism	4	3
(A)	633	Hawthorne & Melville	4	633	Hawthorne & Melville	4	3
(A)	634	Twain and James	4	634	Twain and James	4	3
(A)	636	19 Cent Amer Poetry	4	636	19 Cent Amer Poetry	4	3
(A)	640	Mod American Poetry	4	640	Mod American Poetry	4	3
(A)	643	Mod American Novel	4	643	Mod American Novel	4	3
(A)	644	Mod American Drama	4	644	Mod American Drama	4	3
(A)	645	Cont Brit-Amer Drama	4	645	Cont Brit-Amer Drama	4	3
(A)	646	Cont Brit-Am Poetry	4	646	Cont Brit-Am Poetry	4	3
(A)	647	Cont Brit-Am Fiction	4	647	Cont Brit-Am Fiction	4	3
(A)	648	Studio Ethnic Liter	4	648	Studies Ethnic Liter	4	3
(A)	650	Research-Composition	4	650	Research-Composition	4	3
(A)	652	Language Variation	4	652	Language Variation	4	3
(A)	654	Rhet Written Discrse	4	654	Rhet Written Discrse	4	3
(A)	656	Graduate Writing	4	656	Graduate Writing	4	3
(A)	660	Grad Writers Wkshp	5	660	Grad Writers Wkshp	5	4
(A)	663	Std Contemp Poetry	4	663	Std Contemp Poetry	4	3
(A)	664	Std. Contemp. Fiction	4	664	Std. Contemp. Fiction	4	3
(A)	670	Readings in English	1-4	670	Readings in English	1-4	1-3
(A)	674	Internship Tech Writ	1-12	674	(deleted)	1-12	3
(A)	675	Lit. Crit. Class-Romantic	4	675	Lit. Crit. Class-Romantic	4	3
(A)	676	Hist Lit Crit Modern	4	676	Hist Lit Crit Modern	4	3
(A)	680	Graduate Seminar	4	680	Graduate Seminar	4	3
(A)	686	Studies Linguistics	4	686	Studies Linguistics	4	3
(A)	689	Internship	1-12	689	Internship	1-12	1-9
(A)	691	Tch Eng-Second Lang	4	691	Tch Eng-Second Lang	4	3
(A)	698	Dir. Research Writ	2	698	Dir. Research Writ	2	2
(A)	760	Adv. Bibliog-Editing	4	760	Adv. Bibliog-Editing	4	3
(A)	770	Problems in Research	1-4	770	Problems in Research	1-4	1-3
(A)	780	Research Seminar	4	780	Research Seminar	4	3
(A)	799	Dissertation Research	1-16	799	Dissertation Research	1-16	1-16

English (ENG)

A)	100	Engl. as Foreign Lang.	5	100	Engl. as Foreign Lang.	4	4
A)	110	Developmental Writing	4	110	Developmental Writing	3	3
A)	111	Introductory Writing	4	111	Introductory Writing	3	3
A)	112	Varieties of Writing	4	112	Varieties of Writing	3	3
A)	150	Response-Literature	4	150	Response-Literature	2-3	3
A)	200	Literature: (sub-title)	4	200	Literature: (sub-title)	4	4
(C)	201	Writing about Literature	4	201	Literature and Writing (absorbed into 201)	4	4
(C)	202	Intro to Poetry	4	202	(absorbed into 201)	4	4
(C)	203	Intro to Drama	4	203	(absorbed into 201)	4	4
(C)	204	Intro to Fiction	4	204	(absorbed into 201)	4	4
(C)	205	Craft of Poetry	4	205	Craft of Poetry	2	2
(C)	206	Craft of Fiction	4	206	Craft of Fiction	2	2
(C)	207	Intermediate Writing	4	207	Intermediate Writing	3	3
(C)	208	Creative Writing	4	208	Creative Writing	3	3
(C)	209	Creative Writing Wkshp	4	209	Creative Writing Wkshp	3	3
(C)	251	Writing about Films	4	251	Writing about Films	3	3
(C)	261	World Literature	4	261	World Literature to 1400	3	3
(C)	262	World Literature	4	262	World Literature since 1400	3	3
(C)	264	English Lit to 1700	4	264	English Lit to 1700	3	3
(C)	265	English Lit 1700-1900	4	265	English Lit 1700-1900	3	3
(C)	266	American Lit to Civil War	4	266	American Lit to Civil War	3	3
(C)	267	Am Lit. Civil War-WWI	4	267	Am Lit. Civil War-WWI	3	3
(C)	272	Lit of Minorities	4	272	Lit of Minorities	3	3
(C)	290	Language Study I	4	290	Language Study I	3	3
(C)	291	Language Study II	4	291	Language Study II	3	3
(C)	300	Themes in Literature	4	300	Themes in Literature	3	3
(C)	301	Shakespeare	4	301	Shakespeare	3	3
(C)	306	The Bible	4	306	The Bible	3	3
(C)	307	Great Books	4	307	Great Books	3	3
(C)	308	Creative Writing	5	308	Creative Writing	3	3
(C)	320	Modern Poetry	4	320	Modern Poetry	3	3
(C)	322	19th Cent Am Fiction	4	322	19th Cent Am Fiction	3	3
(C)	323	Modern Fiction	4	323	Modern Fiction (deleted)	3	3
(C)	324	Mod Novel: Japanese	4	324	Modern Drama	3	3
(C)	325	Modern Drama	4	325	Modern Drama	3	3
(C)	330	Contemporary Poetry	4	330	Contemporary Poetry	3	3
(C)	333	Contemporary Fiction	4	333	Contemporary Fiction	3	3
(C)	335	Contemporary Drama	4	335	Contemporary Drama	3	3
(C)	342	Children's Literature	5	342	Children's Literature	4	4
(C)	343	Lit for Adolescents	4	343	Lit for Adolescents	4	4
(C)	380	Intro Eng Linguistics	5	380	Intro Eng Linguistics	3	3
(C)	381	Grammar and Writing	4	381	Grammar and Writing	3	3
(C)	385	Studies in Lit-Film	4	385	Studies in Lit-Film	3	3
(C)	400	Chaucer	4	400	Chaucer	3	3
(C)	401	Adv Shakespeare	4	401	Adv Shakespeare	3	3
(C)	402	English Medieval Lit	4	402	English Medieval Lit	3	3
(C)	403	16th Cent Poetry/Prose	4	403	16th Cent Poetry/Prose	3	3
(C)	404	17th Cent Writers	4	404	17th Cent Writers	3	3
(C)	406	Renaissance Drama	4	406	Renaissance Drama	3	3
(C)	407	Writer's Workshop	5	407	Writer's Workshop	3	3
(C)	408	Milton	4	408	Milton	3	3
(C)	410	English Rest & 18 C Dm	4	410	English Rest & 18th C Drama	3	3
(C)	411	18th Cent Writers	4	411	18th Cent Writers	3	3
(C)	415	Eng Novel: Defoe - Austen	4	415	Eng Novel: Defoe to Austen	3	3
(C)	416	Eng Novel: 19th Cent	4	416	Eng Novel: 19th Cent	3	3
(C)	417	Romantic Writers	4	417	Romantic Writers	3	3
(C)	418	Victorian Writers	4	418	Victorian Writers	3	3
(C)	419	Mod British Writers	4	419	Mod British Writers	3	3
(C)	420	Mod American Writers	4	420	Mod American Writers	3	3
(C)	423	Women's Studies in Lit	4	423	Women's Studies in Lit	3	3
(C)	430	Amer Transcendentalism	4	430	Amer Transcendentalism	3	3
(C)	435	Hawthorne & Melville	4	435	Hawthorne & Melville	3	3
(C)	442	Studies in Children's Lit	4	442	Studies in Children's Lit (absorbed into 480)	3	3
(C)	452	Studies Eng Lit to 1600	4	452	(absorbed into 480)	3	3
(C)	453	Sc Eng Am Lit 17th-18 Cent	4	453	(absorbed into 480)	3	3
(C)	454	Sc Eng Am Lit 19th Cent	4	454	(absorbed into 480)	3	3
(C)	455	Sc Eng Am Lit 20th Cent	4	455	(absorbed into 480)	3	3
(C)	456	Critical Writing	4	456	Critical Writing	3	3
(C)	470	Tutorial in Lang & Lit (combine 452, 3, 4, 5)	1-5	470	Tutorial in Lang & Lit	1-4	1-4
(C)	472	Mod Scientific Writers	4	472	Special Topics in Literature	3	3
(C)	481	Adv Eng Linguistics	4	481	(deleted)	3	3
(C)	482	History English Language	4	482	Adv Eng Linguistics	3	3
(C)	483	Advanced Writing	4	483	History English Language	3	3
(C)	485	Writing Film Criticism	4	485	Advanced Writing	3	3
(C)	488	Technical Writing	4	488	Writing Film Criticism	3	3
(C)	489	Internship Tech Writ	1-15	489	Technical Writing	3	3
(C)	490	Tutorial in Lang & Lit	1-5	490	Internship Tech Writing	1-9	1-9
(C)	495	Honors Reading	4	495	Tutorial in Lang & Lit	1-4	1-4
(C)	500	Engl as Foreign Lang	3-5	500	Honors Reading	3	3
(C)	510	Old English Liter	2	510	Engl as Foreign Lang (deleted)	1-4	1-4
(C)	511	Middle English Liter	2	511	(deleted)	1-4	1-4
(C)	512	15-16th Non-Dram Lit	2	512	(deleted)	1-4	1-4
(C)	513	Eng Drama thru Reston	2	513	(deleted)	1-4	1-4
(C)	514	17C Non-dramatic Lit	2	514	(deleted)	1-4	1-4
(C)	515	18th Cent Literature	2	515	(deleted)	1-4	1-4
(C)	516	Lit Romantic Period	2	516	(deleted)	1-4	1-4
(C)	517	Lit Victorian Period	2	517	(deleted)	1-4	1-4
(C)	518	Amer Lit to CA 1840	2	518	(deleted)	1-4	1-4
(C)	519	Amer Lit 1840-1910	2	519	(deleted)	1-4	1-4
(C)	520	Amer Lit 20th Cent	2	520	(deleted)	1-4	1-4
(C)	521	British Lit 20th Cent	2	521	(deleted)	1-4	1-4

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE				PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.		Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	
(A)	341	Soviet Union	4	341	Soviet Union	3		(A)	529	Adv Invert Paleo	5	529	Adv Invert Paleo	3	
(A)	342	Western Europe	4	342	Western Europe	2		(E)	532	Hist of Geol	3		(deleted)		
(A)	343	Eastern Asia	4	343	Eastern Asia	3		(B)	533	Paleogeology	5		533	Har Paleobiol + Paleoenviron	4
(A)	344	South & SE Asia	4	344	South & SE Asia	2		(B)	535	Microplaeontology	5		536	Explor Geophysics	3
(A)	345	Middle East	4	345	Middle East	3		(A)	537	Explor Geochem	4		537	Explor Geochem	3
(A)	347	Africa	4	347	Africa	2		(A)	538	Geochem of Sed	5		538	Geochem of Sed	3
(C)	348	Mexico-Cen Am-Caribb	4	348	Mexico-Cen Am-Caribb	3		(A)	539	Glacial Geology	5		539	Glacial Geology	3
(C)	349	South America	4	349	South America	3		(A)	540	Pleistocene Geol	5		540	Pleistocene Geol	3
(A)	350	Anglo-America	4	350	Anglo-America	3		(E)	541	Geochem of Elem	5			(deleted)	
(A)	351	Ohio	4	351	Ohio	3		(A)	543	Geochem of Min	5		543	Thermodyn Geol Systems	3
(A)	400	Special Topics in Geog	4	400	Special Topics in Geog	3		(E)	544	Isotope Geochem	4			(deleted)	
(A)	402	Regional Econ Geog	4	402	Regional Econ Geog	3		(E)	546	X-ray Analysis	5		549	Geol Res & Commun	2
(A)	404	Climatology	4	404	Climatology	3		(A)	550	Research Seminar	1-5		(597)	Research Seminar	1-3
(A)	405	Meteorology & Man	4	405	Meteorology & Man	3		(B)	551	Sem Invert Paleo	3-5				
(A)	408	Concepts Tech Trends	4	408	Concepts Tech Trends	3		(B)	552	Sem Paleobiol Micro	3-5				
(A)	410	Field Techniques	4	410	Field Techniques	3		(B)	553	Sem Vert Paleo	3-5				
(A)	411	Theoretical Cartography	4	411	Theoretical Cartography	3		(B)	554	Sem Fossil Man	3-5				
(A)	412	Interp Aerial Photo	4	412	Interp Aerial Photo	3		(B)	555	Sem Paleogeology	3-5				
(A)	413	Intro Remote Sensing	4	413	Intro Remote Sensing	3		(B)	556	Sem Sedimentology	3-5				
(A)	422	Computer Mapping	4	422	Computer Mapping	3		(B)	557	Sem Geochem Diagen	3-5				
(A)	425	Food Res-Rural Devel	4	425	Food Res-Rural Devel	3		(B)	558	Sem Geomorph & Pleist	3-5				
(A)	426	The American City	4	426	The American City	3		(B)	559	Sem Reservoir Age Dat	3-5		580	Seminars in Geol	2-3
(A)	427	Anal Phys Landscapes	4	427	Anal Phys Landscapes	3		(B)	560	Sem Struct Geol	3-5				
(E)	430	World Cult in Transition	4		(deleted)			(B)	561	Sem Geophysics	3-5				
(A)	433	Soil Classif-Mapping	4	433	Soil Classif-Mapping	3		(B)	562	Sem Theoret Petrol	3-5				
(A)	436	Community-Area Devel	4	436	Community-Area Devel	3		(B)	563	Sem Meta Petrol	3-5				
(A)	442	Resource-Regional Devel	4	442	Resource-Regional Devel	3		(B)	564	Sem Ig Petrol & Petrog	3-5				
(A)	451	Hist Geog Anglo-Am	4	451	Hist Geog Anglo-Am	3		(B)	565	Sem Econ Geol	3-5				
(A)	452	Geopolitics	4	452	Geopolitics	3		(B)	566	Sem Stratigraphy	3-5				
(A)	460	Hydrology	4	460	Hydrology	3		(A)	593	Adv Field Geology	1-9	593	Adv Field Geology	1-6	
(E)	464	Microclimatology	4		(deleted)			(A)	590	Research Seminar	1-5	597	Research Seminar	1-3	
(A)	471	Oceanography	4	471	Oceanography	3		(A)	598	Research Problems	1-9	598	Research Problems	1-3	
(A)	489	Internship	1-4	489	Internship	1-3		(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	
(A)	510	Quant Geog Analysis	4	510	Quant Geog Analysis	3									
(C)	511	Top In Quant Mech	4	511	Top In Quant Mech	3		(A)	100	Inter Lang St: German	2	100	Inter Lang St: German	1	
(C)	512	Spatial Analysis	4	512	Spatial Analysis	3		(B)	101	Elementary German	4	101	Elem Lang and Culture I	4	
(C)	513	Seminar Meteorology	4	513	Sem in Meteor-Climat	3		(B)	102	Elementary German	4	102	Elem Lang and Culture II	4	
(A)	521	Seminar Cartography	4	521	Seminar Cartography	3		(B)	103	Elementary German	4	103	Elem Lang and Culture III	4	
(A)	522	Computer Cartography	4	522	Computer Cartography	3		(B)	117	Beg Convers German	2	117	Beg Convers German I	2	
(A)	523	Geog Soils-Land Use	4	523	Geog Soils-Land Use	3		(B)	118	Beg Convers German	2	118	Beg Convers German II	2	
(A)	525	Sem Population Geog	4	525	Sem Population Geog	3		(A)	131	Beg Reading German	4	131	Beg Reading German	3	
(A)	542	Conservation Ecology	4	542	Conservation Ecology	3		(A)	201	Intermediate German I	4	201	Intermediate German I	3	
(A)	570	Readings Geography	1-4	570	Readings Geography	1-3		(A)	202	Intermediate German	4	202	Intermediate German II	3	
(A)	580	Graduate Seminar	4	580	Graduate Seminar	3		(B)	217	Int Convers German I	2	217	Int Convers German I	2	
(A)	581	Seminar Geopolitics	4	581	Seminar Geopolitics	3		(B)	218	Int Convers German	2	218	Int Convers German II	2	
(A)	583	Sem Regional Geog	4	583	Seminar Regional Geog	3		(B)	219	Int Convers German	2				
(A)	584	Sem in Physical Geog	4	584	Seminar Physical Geog	3		(A)	231	Sci Tech Reading	4	231	Sci Tech Reading	3	
(A)	585	Sem in Economic Geog	4	585	Seminar in Economic Geog	3		(A)	260	Mod Germ Lit in Trans	4	260	Mod Germ Lit in Trans	3	
(A)	586	Sem in Cultural Geog	4	586	Seminar in Cultural Geog	3									
(A)	587	Sem Climatology	4	587	Seminar Climatology	3		(A)	300	Inter Study Abroad	1	300	Inter Study Abroad	1	
(A)	588	Sem Urban Geography	4	588	Sem Urban Geography	3		(B)	311	Germ Lit of 20th Cent	4	311	Intr to Lit: 20th Cent	4	
(A)	589	Internship	2-10	589	Internship	1-6		(B)	312	Germ Lit of 19th Cent	4	312	Intr to Lit: 18 & 19 Cent	3	
(A)	590	Tech Geo: Coll Level	4	590	Tech Geo Coll Level	3		(B)	313	Col & Age of Geoch	4				
(A)	597	Phil-Res Design Geog	5	597	Phil-Res Design Geog	3		(A)	315	Germ Cult & Civ	4	315	Germ Cult & Civ	3	
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9		(A)	316	Contemp Germ Life	4	316	Contemp Germ Life	3	
								(A)	317	Comp and Convers	4	317	Comp and Convers	3	
								(A)	318	Comp and Convers I	4	318	Comp and Convers I	3	
								(A)	319	Germ Phonetics & Pron	3	319	Germ Phonetics & Pron	1	
								(E)	325	German Folklore	3		(deleted)		
								(A)	331	Wkshp in Translation	4	331	Wkshp in Translation	3	
								(A)	360	Lit in Translation	4	360	Lit in Translation	1-3	
								(A)	380	Topics in Thought & Cult	1-4	380	Topics in Thought & Cult	1-3	
								(A)	407	Classical Age	4	407	Classical Age	3	
								(A)	409	Romanticism	4	409	Romanticism	3	
								(E)	410	German Realism	4		(deleted)		
								(A)	411	20th Cent Drama	4	411	Mod Germ Drama	3	
								(A)	412	Contemp Germ Prose	4	412	Mod Germ Prose	3	
								(A)	415	German Film	4	415	German Film	3	
								(A)	417	Adv Comp and Convers	4	417	Adv Comp and Convers	3	
								(A)	418	Soyl Synt Structure	3	418	Soyl Synt Structure	3	
								(A)	419	Germ Drama Wkshp	3	419	Germ Drama Wkshp	3	
								(A)	431	Adv G-E Trans	4	431	Adv G-E Trans	1-2	
								(A)	432	Adv E-G Trans	1-4	432	Adv E-G Trans	1-2	
								(E)	461	Med Ger Lit & Cult	4		(deleted)		
								(E)	462	Med Practicum	1		(deleted)		
								(E)	463	Lit Ren ce Baroque	4		(deleted)		
								(E)	464	Prac Ren to Baroque	1		(deleted)		
								(A)	480	Selected Topics	1-5	480	Selected Topics	1-3	
								(A)	482	Germ Linguistics	4	482	Germ Linguistics	3	
								(A)	491	Studies in German	1-5	491	Studies in German	1-3	
								(A)	500	Germ for Grad Students	5	500	Germ for Grad Students	4	
								(A)	501	Intr Grad Study	4	501	Intr Grad Study	3	
								(A)	502	Intr to Stylistics	2	502	Intr to Stylistics	1	
								(A)	503	Translation (G-E)	1-4	503	Translation (G-E)	1-2	
								(A)	504	Translation (E-G)	1-4	504	Translation (E-G)	1-2	
								(A)	505	Germ Phonology	2	505	Germ Phonology	1	
								(A)	507	Composition (Level I)	3	507	Composition (Level I)	2	
								(A)	508	Composition (Level II)	3	508	Composition (Level II)	2	
								(E)	511	Dis Current Affairs	2		(deleted)		
								(A)	515	Germ Cult & Civ	4	515	Germ Cult & Civ	3	
								(A)	516	Contemp Germ Civ	4	516	Contemp Germ Civ	3	
								(E)	518	Hist Germ Lang	4		(deleted)		
								(A)	519	Middle High Germ	4	519	Middle High Germ	2	
								(A)	521	Germ Med Lit	4	521	Germ Med Lit	3	
								(A)	522	Germ Lit 1300-1700	4	522	Germ Lit 1300-1700	3	
								(A)	523	18th Cent Lit	4	523	18th Cent Lit	3	
								(A)	524	Germ Classicism	4	524	Germ Classicism	3	
								(A)	525	Germ Romanticism	4	525	Germ Romanticism	3	
								(A)	526	19th Cent Lit	4	526	19th Cent Lit	3	
								(A)	531	Naturalism to Exp	4	531	Naturalism to Exp	3	
								(A)	532	Mod Prose to 1945	4	532	Mod Prose to 1945	3	
								(A)	533	Drama since 1945	4	533	Drama since 1945	3	
								(A)							

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	

Russian (RUSN)

(A)	100	Intr Lang St: Russian	2	100	Intr Lang St: Russian	1	
(B)	101	Elementary Russian	4	101	Elem Lang and Culture I	4	
(B)	102	Elementary Russian	4	102	Elem Lang and Culture II	4	
(A)	201	Intermediate Russian	4	201	Intermediate Russian I	3	
(A)	202	Intermediate Russian	4	202	Intermediate Russian II	3	
(A)	303	Intr Scien Russian	3	303	Intr Scien Russian	2	
(B)	311	Russ Lit to Pushkin	3	311	Russ Lit to Dostoevsky	3	
(B)	312	Russ Lit 19th Cent	4	312	Russ Lit to Present	3	
(B)	313	Russ Lit 20th Cent	4	313	Russian Culture	3	
(D)	431	Russian Culture	3	431	Russian Culture	3	
(D)	435	Readings Russ Culture	3	435	Readings Russ Culture	2	
(A)	317	Comp and Convers	3	317	Comp and Convers I	3	
(A)	318	Comp and Convers	3	318	Comp and Convers II	3	
(A)	319	Journalistic Russ	3	319	Journalistic Russ	2	
(A)	331	Usage in Translation	1-4	331	Usage in Translation	1-3	
(A)	401	Russian Poetry	4	401	Russian Poetry	3	
(A)	402	Russian Novel	4	402	Russian Novel	3	
(A)	403	Russian Drama	4	403	Russian Drama	3	
(A)	415	Russian Film	4	415	Russian Film	3	
(A)	417	Adv Comp and Convers	3	417	Adv Comp and Convers (changed to 315)	3	
(D)	431	Russian Culture	4	432	Russian Folklore (deleted)	3	
(E)	433	Struc Russ Lang	4	480	Selected Topics	2	
(A)	480	Selected Readings	3	480	Selected Topics	2	
(A)	491	Readings in Lit	1-4	491	Readings in Russian	1-2	

Japanese (JAPN)

(B)	101	Elementary Japanese	4	101	Elem Lang and Culture I	4	
(B)	102	Elementary Japanese	4	102	Elem Lang and Culture II	4	
(A)	201	Intermediate Japanese	4	201	Intermediate Japanese I	3	
(A)	202	Intermediate Japanese	4	202	Intermediate Japanese II	3	

Graduate Business Administration (GBA)

(A)	520	Accounting Methods	6	520	Accounting Methods	3	
(A)	530	Production Function	4	530	Production Function	3	
(A)	535	Organ Theory & Behavior	4	535	Organ Theory & Behavior	3	
(A)	540	Marketing Function	4	540	Marketing Function	3	
(A)	550	Finance Function	4	550	Finance Function (deleted)	3	
(E)	562	Quan Concepts in Bus Det	4	580	Intr to the Computer	3	
(A)	580	Intr to the Computer	4	580	Intr to the Computer	3	
(A)	590	Legal Environ of Business	4	590	Legal Environ of Business	3	
(A)	628	Managerial Accounting	4	628	Managerial Accounting (deleted)	3	
(E)	629	Financial Accounting	4	630	Product Theory & Practice	3	
(A)	630	Product Theory & Pract	4	632	Human Behav in Admin	3	
(A)	632	Human Behav in Admin	4	632	Human Behav in Administration	3	
(A)	635	Mgmt Theory & Thought	4	635	Mgmt Theory & Thought	3	
(A)	636	Adv Organ Theory & Behav	4	636	Adv Organ Theory & Behav	3	
(A)	637	Matrix & Logic Management	4	637	Matrix & Logic Management	3	
(A)	639	Topics in Prod & Opr Mgmt	4	639	Topics in Prod & Opr Mgmt	3	
(A)	640	Marketing Management	4	640	Marketing Management	3	
(A)	641	Dist Struct & Strategy	4	641	Dist Struct & Strategy	3	
(A)	642	Appl Marketing Research	4	642	Applied Marketing Research	3	
(A)	643	Behav Theor in Marketing	4	643	Behav Theor in Marketing	3	
(A)	648	Intr to Intl Bus Admin	4	648	Intr to Intl Bus Admin	3	
(A)	649	International Business	4	649	International Business	3	
(A)	650	Financial Management	4	650	Financial Management	3	
(A)	652	Mgmt of Financ Instit	4	652	Mgmt of Financial Institution	3	
(A)	653	Fundm'l of Invest Analysis	4	653	Fundm'l of Investment Analysis	3	
(A)	654	Financial Risk Analysis	4	654	Financial Risk Analysis	3	
(A)	656	Capital Budgeting	4	656	Capital Budgeting	3	
(A)	657	Money & Capital Markets	4	657	Money & Capital Markets	3	
(A)	663	Opr Res in Business	4	663	Opr Research in Business	3	
(A)	664	Opr Res in Business II	4	664	Opr Research in Business II	3	
(A)	665	Opr Res in Business III	4	665	Opr Research in Business III	3	
(A)	666	Comp Sim, Stoch Sys	4	666	Comp Sim, Stoch Systems	3	
(A)	667	Network Analysis Bus Decis	4	667	Network Analysis-Bus Decisions	3	
(A)	668	Appl non-linear Dyn Prgm	4	668	Appl non-Linear Dynamic Prgm	3	
(A)	681	Business Info Systems	4	681	Business Information Systems	3	
(A)	682	Business Systems Analysis	4	682	Business Systems Analysis	3	
(A)	683	Cases in Bus Info Sys	4	683	Cases in Bus Info Systems	3	
(A)	690	Special Prbl in Bus	1-4	690	Special Problems in Business (deleted)	1-3	
(E)	691	Public Relat for Bus	4	692	Teaching College Bus Admin	3	
(A)	692	Teach Col Bus Admin	4	692	Teaching College Bus Admin	3	
(A)	693	Social Responsibility	4	693	Social Responsibility (deleted)	3	
(E)	694	Law & Business Ethics	4	695	Policy & Strat Determ Impl	3	
(A)	695	Policy & Strat Det Impl	4	697	Research Techniques	1	
(A)	697	Research Techniques	2	698	Business Research Projects	3	
(A)	698	Business Research Proj	4	699	Thesis Research	1-6	
(A)	699	Thesis Research	1-6	699	Thesis Research	1-6	

Organization Development (ORGD)

(A)	670	Intr to Organ Develop	3	670	Intr to Organ Develop	3	
(A)	671	Self Aware & Organ Dev	4	671	Self Awareness & Pers Impact	3	
(C)	672	Organ Behav Contr Hist	4	672	Organiz Behav & Application	3	
(C)	676	Applied Org Behavior	4	673	Organ Dev Theo & Tech of Interv	3	
(C)	673	Organ Dev Theo & Tech	4	674	Change Strat in Organizations (absorbed into 672)	3	
(C)	679	Organ Intervention	4	675	Tech of Organ Analysis & Resrch	3	
(A)	674	Change Strat in Organ	4	677	Organiz Sys & Anal Behav	3	
(C)	676	Applied Org Behavior	4	678	Organiz Diag & Inters Design (absorbed into 673)	3	
(A)	690	Organization Research	3	690	Organization Research (absorbed into 673)	3	
(A)	677	Organiz Sys & Anal Behav	4	699	Thesis	6	
(A)	678	Organiz Diagnosis	4				
(C)	679	Organ Intervention	4				
(A)	690	Organization Research	3				
(A)	699	Thesis	8				

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	

Criminal Justice (CRJU)

(A)	210	Intr to CRJU	4	210	Intr to CRJU	3	
(A)	220	LE Org & Admin	4	220	LE Org & Admin	3	
(A)	230	Criminal Investigation	4	230	Criminal Investigation	3	
(A)	240	Police-Comm Relations	6	240	Police-Comm Relations (deleted)	3	
(E)	250	Tech Aspects of LE	5				
(A)	310	Criminal Law	4	310	Criminal Law	3	
(A)	490	Independent Study in CRJU 1-5	470	470	Independent Study in CRJU	1-3	
(A)	480	Special Problems in CRJU	4	480	Special Problems in CRJU	3	
(A)	490	Independent Study in CRJU 1-5	470	470	Independent Study in CRJU	1-3	
(B)	491	Practicum	2-16	491	Practicum	1-2	
(B)	493	Practicum Seminar	1	493	Practicum Seminar	1-12	

Environmental Health (ENHV)

(A)	401	Waste Mgmt-Disposal	4	401	Waste Mgmt-Disposal	2	
(A)	402	Air-Noise Pollution	4	402	Air-Noise Pollution	3	
(A)	403	Envl Cons Occup Health	4	403	Envl Cons Occup Health	3	
(A)	404	Org Pub-Envl Health Sv	4	404	Org Pub-Envl Health Sv	3	
(A)	470	Prob Environmtl Health	1-5	470	Prob Environmtl Health	1-2	
(A)	491	Envl Health Practicum	2-16	491	Envl Health Practicum	1-12	

Gerontology (GERO)

(A)	470	Special Topics	1-4	400	Special Topics	1-3	
(A)	410	Admin. and Aging	4	410	Admin. and Aging	2	
(A)	420	Proposal Writing	2	420	Proposal Writing	2	
(A)	470	Special Topics	1-4	400	Special Topics	1-3	
(A)	491	Practicum	6-14	491	Practicum	2-10	
(A)	493	Practicum Seminar	1	493	Practicum Seminar	1	

Health and Community Services (HCS)

(A)	100	Sem. Health & Com. Serv. 1-8	100	Sem. Health & Com. Serv.	1-5		
(A)	440	Sem. Health & Com. Serv. 1-8	440	Sem. Health & Com. Serv.	1-5		
(A)	491	Field Exp. Para. Med. Ent.	5	491	Field Exp. Para. Med. Ent.	3	

Medical Record Administration (MRA)

(A)	101	Intr to Health Profesn	2	101	Intr to Health Profesn	1	
(A)	300	Topics Med Rcds Adm	1-5	300	Topics Med Rcds Adm	1-3	
(A)	301	Medical Terminology	3	301	Medical Terminology	2	
(A)	401	Medical Record Sc VI	4	401	Medical Record Sc VI	3	
(A)	402	Medical Recrd Sc VI	4	402	Medical Recrd Sc VI	3	
(A)	403	Medical Recrd Sc VII	3	403	Medical Recrd Sc VII	2	
(A)	404	Medical Recrd Sc VIII	4	404	Medical Recrd Sc VIII	3	
(A)	410	Trends Med Recrd Adm	2	410	Trends Med Recrd Adm	1	
(A)	409	Directed Practicum	5	409	Directed Practicum	3	

Medical Technology (MEDT)

(A)	301	Orientation to Med Tech	2	301	Orientation to Med Tech	1	
(B)	401	Intr to Research	1-4				
(C)	458	Clinical Serology	2	411	(absorbed into 470)	1	
(C)	456	Immunohematology I	4	412	Diagnostic Immunology	1	
(C)	459	Clinical Hematology I	4	413	Diagnostic Immunology Lab	1	
(C)	461	Coagulation	2	414	Immunohematology I Lab	1	
(C)	462	Clinical Chemistry I	6	421	Hematology I	3	
(C)	464	Analysis of Body Fluids	2	422	Hematology I Lab	1	
(B)	452	Clinical Bacteriology I	4	423	Hematology II	1	
(B)	454	Clinical Mycology	2	441	Clinical Chemistry I	4	
(B)	455	Clinical Parasitology	2	442	Clinical Chemistry I Lab	1	
(A)	453	Clinical Bacteriology II	2	451	Analysis of Body Fluids	1	
(B)	454	Clinical Mycology	2	452	Clinical Microbiology I	4	
(B)	455	Clinical Parasitology	2	453	Clinical Microbiology II (absorbed into 452)	2	
(A)	453	Clinical Bacteriology II	2	457	Immunohematology II (absorbed into 413,414)	1	
(B)	454	Clinical Mycology	2	458	Immunohematology II (absorbed into 411,412)	1	
(B)	455	Clinical Parasitology	2	460	Hematology II (absorbed into 421,422)	2	
(C)	456	Immunohematology I	4	461	Coagulation	2	
(A)	457	Immunohematology II	2	462	Clinical Chemistry I	6	
(C)	458	Clinical Serology	2	463	Clinical Chemistry II	6	
(C)	459	Clinical Hematology I	4	464	Analysis of Body Fluids	2	
(C)	461	Coagulation	2	465	Lab Management I	2	
(C)	462	Clinical Chemistry I	6	466	Lab Management II	2	
(A)	463	Clinical Chemistry II	6	470	Intr to Research	1-4	
(C)	464	Analysis of Body Fluids	2	470	Special Topics	1-4	
(A)	465	Lab Management I	2				
(A)	466	Lab Management II	2				
(B)	401	Intr to Research	1-4				
(A)	470	Special Topics	1-4				

Nursing (NURS)

(A)	100	Orientation to Nursing	1	100	Orientation to Nursing	1	
(A)							

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	
(A)	400	Adult Psych Health Devia	6-9	400	Adult Psych Health Devia	3-0	
(A)	401	Community Health Nurs	6-9	401	Community Health Nurs	3-0	
(A)	402	Manage for Quality Care	6-9	402	Manage for Quality Care	3-0	
(A)	405	Oncology Nurs (elective)	4	405	Oncology Nurs (elective)	3	
(A)	411	Basic Concept Nurs Res II	2	411	Basic Concept Nurs Research I	1	
(A)	412	Basic Concept Nurs Res II	2	412	Basic Concept Nurs Research II	2	
(A)	470	Independ Studies Nurs	1-4	470	Independ Studies Nurs	1-3	

Health, Physical Education, and Recreation, School of

Health Education (HED)

(C)	109	Personal Health	3	109	Personal & Community Health	3	
(C)	110	Community Health	2	(absorbed into 109, 205, 300)			
(C)	113	CPR	1	(absorbed into 313)			
(C)	209	Adv Conc of Pers Health	5	209	Adv Conc of Pers & Comm Health	3	
(E)	(110)	Community Health	2				
(A)	230	Humanizing Health Educ	2	230	Humanizing Health Education	1	
(A)	301	Women's Health	3	301	Women's Health	2	
(C)	313	Adv First Aid & Safety Ed	4	313	Adv First Aid & Safety	3	
(C)	(113)	CPR	1				
(A)	314	Inst Adv Fst Aid & Em Cr	2	314	Inst Adv First Aid & Em Care	1	
(A)	338	Conc of Human Sexuality	4	338	Conc of Human Sexuality	3	
(A)	340	Drug Use/Abuse	4	340	Drug Use/Abuse	3	
(C)	346	Health Ed for Elm Sch Tch	3	346	Health Ed for Elm Sch Tch	3	
(C)	(110)	Community Health	2				
(A)	348	Inst Tech in Hlth Ed K-12	4	348	Inst Tech in Hlth Ed K-12	3	
(C)	349	Teach Health Education	1	(absorbed in 393)			
(A)	362	Driver Ed-Basic Inst	5	362	Driver Ed-Basic Inst	3	
(C)	393	Prac in Health Education	1	393	Prac in Health Education	3	
(C)	(349)	Teach Health Education	1				
(A)	395	Whshop on Current Topics	1-5	395	Workshop on Current Topics	1-3	
(A)	G409	Sch Hlth Svc & Envir	4	G409	Sch Health Services & Envir	3	
(A)	G462	Driver Ed-Advanced Inst	4	G462	Driver Ed-Advanced Inst	3	
(A)	470	Ind Study in Health Ed	1-5	470	Ind Study in Health Education	1-3	
(A)	G480	Cont Issues in Health	3	G480	Cont Issues in Health	2	
(A)	481	Sem in Health Education	3	481	Sem in Health Education	2	

Graduate Courses in HPER (HPER)

(A)	509	Adm/Mgmt Lels/Rec. Svcs.	4	509	Admin. Mgmt Leisure/Rec. Svcs.	3	
(A)	510	Phil/Prin. of HPE	4	510	Phil/Prin. of HPE	3	
(A)	511	Tests/Measures in HPE	4	511	Meas./Eval. in HPE	3	
(A)	512	Appl. of Prin. of Learn. to Teach/Coach Phys. Act.	4	512	Appl. of Prin. of Learn. to Teach/Coach Phys. Act.	3	
(A)	513	Survey of Adapted PE	4	513	Program. in PE for Spec. Pop. (deleted)	3	
(C)	514	Concump Issues in Adapted Phys. Ed./Therapeu. Rec	4				
(A)	515	Survey of Therapeu. Rec	3	515	Therapeutic Rec. Systems (deleted)	2	
(E)	516	How. Factors of Handi.	3	516	Biomechanics	2	
(A)	517	Hech. Analysis of Movc.	4	517	Biomechanics	2	
(A)	530	Admin-Interachol. Achl.	4	530	Admin-Interachol. Athletics	3	
(A)	531	Achl/Rec. Facility Planning & Management	4	531	Athletic/Rec. Facility Planning & Management	3	
(A)	535	Sport and Society	4	535	Sport and Society	3	
(A)	539	Concump. Elem. Phys Ed	4	539	Concump. Elem. Phys. Ed	3	
(A)	540	Curr. Dev. in Elem. School Phys. Ed.	4	540	Curr. Dev. in Elementary School Phys. Ed.	3	
(A)	541	Prog. Planning for Sec. School Phys. Ed.	4	541	Prog. Planning for Secondary School Physical Education	2	
(A)	570	Readings in HPER	1-6	570	Readings in HPER	1-2	
(A)	580	Grad. Seminar in HPER	1-5	580	Seminar in HPER	1-4	
(A)	581	Sem. in Health Education	4	581	Seminar in Health Education	3	
(A)	582	Issues in Phys. Ed.	4	582	Issues in Physical Education	3	
(A)	589	Internship, Field Placement or Practicum in HPER	1-6	589	Internship, Field Placement or Practicum in HPER	1-3	
(A)	590	Teaching HPER at College Level	1-6	590	Teaching HPER at College Level	1-2	
(A)	595	Whsp-Current Topics/HPER	1-6	595	Whsp-Current Topics in HPER	1-3	
(A)	597	Resch Methods in HPER	5	597	Research Methods in HPER	4	
(A)	598	Directed Resch. in HPER	1-6	598	Directed Research in HPER	1-4	
(A)	599	Theses Research	1-9	599	Theses Research	1-9	

Physical Education, General (PEG)

PEG 100	General Physical Education	1	PEG 100	General Physical Education	1
PEG 200	General Physical Education	1	PEG 200	General Physical Education	1

Physical Education, Professional (PEP)

(D)	(264)	Spt Sks - Gymnastics	3	110	Gymnastics - Men	2
(D)	102	Basketball	1	(283)	Basketball	1
(D)	103	Bowling	1	(204)	Bowling	1
(D)	104	Badminton	1	(202)	Badminton	1
(E)	105	Sports Sks-Coach. Tech.	3	(deleted)		
(D)	107	Sports Sks-Coach. Tech.	3	(deleted)		
(D)	108	Diving	1	(205)	Diving	1
(D)	109	Fencing	1	(207)	Fencing	1
(D)	110	Field Hockey	1	(208)	Field Hockey	1
(C)	112	Golf	1	(209)	Golf	1
(C)	113	Gymnastics	1	112	Gymnastics - Woman	2
(C)	(213)	Gymnastics	2			
(D)	114	Lacrosse	1	(213)	Lacrosse	1
(D)	116	Softball	1	(217)	Softball	1
(D)	117	Swimming	1	(218)	Swimming	1
(D)	118	Synchronized Swimming	1	(219)	Synchronized Swimming	1
(C)	(123)	Soccer/Speedball	1	116	Soccer	2
(C)	(223)	Soccer/Speedball	1			
(C)	119	Tennis	1	121	Tennis	2
(C)	(219)	Tennis	2			
(C)	120	Track and Field	2	123	Track and Field	2
(C)	(220)	Track and Field	2			
(C)	121	Volleyball	2	124	Volleyball	2
(C)	(221)	Volleyball	2			
(D)	122	Archery	1	(201)	Archery	1
(C)	123	Soccer/Speedball	1	(absorbed into 116)		
(C)	124	Trampoline/Tumbling	1	(227)	Adv. Educational Dance	1
(A)	137	Educational Dance I	2	137	Educational Dance	1

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	
(A)	138	Educational Gymn. I	2	138	Educational Gymnastics	1	
(D)	161	Rebound Tumbling	1	(214)	Rebound Tumbling	1	
(D)	162	Gymnastics	1	(228)	Adv. Educational Gymnastics	1	
(E)	163	Tumbling/Floor Exercise	1	(deleted)			
(C)	164	Intro to Movement	3	(deleted)			
(C)	(302)	Struct. Kinestology	4	(230)	Struct. Kinestology	4	
(C)	(303)	Biomechanics	4	(303)	Biomechanics	3	
(D)	170	Wrestling Fund. Tech.	2	(226)	Wrestling	1	
(E)	204	Badminton	2	(deleted)			
(E)	207	Basketball	2	(deleted)			
(E)	208	Diving	2	(deleted)			
(E)	209	Fencing	2	(deleted)			
(E)	210	Field Hockey	2	(deleted)			
(E)	212	Golf	2	(deleted)			
(E)	213	Gymnastics	2	(deleted)			
(E)	214	Lacrosse	2	(deleted)			
(E)	216	Softball	2	(deleted)			
(E)	217	Swimming	2	(deleted)			
(E)	218	Synchronized Swimming	2	(deleted)			
(C)	219	Tennis	2	(absorbed into 121)			
(C)	220	Track and Field	2	(absorbed into 123)			
(C)	221	Volleyball	2	(absorbed into 124)			
(A)	222	Synchronized Swimming	2	(222)	Adv. Synch. Swimming	1	
(C)	223	Soccer/Speedball	2	(absorbed into 116)			
(A)	225	Adv. Lifesaving	2	(225)	Adv. Lifesaving	1	
(A)	223	Lab Exper. w/Children	2	(233)	Lab Exper. w/Children	2	
(A)	235	Prof. Rdg. Wrtg. Phys. Ed.	2	(235)	Prof. Rdg. Wrtg. Phys. Ed.	1	
(A)	237	Tch. Educational Dance	3	(237)	Tch. Educational Dance	2	
(A)	238	Tch. Educational Gymn.	3	(238)	Tch. Educ. Gymnastics	2	
(A)	243	Games Teaching	4	(241)	Games Teaching	2	
(A)	247	Practical Experience	4	(247)	Practical Experience	3	
(A)	254	Survey PE Elem. School	3	(deleted)			
(A)	256	Concepts of Phys. Ed.	3	(256)	Concepts of Phys. Ed.	2	
(E)	261	Spt Sks - Basketball	3	(deleted)			
(E)	262	Spt Sks - Baseball	3	(deleted)			
(E)	263	Spt Sks - Soccer	3	(deleted)			
(E)	264	Spt Sks - Gymnastics	3	(110)	Gymnastics - Men	2	
(E)	265	Spt Sks - Swimming	3	(deleted)			
(E)	266	Spt Sks - Football	3	(deleted)			
(E)	267	Spt Sks - Ice Hockey	3	(deleted)			
(E)	268	Spt Sks - Lacrosse	3	(deleted)			
(E)	269	Spt Sks - Track & Field	3	(deleted)			
(E)	270	Spt Sks - Wrestling	3	(deleted)			
(E)	271	Spt Sks - Tennis	3	(deleted)			
(D)	(122)	Archery	1	201	Archery	1	
(D)	(104)	Badminton	1	202	Badminton	1	
(D)	(102)	Basketball	1	203	Basketball	1	
(D)	(103)	Bowling	1	204	Bowling	1	
(D)	(108)	Diving	1	205	Diving	1	
(D)	(209)	Fencing	1	207	Fencing	1	
(D)	(110)	Field Hockey	1	208	Field Hockey	1	
(D)	(112)	Golf	1	209	Golf	1	
(D)	(114)	Lacrosse	1	213	Lacrosse	1	
(D)	(161)	Rebound Tumbling	1	214	Rebound Tumbling	1	
(D)	(116)	Softball	1	217	Softball	1	
(D)	(117)	Swimming	1	218	Swimming	1	
(D)	(118)	Synchronized Swimming	1	219	Synchronized Swimming	1	
(A)	(212)	Synchronized Swimming	2	222	Adv. Synchronized Swimming	1	
(A)	(225)	Adv. Lifesaving	2	225	Adv. Lifesaving	1	
(D)	(170)	Wrestling Fund. Tech.	1	226	Wrestling	1	
(D)	(124)	Trampoline/Tumbling	1	227	Adv. Educ. Dance	1	
(D)	(162)	Gymnastics	1	228	Adv. Educ. Gymnastics	1	
(C)	(164)	Intro to Movement	3	(230)	Struct. Kinestology	4	
(C)	(302)	Struct. Kinestology	4	(303)	Biomechanics	3	
(C)	(303)	Biomechanics	4	(303)	Biomechanics	4	
(A)	(233)	Lab Exper. w/Children	2	233	Lab Exper. w/Children	2	
(A)	(235)	Prof. Rdg. Wrtg. Phys. Ed.	2	235	Prof. Rdg. Wrtg. Phys. Ed.	1	
(A)	(237)	Tch. Educ. Dance	3	237	Tch. Educational Dance	2	
(A)	(238)	Tch. Educ. Gymnastics	3	238	Tch. Educ. Gymnastics	2	
(A)	(241)	Games Teaching	3	241	Games Teaching	2	
(A)	(247)	Practical Experience	4	247	Practical Experience	3	
(A)	(256)	Concepts of Phys. Ed.	3	256	Concepts of Phys. Ed.	2	
(C)	302	Struct. Kinestology	4	303	Biomechanics	3	
(C)	303	Biomechanics	4	(230)	Struct. Kinestology	4	
(C)	(164)	Intro to Movement	3	(deleted)			
(A)	322	Red Cross Water Safety	3	322	Red Cross Water Safety	2	
(A)	332	Teach-Learn Process	4	332	Teach-Learn Process	3	
(A)	340	Motor Development	4	340	Motor Development	3	
(A)	342	Phys Ed in Elem Sch	4	342	Phys Ed in Elem Sch	3	
(A)	350	Motor Learning	4	350	Motor Learning	3	
(E)	352	Inscr. Tech Sac Sc PE	4	(deleted)			

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE				PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE				
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	
(A)	224	Dance Perf Workshop	2	224	Dance Perf Workshop	2	(A)	320	Soc Hist Amer Medicine	4	320	Soc Hist Amer Medicine	4	320	Soc Hist Amer Medicine	4
(C)	226	Prin of Dance	2	226	Perspectives in Dance (absorbed Part in 424 & 426) (absorbed into 326)	2	(A)	323	Hist Amer Journalism	4	323	Hist Amer Journalism	4	323	Business Hist of US	3
(C)	227	Improvisation	2	227	Rec Act for Old Americans	2	(A)	326	Women in Amer Hist	4	326	Women in Amer Hist	4	326	Practicum in History	2
(A)	260	Rec Act for Old Am	2	260	Rec Act for Old Americans	2	(A)	330	Practicum in History	2	330	Amer Environmtl Hist	4	330	Amer Environmtl Hist	4
(A)	273	Intr to Out Rec	4	273	Outdoor Recreation	4	(A)	338	World of the Bible	4	340	Eng Origins Amer Law	4	340	Eng Origins Amer Law	4
(A)	294	Outdoor Pursuits	3	294	Outdoor Leadership	3	(A)	357	Eng Origins Amer Law	4	357	Eng Origins Amer Law	4	357	Eng Origins Amer Law	4
(E)	303	Adv Ballroom Dance	2	(deleted)	(deleted)		(A)	360	Mod Personalities 20 C	4	360	Mod Personalities 20 C	4	360	French Revol & Napol	3
(C)	315	Adv Modern Dance	2	(part into 215)	(part into 215)		(A)	363	French Revol & Napol	4	363	Hitler's Germany	4	367	Hitler's Germany	4
(C)	325	Mod Dance Theory/Tech	2	325	Modern Dance I	1	(A)	367	Hitler's Germany	4	371	20th Century Europe	4	371	20th Century Europe	4
(C)	320	Classical Ballet III	2	320	Classical Ballet III (Part into 220)	2	(A)	381	United States and Asia	4	381	United States and Asia	4	381	United States and Asia	4
(A)	323	Camp Administration	3	323	Camp Administration	3	(A)	382	Chinese Culture-Inst	4	382	Chinese Culture-Inst	4	382	Chinese Culture-Inst	4
(C)	325	Mod Dance Theory/Tech	2	325	Dance Theory and Methods (Part absorbed into 315)	2	(A)	386	Japan Cult Mul-Media	4	386	Japan Cult Mul-Media	4	391	Spec Studies in Hist	1-3
(A)	326	Dance Composition	2	326	Dance Composition	2	(A)	391	Spec Studies in Hist	2-4	395	Whsp Current Topics	1-3	400	Topics in History	2-3
(C)	327	Improvisation	2	327	Choreography Workshop	1	(A)	401	Caesar and Christ	4	401	Caesar and Christ	4	411	Modern Mexico	3
(A)	327	Choreography Workshop	1	327	Choreography Workshop	1	(A)	411	Modern Mexico	4	413	Caribbean & Sp Main	3	413	Canada	3
(C)	373	Concepts in Out Ed	4	380	Org and Adm of Recreation	3	(A)	413	Caribbean & Sp Main	4	414	Canada	4	414	Canada	4
(C)	374	Tech in Outdoor Ed	4	380	Org and Adm of Recreation	3	(A)	415	Spain and Portugal	4	415	Spain and Portugal	4	419	Westward Hove Amer	3
(A)	384	Org and Adm of Rec	4	384	Org and Adm of Recreation	3	(A)	419	Westward Hove Amer	4	420	Topics American West	3	421	Amer Colonial Hist	3
(A)	385	Rec Program Develop	4	385	Rec Program Development	3	(A)	420	Topics American West	4	422	Amer Revolution Era	4	422	Amer Revolution Era	4
(A)	387	Practicum in Rec	1-8	387	Practicum in Rec	1-5	(A)	421	Amer Colonial Hist	4	425	Conflict & Division	3	426	Civil War & Reconstr	3
(A)	395	Whsp on Curr Topics	1-5	395	Whsp on Current Topics	1-3	(A)	422	Amer Revolution Era	4	426	Civil War & Reconstr	4	427	Amer South 1865-Pres	3
(C)	424	Survey of Dance Hist	3	424	Hls/Phil of Dance	3	(A)	427	Amer South 1865-Pres	4	428	Emergence Mod Amer	3	429	Progressive Era	3
(C)	426	Dance Production	3	426	Dance Production	3	(A)	428	Emergence Mod Amer	4	429	Progressive Era	4	430	Recent US History	3
(C)	426	Dance Production	3	426	Dance Production	3	(A)	429	Progressive Era	4	430	Recent US History	4	433	Amer Constit History	3
(A)	420	Independent Study-Rec	1-3	470	Independent Study	1-3	(B)	432	Amer Constit History	4	433	Amer Constit History	4	436	Amer Soc & Intellect Hist	3
(A)	482	Eval of Rec Services	4	482	Eval of Rec Services	3	(B)	433	Amer Constit History	4	436	Amer Soc & Intellect Hist	4	437	US as World Power 20 C	3
(A)	483	Rec Areas and Facilities	4	483	Rec. Areas and Facilities	3	(B)	436	Amer Soc & Intellect Hist	4	437	US as World Power 20 C	4	438	US Fn Pol: WWII-Pres	3
(A)	484	Cont Issues	4	484	Cont Issues	3	(B)	437	US as World Power 20 C	4	438	US Fn Pol: WWII-Pres	4	441	Classical Hellenism	3
(A)	487	Practicum	1-8	487	Practicum	1-5	(A)	438	US Fn Pol: WWII-Pres	4	441	Classical Hellenism	4	442	The Roman Revolution	3
(A)	488	Fieldwork in Rec	15	488	Fieldwork	10	(A)	441	Classical Hellenism	4	442	The Roman Revolution	4	444	The Making of Europe	3
(A)	488	Fieldwork in Rec	15	488	Fieldwork	10	(B)	442	The Roman Revolution	4	444	The Making of Europe	4	444	The Making of Europe	4

Sports Studies and Management (SSM)

(E)	304	Adv Basketball	2	(deleted)	(deleted)		(A)	442	The Roman Revolution	4	444	The Making of Europe	4	444	The Making of Europe	4
(E)	305	Adv Gymnastics	2	(deleted)	(deleted)		(B)	443	Med Civil 1764-1800	4	444	The Making of Europe	4	444	The Making of Europe	4
(C)	306	Officiate Indiv Spts	2	(absorbed into 306)	(absorbed into 306)		(E)	445	Renaissance Europe	4	(deleted)	(deleted)		448	Mod Europe Soc-Thot	3
(E)	308	Adv Lacrosse	2	(deleted)	(deleted)		(B)	449	Rec Europe Soc-Thot	4	(deleted)	(deleted)		454	Eur Fn Rel 1914-Pres	3
(E)	309	Adv Fencing	2	(deleted)	(deleted)		(A)	454	Eur Fn Rel 1914-60	4	454	Eur Fn Rel 1914-Pres	4	458	England 558C-1689	3
(A)	310	Care Prev Spts Injur	3	310	Care Prev Spts Injur	2	(B)	458	England 558C-1689	4	459	Gr Britain 1689-Pres	3	459	Gr Britain 1689-Pres	3
(E)	311	Adv Field Hockey	2	(deleted)	(deleted)		(A)	459	Gr Britain 1689-Pres	4	462	British Empire	4	464	France since 1815	3
(E)	312	Adv Golf	2	(deleted)	(deleted)		(A)	462	British Empire	4	464	France since 1815	4	469	Russia 900-1825	3
(C)	317	Adv Swimming	2	(absorbed into 334)	(absorbed into 334)		(A)	469	Russia 900-1825	4	470	Mod Russia 1825-1945	4	471	Educ-Revolut Russia	3
(B)	318	Adv Synchroniz Swim	2	(deleted)	(deleted)		(A)	470	Mod Russia 1825-1945	4	471	Educ-Revolut Russia	4	480	Seminar in History	3
(E)	319	Adv Tennis	2	(deleted)	(deleted)		(A)	471	Educ-Revolut Russia	4	480	Seminar in History	4	481	Africa 18th Cent-Pr	3
(C)	321	Adv Volleyball	2	(absorbed into 333)	(absorbed into 333)		(A)	480	Seminar in History	4	481	Africa 18th Cent-Pr	4	483	Revol-Trad Mod China	3
(E)	324	Adv Track & Field	2	(deleted)	(deleted)		(A)	481	Africa 18th Cent-Pr	4	483	Revol-Trad Mod China	4	486	Japan-New Superstate	3
(E)	328	Prin Athlet Coaching	5	328	Prin Athlet Coaching	3	(A)	483	Revol-Trad Mod China	4	486	Japan-New Superstate	4	480	Seminar in History	3
(C)	329	Coaching Football	3	329	Coaching Football	3	(A)	486	Japan-New Superstate	4	480	Seminar in History	4	480	Seminar in History	3-5
(A)	330	Coaching Track	3	330	Coaching Track/Field	2	(A)	480	Seminar in History	3-5	480	Seminar in History	4	495	Readings in History	1-3
(A)	331	Coaching Basketball	3	331	Coaching Basketball	2	(A)	495	Readings in History	1-5	511	Latin Amer. Hist.	4	511	Latin Amer. Hist.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(E)	511	Latin Amer. Hist.	4	515	Comparative Slavery	4	521	Early American Hist.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(E)	515	Comparative Slavery	4	521	Early American Hist.	4	521	Early American Hist.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	521	Early American Hist.	4	521	Early American Hist.	4	526	19th Century Amer.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	526	19th Century Amer.	4	529	20th Century Amer.	4	529	20th Century Amer.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	529	20th Century Amer.	4	535	Amer. Soc. & Intell.	4	535	Amer. Soc. & Intell.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(E)	535	Amer. Soc. & Intell.	4	542	Christianity Classic	4	(deleted)	(deleted)	
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(E)	542	Christianity Classic	4	547	Modern European History	4	547	Modern European History	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	547	Modern European History	4	551	American Historiography	4	551	American Historiography	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	551	American Historiography	4	552	European Hist.	4	552	European Hist.	3
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(E)	552	European Hist.	4	553	Ancient Hist.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	553	Ancient Hist.	4	556	Archives Adm.	4	556	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	556	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332	Coaching Baseball	3	332	Coaching Baseball	3	(A)	557	Archives Adm.	4	557	Archives Adm.	4	557	Archives Adm.	4
(C)	332															

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE				PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.	Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.		
(A)	219	Sealing Fat Insectars	4	219	Fabric Use-Interior Dsgn	3	(A)	380	Writing Public Comm	4	380	Writing Public Comm	3		
(A)	223	Child Study	3	223	Child Study	3	(A)	402	Journ Law & Ethics	4	402	Journ Law & Ethics	3		
(A)	224	Creat Exp Yng Child	2	224	Creat Exp Yng Children	3	(A)	403	The Editorial	4	403	The Editorial	3		
(C)	250	Foundatn of Home Econ	4	250	Foundatn of Home Econ	3	(A)	404	Magazine Article	4	404	Magazine Article	3		
(C)	301	Presentation Techniq	3				(A)	407	Color Photography	4	407	Color Photography	3		
(B)	289	Superv Field Expec	1-2				(A)	412	Field Experience	1-15	412	Field Experience	3		
(A)	295	Telecourse Cur Topics	1-4	295	Telecns on Current Topics	1-3	(A)	414	Hi Sch Publications	4	414	Hi Sch Publications	3		
(C)	301	Presentation Techniq	3		(absorbed into 250)		(A)	416	Magazine Journalism	4	416	Magazine Journalism	3		
(A)	302	Faundatns Marriage	4	302	Foundatn Marriage Relatns	3	(A)	423	Mass Commun Research	4	423	Mass Commun Research	3		
(A)	303	Home Furnishing	4	303	Home Furnishing	3	(A)	430	The Documentary	4	430	The Documentary	3		
(A)	305	Intgrt Career/Family	4	305	Integrating Career-Family	3	(A)	431	Interpretive Report	4	431	Interpretive Report	3		
(A)	307	Nutrition	5	307	Nutrition	3	(A)	432	News Decisionmaking	4	432	News Decisionmaking	3		
(A)	310	Microwave Oven Appl	2	310	Microwave Oven Applicatn	2	(A)	433	Govt & the News Med	4	433	Govt & the News Med	3		
(C)	311	Home Mgmt Residence	4	311	Home Management Lab	3	(A)	435	The Press & Society	4	435	The Press & Society	3		
(C)	312	Dress Design-Drapping	3		(absorbed into 412)		(A)	440	Public Relation Tech	4	440	Public Relation Tech	3		
(A)	313	Advanced Textiles	3	313	Textile Analysis	3	(A)	461	Spec Probl in Journ	1-4	460	Spec Probl in Journ	1-3		
(A)	319	Intern Interior Dsgn	3	319	Residential Interiors	3	(A)	470	Foreign Press System	4	470	Foreign Press System	3		
(A)	320	Infant Development	3				(A)	471	Internat Media Netw	4	471	Internat Media Netw	3		
(C)	321	Child Development	3	321	Child Development	3	(A)	481	Top-PR Public Relat	2-4	481	Top-PR Public Relat	1-3		
(C)	327	The Young Child	3				(E)	491	Sem News Editorial	2		(deleted)			
(A)	322	Nursery School Pract	3	322	Child Development Pract	3	(E)	492	Sem Magazine Journ	2		(deleted)			
(E)	324	Personal Clothing	4				(E)	493	Sem Broadcas Journ	2		(deleted)			
(E)	325	Meal Serv	4				(E)	494	Sem Photojournalism	2		(deleted)			
(A)	326	Foods of Other Cultures	3	326	Foods of Other Cultures	2	(E)	495	Sem Public Relations	2		(deleted)			
(C)	327	The Young Child	4		(absorbed into 321)		(A)	461	Spec Probl in Journ	1-4	490	Spec Probl in Journ	1-3		
(A)	328	Pre-Adol/Adolescent	4	328	Pre-Adol/Fam/Community	3	(A)	6402	Journ Law & Ethics	4	6402	Journ Law & Ethics	3		
(A)	331	Quant Food Prod-Mgmt	5	331	Quancy Food Prodn Mgmt	3	(E)	6403	The Editorial	4		(deleted)			
(A)	333	Inst Kitchen Plan	3	333	Instat Kitchen Planning	3	(A)	6414	Hi Sch Publications	4	6414	Hi Sch Publications	3		
(A)	352	Open Tech Voc Job Tng	4	352	Home Leon in Secndry Sch	3	(A)	6431	Interpretive Report	4	6431	Interpretive Report	3		
(A)	354	Curric Mgmt Home Ec	2	354	Curric Mgmt Home Econ	2	(A)	6432	News Decisionmaking	4	6432	News Decisionmaking	3		
(B)	289	Superv Field Expec	1-2				(A)	6433	Govt. & the News Med	4	6433	Govt. & the News Med	3		
(B)	387	Child-Family Pract	2-6				(A)	6435	The Press & Society	4	6435	The Press & Society	3		
(B)	388	Prof Work Experiences	2-5				(A)	6440	Public Relation Tech	4	6440	Public Relation Tech	3		
(B)	389	Superv Field Expec	2 or 3	389	Supervised Field Experience	1-5	(A)	6461	Spec Probl in Journ	1-6	6461	Spec Probl in Journ	1-3		
(A)	395	Workshop Current Topics	1-5	395	Workshop/Current Topics	1-3	(A)	6470	Foreign Press System	4	6470	Foreign Press System	3		
(A)	401	History of Costume	3	401	History of Costume	3	(A)	6471	Internat Media Netw	4	6471	Internat Media Netw	3		
(A)	402	Fashion Merchandising	4	402	Fashion Merchandising	3									
(A)	403	See Pay Asp Clothing	3	403	See-Pay Aspects/Clothing	3									
(A)	404	Tailoring	4	404	Tailoring	3									
(A)	405	Family Economics	5	405	Fam & Consumer Economics	4									
(A)	406	Haouing the Family	4	406	Housing the Family	3									
(A)	407	Res Human Dev Fam Sr	5	407	Res Human Dev Fam Studies	3									
(A)	408	Fam Life Hn Grps	4	408	Invest Fam Life Hn Grps	3									
(C)	409	Household Activity	4		(absorbed into 206 & 111)										
(E)	410	Studies in Home Econ	4		(deleted)										
(C)	412	Adv Flat Pattern Des	5	412	Advanced Apparel Design	3									
(C)	413	Dress Design Graping	3	413	Advanced Home Management	3									
(A)	414	Exper Clothing Conet	3	414	Experimental Cloth Conet	3									
(A)	415	Home Mgmt Low Income	4	415	Home Mgmt/Low Income Fam	3									
(A)	416	Adv Household Equip	4	416	Adv Household Equipment	2									
(A)	417	Home Furnishings Lab	4	417	Home Furnishing Lab	3									
(A)	418	Historic Furnishing	4	418	History of Interiors	3									
(A)	419	Adv Interior Design	3	419	Contact Interiors	3									
(A)	421	Parent Education	3	421	Parent Education	3									
(A)	422	Care Dev Yng Child	3	422	Care Devmnt Yng Child	3									
(A)	423	Centers for Young Ch	3	423	Organ-Frog for Yng Childrn	3									
(A)	424	Children Under Stress	3	424	Children Under Stress	3									
(A)	425	Hospitalized Child	4	425	The Hospitalized Child	3									
(A)	426	Std Indiv & Fam Potent	4	426	Std Indiv & Fam Potential	3									
(A)	427	Indiv-Fam Potent	4	427	Facil-Indiv Fam Potential	3									
(A)	428	Sexuality & Family	4	428	Sexuality & The Family	3									
(A)	429	Family in Later Yrs	4	429	Fam in Middle & Later Yrs	3									
(A)	431	Experimental Foods	4	431	Experimental Foods	3									
(A)	432	Advanced Nutrition	4	432	Advanced Nutrition	3									
(A)	433	Adv Food Production Mgmt	5	433	Adv Food Production Mgmt	3									
(A)	434	Diet Therapy	4	434	Diet Therapy	3									
(A)	435	Infant Nutrition	3	435	Nutr/Infants-Yng Childrn	3									
(A)	436	Nutrition for Aging	3	436	Nutrition for the Aging	3									
(A)	490	Probl in Home Econ	1-5		Independent Study	1-3									
(A)	480	Seminar in Home Econ	1-3	480	Seminar in Home Economics	1-3									
(A)	488	Interknsh Child Life	15		(deleted)										
(A)	489	Interknsh	5-10	489	Interknsh	5-12									
(A)	490	Prabl in Home Econ	1-5	490	Independence Study	1-3									
(E)	6404	Tailoring	4	6404	Student Teaching	1-10									
(E)	6407	Res Human Dev Fam Sr	5		Tailoring										
(E)	6408	Fam Life Hn Grps	4		(deleted as graduate course)										
(E)	6410	Studies in Home Econ	5	6408	Invest Fam Life Hn Grps	3									
(E)	6412	Adv Flat Pattern	4		(deleted as graduate course)										
(E)	6413	Adv Home Management	4	6413	Advanced Home Management	3									
(A)	6414	Exper Clothing Conet	3	6414	Experimental Clothing Conet	3									
(A)	6416	Adv Household Equip	4	6416	Adv Household Equip	2									
(A)	6421	Parent Education	3	6421	Parent Education	3									
(A)	6422	Care Dev Yng Childrn	3	6422	Care Devmnt Yng Childrn	3									
(A)	6423	Centers for Young Ch	3	6423	Organ-Frog for Yng Childrn	3									
(A)	6431	Experimental Foods	4	6431	Experimental Foods	3									
(A)	6432	Advanced Nutrition	4	6432	Advanced Nutrition	3									
(A)	6434	Diet Therapy	5	6434	Diet Therapy	4									
(A)	6435	Infant Nutrition	3	6435	Nutr/Infants-Yng Childrn	3									
(A)	6436	Nutrition for Aging	3	6436	Nutrition for the Aging	3									
(A)	503	Yng Child Affect Devel	4	503	Yng Childrn/Affect Devismt	3									
(A)	504	Family Process	4	504	Understnd Family Process	3									
(A)	507	Fam-Comm Nutrition	4	507	Fam/Community Nutrition	3									
(A)	508	Perinatal Nutrition	4	508	Perinatal Nutrition	3									
(A)	520	Programs-Issues ECE	4		(deleted)										
(A)	521	Behavior in Infancy	4	521	Behavior in Infancy	3									
(A)	589	Field Experience	4-8	589	Field Experience	2-6									

Legal Studies (LEGS)

(A)	200	Perspectve American Law	4	200	Perspectve American Law	3
(A)	301	General Business Law	4	301	General Business Law	3
(A)	302	General Business Law	4	302	General Business Law	3
(A)	305	Comparative Legal Phil.	4	305	Comparative Legal Phil.	3
(C)	306	Intern'l Leg. Prof Hum.	4			
(A)	310	Law & the Citizen	3	310	Law & the Citizen	3
(A)	340	Adm. Criminal Justice	4	340	Adm. Criminal Justice	3
(A)	406	Intern'l Legal Trans.	4	406	Intern'l Legal Trans.	3
(A)	413	Trusts & Estates	4	413	Trusts & Estates	3
(A)	414	Liability Law	4	414	Liability Law	3
(A)	415	Realty Law	4	415	Realty Law	3
(A)	417	Law of Bus. Associates	4	417	Law of Bus. Associates	3
(A)	419	Private Labor Law	4	419	Private Labor Law	3
(A)	420	Commercial Law	4	420	Commercial Law	3
(A)	421	Administrative Law	4	421	Administrative Law	3
(C)	450	Public Law	4	421	Administrative Law	3
(A)	425	Health Care Law	4	425	Health Care Law	3
(A)	429	Empl. Discor.-Affirm Act.	4	429	Empl. Discor.-Affirm Act.	3
(A)	431	Environmental Law	4	431	Environmental Law	3
(A)	440	Consumer Law	4	440	Consumer Law	3
(C)	450	Public Law	4		(absorbed into 421)	
(A)	491	Studies in Bus. Law	1-4	491	Studies in Bus. Law	1-3
(A)	695	Readings for Honors	1-4	695	Readings for Honors	1-3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	235	Indonesian Music	4	235	Indonesian Music	4	2
(D)	(134)	Intro Jazz & Comm Music	4	236	Intro Jazz & Comm Music	4	2
(D)	(334)	Jazz	4	237	Jazz	4	2
(B)	241	Aural Skills IV	2	241	Aural Skills III	2	2
(B)	242	Aural Skills V	2	242	Aural Skills IV	2	2
(B)	243	Aural Skills VI	2				
(A)	300	Small Ensembles	1	300	Small Ensembles	1	1
(E)	301	Choral Literature	3	(deleted)			
(B)	308	Keyboard Harmony I	2	308	Keyboard Harmony I	2	2
(B)	309	Keyboard Harmony II	2	309	Keyboard Harmony II	2	2
(B)	310	Keyboard Harmony III	2				
(B)	311	Jazz Arr & Analy I	3	311	Jazz Arr & Analy I	3	3
(B)	312	Jazz Arr & Analy II	3	312	Jazz Arr & Analy II	3	3
(B)	313	Jazz Arr & Analy III	3				
(A)	315	Orchestration	3	315	Orchestration	3	2
(A)(C)	316	Composition	3	316	Composition	3	3
(A)(C)	(131)	Medieval Music	4				
(A)(C)	(233)	Avant-Garde Music	4				
(A)	318	Symphonic Literature	3	318	Symphonic Literature	2	2
(A)	320	Band Arranging	3	320	Band Arranging	3	2
(B)(B)	332	Romantic Music	4	(absorbed into 132)			
(A)(D)	333	20th-Century Music	4	(231)	Western Art Music III	3	3
(D)	334	Jazz	4	(237)	Jazz History	3	3
(A)(C)	335	Japanese Music	4	(234)	Japanese Music	2	2
(A)	(151)	Aural Skills VII	2	(341)	Aural Skills V	2	2
(A)	401	Hist & Lit of Jazz	2	401	Hist & Lit of Jazz	2	2
(B)	403	Counterpoint I	2	403	Counterpoint I	2	2
(B)	404	Counterpoint II	2	404	Counterpoint II	2	2
(B)	405	Counterpoint III	2				
(A)	406	Prob in Music History	4	406	Prob in Music History	3	3
(A)	407	Performance Practice	3	407	Performance Practice	2	2
(A)	408	Chamber Music Literature	3	408	Chamber Music Literature	2	2
(A)	410	Contemp Music Pro-Sem	3	410	Contemp Music Pro-Sem	2	2
(A)	411	Jazz Pedagogy	3	411	Jazz Pedagogy	2	2
(A)	412	Opera Literature	3	412	Opera Literature	2	2
(E)	417	Music in America	3	(deleted)			
(A)	420	Prob & Tech of Ethno	3	420	Prob & Tech of Ethno	2	2
(B)	424	Electronic Music I	3	424	Electronic Music I	3	3
(B)	425	Electronic Music II	3	425	Electronic Music II	3	3
(B)	426	Electronic Music III	3				
(E)	427	Computer Music I	3	(deleted)			
(E)	428	Computer Music II	3	(deleted)			
(B)	429	Computer Music III	3	(deleted)			
(A)	431	Aesth of Black Music	4	431	Aesth of Black Music	3	3
(C)	432	Black Church Music	4	(partially absorbed into 431)			
(C)	433	Blues-Jazz: 81k Roots	4	(partially absorbed into 431)			
(A)	436	Recording Techniques	4	436	Recording Techniques	2	2
(A)	490	Readings and Research	2-5	470	Readings and Research	2-1	2-1

Music Education (MUED)

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(C)	120	Percussion Class	1	(Combines with 145)			
(A)	125	Percussion Class	1	125	Percussion Class	1	1
(C)	130	Trumpet Class	1	130	Trumpet/French Horn Class	1	1
(C)	135	French Horn Class	1				
(A)	136	Trombone-Euph-Tuba Class I	1	136	Trombone-Euph-Tuba Class	1	1
(C)	140	Clarinet Class	1	140	Clarinet/Saxophone Class	1	1
(C)	145	Saxophone/Bassoon Class	1	(partially absorbed into 146)			
(C)	146	Flute Class	1	146	Flute/Percussion Class	1	1
(C)	(120)	Percussion Class	1				
(C)	146	Uboe Class	1	146	Oboe/Bassoon Class	1	1
(C)	(140)	Clarinet Class	1				
(A)	147	Bassoon Reed Class	1	147	Bassoon Reed Class	1	1
(B)	150	Class Piano	1	150	Class Piano	1	1
(B)	151	Class Piano	1	151	Class Piano	1	1
(B)	152	Class Piano	1	(absorbed into 151)			
(L)	153	Class Piano	1	(deleted)			
(A)	154	Class Piano	1	154	Class Piano	1	1
(L)	155	Class Piano	1	(deleted)			
(B)	156	Reg Piano Non-Major I	2	156	Reg Piano Non-Major I	2	2
(B)	157	Reg Piano Non-Major II	2	157	Reg Piano Non-Major II	2	2
(B)	158	Reg Piano Non-Major III	2	(absorbed into 157)			
(B)	170	Voice Class	1	170	Voice Class	1	1
(B)	177	Voice Class	1	177	Voice Class	1	1
(B)	178	Voice Class	1	(absorbed into 177)			
(C)	180	Violin/Viola Class	1	180	String Class	2	2
(C)	186	Cello/String Bass Class	1				
(A)	190	Troubadour Harp Class	1	190	Troubadour Harp Class	1	1
(A)	195	Guitar Class	1	195	Guitar Class	1	1
(A)	240	Intro Field Experience	4	240	Intro Field Experience	3	3
(A)	249	Music Fundamentals	3	249	Music Fundamentals	3	3
(B)	250	Piano (Inst) Har/Sc Rdg I	1	250	Class Piano: Inst. I	2	2
(B)	251	Piano (Inst) Har/Sc Rdg II	1				
(A)	252	Adv Piano (Inst) Har/Sc Rdg	1	251	Class Piano: Inst. II	1	1
(B)	253	Piano (Chor) Har/Sc Rdg	1	252	Class Piano: Choral I	2	2
(A)	254	Piano (Chor) Har/Sc Rdg	1				
(A)	255	Mus in Elem School	1	(deleted)			
(A)	256	Piano(Chor)Har/Sc Rdg	1	253	Class Piano: Choral II	1	1
(B)	257	Piano(Chor)Har/Sc Rdg	1	254	Class Piano: Choral I	2	2
(B)	258	Piano(Chor)Har/Sc Rdg	1				
(A)	259	Piano(Inst)Har/Trans/Imp	1	255	Class Piano: Choral II	1	1
(A)	(350)	[Beg-Adv] Jr. Accom Piano I	1	256	Accomp as Teach Tool I	1	1
(A)	331	Student Teaching	45	331	Student Teaching	10	10
(A)	332	Student Teaching	5-11	332	Student Teaching	25	25
(A)	340	Jr Meth Proj in Mus	3	340	Jr Meth Proj in Mus	3	3
(A)	349	Mus as a Teaching Tool	3	349	Mus as a Teaching Tool	3	3
(A)	350	[Beg-Adv] Jr. Accom Piano I	1	(absorbed into 256, 257)			
(L)	356	Meth in Sr. High	2	(deleted)			
(A)	358	Choral Repertoire	3	358	Choral Repertoire	2	2
(A)	360	Mus Theatre Prod	3	360	Mus Theatre Prod	2	2
(A)	402	Reg Instr Repair	2	402	Reg Instr Repair	1	1
(A)	459	Adult Group Piano Ped.	3	459	Adult Group Piano Ped.	2	2
(A)	451	Adv Meth for Elem Mus	4	451	Adv Meth for Elem Mus	2	2
(A)	458	Marching Band Techniques	3	458	Marching Band Techniques	2	2
(L)	490	Orchestral Adm & Techn I	3	(deleted)			
(L)	491	Ele Instrumental Meth	3	(deleted)			
(C)	490	Teaching Practicum (GH)	3	491	Teaching Practicum	1-2	1-2
(C)	490	Ele Inst Mus Teaching Prac	3				

Music Graduate Studies (MUGS)

(A)	500	Opera Theater	2	500	Opera Theater	2	2
(A)	501	Choral Literature	3	501	Choral Literature	2	2
(A)	502	Instrumental Literature	3	502	Instrumental Literature	2	2
(A)	503	Critique & Analysis of Music Theory	3	503	Critique & Analysis of Music Theory	2	2

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	504	Psychology of Music	3	504	Psychology of Music	2	2
(A)	507	Advanced Structural Analysis	3	507	Advanced Structural Analysis	2	2
(A)	508	20th Century Analysis Seminar	3	508	20th Century Analysis Seminar	2	2
(A)	509	Composition Seminar	3	509	Composition Seminar	2	2
(A)	510	Source Readings in Music Education	3	510	Source Readings in Music Education	2	2
(A)	511	Repertoire & Pedagogy	3	511	Repertoire & Pedagogy	2	2
(A)	512	Source Readings in Music I	3	512	Source Readings in Music I	2	2
(A)	513	Source Readings in Music II	3	513	Source Readings in Music II	2	2
(A)	514	Advanced Choral Conducting	3	514	Advanced Choral Conducting	2	2
(A)	515	Advanced Instrumental Conducting	3	515	Advanced Instrumental Conducting	2	2
(A)	516	Kodaly Approach in Elementary Music Instruction	3	516	Kodaly Approach in Elementary Music Instruction	2	2
(A)	517	Seminar in Orchestral Performance	3	517	Seminar in Orchestral Performance	2	2
(A)	518	Seminar in Band Performance	3	518	Seminar in Band Performance	2	2
(A)	519	Seminar in Choral Performance	3	519	Seminar in Choral Performance	2	2
(A)	520	Score Reading & Analysis	3	520	Score Reading & Analysis	2	2
(A)	524	Orff and Training Elementary Childrens Voices	3	524	Orff and Training Elementary Childrens Voices	2	2
(A)	525	Seminar in Performance Practice	3	525	Seminar in Performance Practice	2	2
(A)	526	Seminar in Music History	3	526	Seminar in Music History	2	2
(L)	527	Seminar in Musical Notation	3	(Delete)			
(A)	528	Seminar in Style Analysis	3	528	Seminar in Style Analysis	2	2
(A)	529	Seminar in Music Literature	3	529	Seminar in Music Literature	2	2
(A)	530	Seminar in Musical Instruments	3	530	Seminar in Musical Instruments	2	2
(A)	534	Building Instructional Programs in Music	3	534	Building Instructional Programs in Music	2	2
(L)	555	Topics in Arts Administration	3	(Delete)			
(A)	570	Special Problems in Music	2-5	570	Special Problems in Music	1-4	1-4
(A)	580	Graduate Seminar in Music	1-6	580	Graduate Seminar in Music	1-4	1-4
(A)	595	Workshop on Current Topics in Music	1-6	595	Workshop on Current Topics in Music	1-4	1-4
(A)	597	Research Techniques	2	597	Research Techniques	2	2
(A)	598	Directed Research	2	598	Directed Research	2	2
(A)	599	Thesis Research, Document and Recital or Composition	1-9	599	Thesis Research, Document and Recital or Composition	2	2
(A)	521, 531, 532, 533, 535, 536, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555	Applied Music-Individual Instruction	1-5	521, 531, 532, 533, 535, 536, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555	Applied Music-Individual Instruction	1-5	1-5

Music Performance Studies (MUSP)

(B)	100	Small Ensembles	1 (3)	100	Small Ensembles	1 (2)	1 (2)
(L)	160	Sight Reading I	1	160	Sight Reading I	1	1
(B)	185, 221, 232, 236, 241-245, 261-265, 271-272, 281-285, 572, 581, 582, 583, 584, 585	Applied Instruction	1, 2, 3, 4 (3-12)	185, 221, 232, 236, 241-245, 261-265, 271-272, 281-285	Applied Instruction	1, 2, 3, 4 (2-4)	1, 2, 3, 4 (2-4)
(L)	200	Intro to Harpsichord Playing	1	(deleted)			
(B)	210	Piano Repertoire	3	210	Piano Repertoire	3	3
(B)	211	Piano Repertoire	3	211	Piano Repertoire	3	3
(B)	212	Piano Repertoire	3				
(A)	214	Singer's Diction-Italian	2	214	Singer's Diction-Italian	2	2
(B)	215	Organ Repertoire	2	215	Organ Repertoire	2	2
(B)	216	Organ Repertoire	2	216	Organ Repertoire	2	2
(B)	217	Organ Repertoire	2				
(B)	238-239, 277-279, 288-289	Large Ensembles	1-2 (3-0)	238-239, 277-279, 288-289	Large Ensembles	1-2 (2-4)	1-2 (2-4)
(A)	264	Accompanying Techniques	1	264	Accompanying Techniques	1	1
(A)	265	Piano Four-Hand Class	1	265	Piano Four-Hand Class	1	1
(A)	275	Introduction to Opera Workshop	2	275	Introduction to Opera Workshop	1	1
(B)	300	Small Ensembles	1 (3)	300	Small Ensembles	1 (2)	1 (2)
(B)	305						

PRESENT QUARTER COURSE EQUIVALENT SEMESTER COURSE

Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	364	Accompanying Techniques II	2	364	Accompanying Techniques II	1
(B)	366	Seminar in Piano	3			
(B)	367	Piano Pedagogy I	3	367	Piano Pedagogy I	3
(B)	368	Piano Pedagogy III	3	368	Piano Pedagogy II	3
(B)	378	Opera Workshop	2 (6)	378	Opera Workshop	2 (4)
(B)	390	Service Playing	2	390	Service Playing	2
(B)	397	Service Playing	2	397	Service Playing	2
(B)	398	Service Playing	2			
(B)	410	Harpichord Repertoire	3	410	Harpichord Repertoire	3
(B)	411	Harpichord Repertoire	3	411	Harpichord Repertoire	3
(B)	412	Harpichord Repertoire	3			
(A)	415	Organ Construction	3	415	Organ Construction	2
(A)	416	Church Music	3	416	Church Music	2
(B)	421, 431-435, 441-445, 461-465, 471-475, 481-485	Applied Instruction	1, 2, 3, 4 (3-12)	421, 431-435, 441-445, 461-465, 471-475, 481-485	Applied Instruction	1, 2, 3, 4 (2-8)
(B)	436-439, 477-479, 486-489	Large Ensembles	1-2 (3-6)	436-439, 477-479, 486-489	Large Ensembles	1-2 (2-4)
(A)	453	Brass Pedagogy	3	453	Brass Pedagogy	2
(A)	454	Woodwind Pedagogy	3	454	Woodwind Pedagogy	2
(A)	459	String Pedagogy	3	459	String Pedagogy	2
(A)	459	Organ Pedagogy	3	459	Organ Pedagogy	2
(A)	466	Piano Pedagogy Practicum	1	466	Piano Pedagogy Practicum	2
(A)	467	Piano Technology	2	467	Piano Technology	1
(C)	468	Piano Technology II	2		(Deleted)	
(E)	469	Piano Technology III	2		(Deleted)	
(A)	490	Readings, Research, and Performance in Music	1-5	470	Readings, Research, and Performance in Music	1-4
(A)	495	Senior Recital	2	495	Senior Recital	1

* These courses are sequential through the year, although they bear the same course number for succeeding quarters. The numbers in parentheses show the accumulated credit per year for quarters and semesters, respectively -- the conversion shows a credit ratio of 3 to 2 for all courses indicated.

Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	580	Seminar in Phil	1-6	580	Seminar in Phil	1-4
(A)	581	Sem in Amer Stud	5	581	Sem in Amer Studies	3
(C)	590	Teaching Phil	4		(absorbed into 536/537)	
(E)	592	Teaching Internship	1-9		(Deleted)	
(A)	593	Problems in Research	3	593	Problems in Research	3
(A)	598	WKSHP on Cur Top in P	1-6	595	WKSHP on Cur Top in P	1-4
(A)	599	Independent Research	1-4	598	Independent Research	1-3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9

Physical Therapy (PHYT)

Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(B)	301	Human Gross Anatomy I	5	301	Human Gross Anatomy I	5
(B)	302	Human Gross Anatomy II	5	302	Human Gross Anatomy II	5
(B)	304	Princ. of Massage	3	304	Princ. of Massage	2
(B)	305	Human Neuroanatomy	3	305	Human Neuroanatomy	2
(B)	306	Neurophysiology	3			
(A)	309	Func. Anat.	4	309	Func. Anat.	3
(A)	310	Research Methods	3	310	Research Methods	2
(A)	311	Path & Pharma.	3	311	Path & Pharma.	2
(A)	312	Path & Pharma.	3	312	Path & Pharma.	2
(B)	321	P.T. Proc. I	3	321	P.T. Proc. I	2
(B)	322	P.T. Proc. II	4	322	P.T. Proc. II	2
(A)	326	Ap. Med. Sci.	4	326	Ap. Med. Sci.	4
(B)	331	Ther. Exer.	4	331	Ther. Exer.	2
(B)	332	Ther. Exer. II	3			
(B)	381	C. Pract. I	3	381	C. Pract. I	2
(B)	382	C. Pract. II	2			
(B)	383	C. Pract. III	3			
(A)	401	Human Grow. & Dev.	4	401	Human Grow. & Dev.	3
(A)	402	Electrophys. Assess & T.	3	402	Electrophys. Assess & Treat.	2
(B)	403	Eval. Prin. Tech.	3	403	Eval. Prin. Tech.	4
(B)	422	Rehab. Tech. Ap.	3			
(B)	404	Sports Trauma	3	404	Sports Trauma	5
(A)	406	P.T. Trends & Manage.	4	406	P.T. Trends & Manage.	2
(A)	411	Prosth. & Ortho	3	411	Prosth. & Ortho	2
(A)	412	Orthopedic P.T.	4		(absorbed into 404)	
(A)	421	Cardiopul. P.T.	4	421	Cardiopul. P.T.	3
(B)	422	Rehab. Tech. Ap.	3		(absorbed into 403)	
(A)	431	Ther. Exer. III	5	431	Ther. Exer. III	4
(A)	470	Res. Proj. (Ind. Study)	2	470	Res. Proj. (Ind. Study)	2
(A)	481	Cl. Pract. IV	2	481	Cl. Pract. IV	2
(B)	482	Cl. Pract. V	2	482	Cl. Pract. V	2
(B)	483	Cl. Pract. VI	3	483	Cl. Pract. VI	2
(B)	489	Cl. Pract. III	3	489	Cl. Pract. III	2
(B)	489	Cl. Internship	10	489	Cl. Internship	10

Physics (PHYS)

Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(A)	100	Basic Physics	4	100	Basic Physics	3
(A)	101	Physics for Society	4	101	Physics for Society	2
(A)	104	Phys. for Elem. Teachers	3	104	Phys. for Elem. Teachers	2
(A)	105	Physics and Sports	4	105	Physics and Sports	2
(B)	106	Physics of Photography	3	106	Physics of Photography	2
(B), (D)	131	University Physics I	5	211	University Physics I	5
(B)	132	University Physics II	5	212	University Physics II	5
(B)	233	University Physics III	5			
(E)	201	Modern Astronomy	4		(deleted)	
(B)	214	College Physics I	5	201	College Physics I	5
(B)	216	College Physics II	5	202	College Physics II	5
(B)	216	College Physics III	5			
(B), (C)	131	University Physics I	5	211	University Physics I	5
(B)	232	University Physics II	5	212	University Physics II	5
(B)	233	University Physics III	5			
(E)	245	Applied Mechanics	3		(deleted)	
(A)	301	Modern Physics	5	301	Modern Physics	3
(A)	303	Electronics	5	303	Electronics	3
(A)	305	Wave Laboratory	2	305	Wave Laboratory	2
(A)	306	Heat & Statistical Phys.	4	306	Thermodynamics & Stat. Phys.	3
(A)	307	Vibrations & Waves	3	307	Mechanics and Wave Motion	3
(C)	416	Advanced Dynamics	3			
(A)	309	Atomic and Nuclear Phys.	4	309	Atomic and Nuclear Physics	3
(A)	313	Advanced Physics Lab.	1-3	313	Modern Physics Laboratory	2
(A)	321	Recent Progress in Astr.	3	321	Recent Progress in Astr.	2
(A)	350	Musical Acoustics	3	350	Musical Acoustics	3
(A)	430	Sel. Topics in Physics	2-4	400	Sel. Topics in Physics	1-3
(A)	401	Method of Theoretical Phys.	4	401	Method of Theo. Phys. I	3
(C)	405	Adv. Theoretical Physics	4	402	Method of Theo. Phys. II	3
(C)	416	Advanced Dynamics	3			
(A)	403	Stellar Structure & Evol.	4	403	Stellar Structure & Evol.	3
(C)	405	Theoretical Physics II	4		(absorbed into 402)	
(A)	406	Modern Optics	4	406	Modern Optics	4
(A)	410	Solid State Physics	4	410	Solid State Physics	3
(A)	411	Physics of Materials	4	411	Physics of Materials	3
(C)	420	X-ray Crystallography	3			
(A)	412	Infrared Molecular Spec.	4	412	Infrared Molecular Spectra	2
(A)	413	Independent Study	1-3	470	Independent Study	1-2
(C)	416	Advanced Dynamics	3		(absorbed into 307 and 482)	
(A)	417	Quantum Mechanics	4	417	Quantum Mechanics	3
(A)	418	Electricity & Magnetism I	4	418	Electricity & Magnetism I	3
(A)	419	Electricity & Mag. II	4	419	Electricity & Mag. II	3
(C)	420	X-ray Crystallography	3		(absorbed into 411)	
(A)	428	Microcomputer Interfacing	4	428	Microcomputer Interfacing	3
(A)	429	Topics in Microelec.	1-5	429	Sel. Topics in Microelec.	1-3
(A)	430	Sel. Topics in Physics	2-4	400	Sel. Topics in Physics	1-3
(A)	433	Phil./Phys. Space & Time	4	433	Phil./Phys. Space & Time	3
(A)	470	Independent Study	1-3	470	Independent Study	1-2
(A)	490	Spec. Prob. in Physics	1-4	490	Spec. Prob. in Physics	1-3
(A)	501	Tech. of Exp. Physics	4	501	Tech. of Exp. Physics	4
(A)	502	Experimental Methods	4			
(A)	504	Statistical Mechanics	3	504	Statistical Mechanics	2
(A)	505	Adv. Theoretical Phys.	5	505	Adv. Theoretical Physics	5
(C)	506	Appl. of Theo. Physics	3			
(A)	507	Signal Processing	3	507	Signal Processing	2
(A)	523	App. Quantum Mechanics	3	523	Appl. Quantum Mechanics	2
(A)	530	Special Topics	3	530	Special Topics in Physics	2
(A)	570	Readings in Physics	1-4	578	Readings in Physics	1-3
(A)	580	Seminar in Physics	1	580	Seminar in Physics	1
(A)	595	Workshop in Physics	1-6	595	Workshop in Physics	1-4
(A)	597	Research Tech. Seminar	1-3	597	Research Tech. Seminar	1-2
(A)	598	Dir. Research in Phys.	1-3	598	Dir. Research in Physics	1-2
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9

Philosophy (PHIL)

Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
(E)	100	Exper. to Phil	4		(Deleted)	
(A)	181	Intro to Phil	4	181	Intro to Phil	3
(A)	102	Ethics	4	102	Intro to Ethics	3
(A)	103	Logic	4	103	Intro to Logic	3
(B)	1207	Man & Society	4	107	Intro to Social Phil	3
(A)	204	Anaesthetics	4	204	Anaesthetics	3
(C)	207	Man & Society	4	(107)	Intro to Social Phil	3
(A)	210	Phil of Persons	4	210	Phil Devel Persona	3
(B)	310	Hist of Ancient Phil	4	(212)	Hist of Ancient Phil	3
(D)	312	Hist of Modern Phil	4	212	Hist of Modern Phil	3
(A)	230	The Logic of Science	4	230	Scientific Reasoning	3
(A)	240	Topics in Phil	4	240	Topics in Phil	3
(A)	245	Phil of Feminism	4	245	Phil of Feminism	3
(A)	303	Symbolic Logic	4	303	Symbolic Logic	3
(D)	310	Hist of Ancient Phil	4	(211)	Hist of Ancient Phil	3
(B)	311	Hist of Medieval Phil	4	311	Hist of Medieval Phil	3
(B)	312	Hist of Modern Phil	4	(212)	Hist of Modern Phil	3
(A)	313	Contemporary Phil	4	313	Contemporary Phil	3
(A)	315	American Thought	4	315	American Thought	3
(A)	317	Phil of Religion	4	317	Phil of Religion	3
(A)	318	Phil of Law	4	318	Phil of Law	3
(A)	319	Phil of Death & Dying	4	319	Phil of Death & Dying	3
(A)	320	Business Ethics	4	320	Business Ethics	3
(A)	321	Indian Philosophy	4	321	Indian Philosophy	3
(E)	322	Chinese Philosophy	4		(Deleted)	
(A)	323	Asian Religions	4	323	Asian Religions	3
(E)	324	Hist Occidental Reli	4		(Deleted)	
(A)	325	Commun-Fascism-Democ	4	325	Commun-Capitalism and Democ	3
(A)	327	Phil of Punishment	4	327	Phil of Punishment	3
(A)	331	Existentialism	4	331	Existentialism	3
(A)	332	Environmental Ethics	4	332	Environmental Ethics	3
(A)	333	Phil in Sci-Fiction	4	333	Phil in Sci-Fiction	3
(A)	334	Phil in Literature	4	334	Phil in Literature	3
(A)	335	Phil of Film	4	335	Phil of Film	3
(A)	348	Problems in Phil	4	340	Problems in Phil	3
(A)	342	Medical Ethics	4	342	Medical Ethics	3
(A)	395	WKSHP Current Topics	1-5	395	WKSHP Current Topics	1-4
(E)	402	Hist of Ethics	4		(Deleted)	
(A)	403	Adv Symbolic Logic	4	403	Topics in Logic	3
(A)	406	Phil of Language	4	406	Phil of Language	3
(A)	412	Theory of Knowledge	4	412	Theory of Knowledge	3
(A)	414	Metaphysics	4	414	Metaphysics	3
(A)	415	Topics American Phil	4	415	Topics American Phil	3
(A)	418	Phil of History	4			

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
Astronomy (ASTR)						
(E)	110	Introduction to Astronomy	4	(deleted)		
(A)	201	Modern Astronomy	4	201	Modern Astronomy	3
(A)	212	The Solar System	3	212	The Solar System	3
(A)	305	Life in the Universe	3	305	Life in the Universe	3
(A)	307	Understanding the Cosmos	3	307	Understanding the Cosmos	3
(A)	309	Astrophotography	3	309	Astrophotography Lab.	1
(A)	321	Recent Progress in Astr.	3	321	Recent Progress in Astr.	2
(A)	403	Stellar Structure & Evol.	4	403	Stellar Structure & Evol.	3
Political Science (POLS)						
(A)	101	Intro to Politics	4	101	Intro to Politics	3
(A)	201	American Government	4	201	American Government	3
(A)	211	Intro to Public Admin	4	221	Intro to Public Admin	3
(A)	250	Human Nature & Pol	4	250	Human Nature & Pol	3
(A)	271	Intro to World Pol	4	271	Intro to Comp Gov. & World Pol	3
(D)	290	Intro to Pol. Inquiry	4	290	Intro to Pol. Inquiry	2
(A)	301	Modern Pol. Ideologies	4	301	Modern Pol. Ideologies	3
(A)	302	Amer Dom Policy Proc	4	302	Amer Dom Policy Proc	3
(A)	304	Amer Pol Thought I	4	304	Amer Pol Thought I	3
(A)	330	Urban Management	4	330	Urban Management	3
(C)	331	State Govt	4	331	State & Local Government	3
(C)	332	Local Govt	4			
(A)	333	Pol. Science & Pub Pol	4	333	Pol. Science & Pub Pol	3
(A)	334	Health & Medical Pol	4	334	Health & Medical Pol	3
(A)	335	Energy Politics	4	335	Energy Politics	3
(A)	336	Environmental Pol	4	336	Environmental Pol	3
(A)	337	Food Resources Pol	4	337	Food Resources Pol	3
(A)	341	Public Opinion	4	341	Public Opinion	3
(C)	444	Political Behavior	4			
(A)	342	Mass Media & Publ Pol	4	342	Mass Media & Publ Pol	3
(A)	345	Legislative Process	4	345	Legislative Process	3
(A)	346	Pres & Exec Process	4	346	Pres & Exec Process	3
(A)	347	Judicial Process	4	347	Judicial Process	3
(A)	351	Western European Pol	4	351	Western European Pol	3
(A)	354	Gov & Pol of USSR	4	354	Govts of USSR & E Europe	3
(A)	355	Govts & Pol of Lat Amer	4	355	Govts & Pol of Lat Amer	3
(C)	456	Major Govt Latin Amer	4			
(A)	361	Govts. & Pol of Mid East	4	361	Govts & Pol of Mid East	3
(A)	366	Govts. & Pol of SE Asia	4	366	Govts. & Pol of Asia	3
(A)	368	African Pol Systems	4	368	Govts. & Pol of Africa	3
(A)	371	Intro to Int'l. Rel	4	371	Intro to World Politics	3
(A)	372	Contemp World Pol	4	372	Contemp. World Pol	3
(C)	374	American Foreign Pol	4	374	Amer Foreign Pol Process	3
(C)	436	Conduct Amer For Affairs	4			
(E)	390	Anal. of Comput. Pol-Hist & Data	4	(Deleted)		
(A)	395	Wksp Current Topics	1-5	395	Wksp Current Topics	1-4
(A)	400	Honors Sem Cont Pol	1-12	1495	Honors Sem Cont Pol	1-8
(A)	435	Topics in Pol Sci	1-2	400	Topics in Pol Sci	1-3
(A)	402	West Pol Thought I	4	402	West Pol Thought I	3
(A)	403	West Pol Thought II	4	403	West Pol Thought II	3
(A)	404	20th Cent Pol Thought	4	404	20th Cent Pol Thought	3
(A)	405	Amer Pol Thought II	4	405	Amer Pol Thought II	3
(A)	416	Con Law Powers & Rel.	4	416	Con Law: Powers & Rel.	3
(A)	417	Con Law: Proced. Rights	4	417	Con Law: Proced. Rights	3
(A)	418	Con Law: Substant. Rights	4	418	Con Law: Substant. Rights	3
(A)	419	Jurisprudence	4	419	Jurisprudence	3
(A)	420	Admin Law	4	420	Admin Law	3
(A)	421	Bureaucratic Politics	4	421	Bureaucratic Politics	3
(A)	422	Survey of Publ Admin	4	422	Survey of Publ Admin	3
(A)	423	Compara Public Admin	4	423	Compara Public Admin	3
(A)	424	Supr Court & Contem Iss	4	424	Supr Court & Contem Iss	3
(A)	425	Const. Law Advocacy	4	425	Const. Law Advocacy	3
(A)	430	Metropolitan Govt	4	430	Politics of Metropolitan Areas	3
(A)	431	Regulatory Policy	4	431	Regulatory Policy	3
(A)	434	Sexual Politics	4	434	Sexual Politics	3
(C)	436	Conduct Amer For Affairs	4			
(C)	440	Political Parties	4	440	Political Parties & Voter Beh.	3
(C)	442	Voter Behavior	4			
(C)	443	Mass Media in Pol	4	443	Mass Media in Pol	3
(C)	444	Political Behavior	4	444	Political Behavior	3
(C)	452	Pol Violence & Revol	4	452	Pol Violence & Revol	3
(C)	453	Soviet Beh & Inst. Dev	4			
(C)	454	Soviet Pol. System	4	454	Soviet Pol System & Inst. Dev.	3
(C)	456	Major Govt Latin Amer	4			
(A)	470	Soviet Foreign Policy	4	458	Soviet Foreign Policy	3
(A)	459	Intergov. Relations	4	459	Intergov. Relations	3
(C)	460	Politics of Dev. Nations	4	460	Pol & Iss of World Dev.	3
(C)	461	Iss in World Dev.	4			
(A)	470	Soviet Foreign Policy	4	458	Soviet Foreign Policy	3
(A)	490	Individual Problems	1-4	470	Individual Readings	1-3
(A)	473	Int'l Law	4	473	Int'l Law	3
(A)	475	Int'l Organization	4	475	Int'l Organization	3
(A)	490	Individual Problems	1-4	470	Individual Readings	1-3
(A)	491	Seminar for Interns	4	491	Seminar for Interns	3
(A)	492	Field Study	1-4	492	Field Study	1-3
(A)	495	Topics in Pol Sci	1-4	400	Topics in Pol Sci	1-3
(A)	501	Modern Political Theory	4	501	Modern Political Theory	3
(A)	511	Public Law	4	511	Public Law	3
(A)	520	Publ Admin & Pub Pol	4	520	Publ Admin & Pub Pol	3
(A)	521	Admin Theory & Beh	4	521	Admin Theory & Beh	3
(C)	523	Pub Pol Analysis	4	523	Policy Analy & Pol Eval	3
(C)	529	Pub Pol Eval	4			
(A)	526	Pub Personnel Admin	4	526	Pub Personnel Admin	3
(A)	527	Urban Management	4	527	Urban Management	3
(A)	528	Govt Budg & Fiscal Pol	4	528	Govt Budg & Fiscal Pol	3
(A)	529	Pub Pol Eval	4			
(A)	531	American Govt	4	531	American Govt	3
(A)	532	Sem in State & Loc Govt	4	532	Sem in State & Loc Govt	3
(C)	535	Topics in Pub Management	4	535	Problems in Pub Admin/Pol	3
(C)	536	Topics in Pub Admin	4			
(A)	537	Publ Sect Labor Rel	4	537	Publ Sect Labor Rel	3
(A)	551	Sem in Compar Govt	4	551	Sem in Compar Govt	1-3
(A)	570	Read in Pol Sci	1-4	570	Read in Pol Sci	1-3
(A)	571	Sem in Int'l Rel	4	571	Sem in Int'l Rel	3
(A)	580	Grad Seminar	1-4	580	Grad Seminar	1-3
(A)	581	Sem in Amer Studies	5	581	Sem in Amer Studies	1-4
(A)	589	Internship	1-8	589	Internship	1-6
(A)	595	Wkshp in Pub Admin	4	595	Wkshp in Pub Admin	3
(A)	596	Res Meth in Pub Admin	4	596	Res Meth in Pub Admin	3
(A)	597	Sem in Pol Research	4	597	Sem in Pol Research	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE		
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Sem. Hrs.
Popular Culture (POPC)						
(A)	160	Intro. Pop. Culture	4	160	Intro. Popular Culture	3
(A)	165	Pop. Culture & Media	4	165	Popular Culture & Media	3
(A)	220	Intro. Folklore/Folklife	4	220	Intro. Folklore/Folklife	3
(C)	230	Perspect. on Pop. Cult.	4			
(A)	240	History Pop. Culture	4	231	Studies in Popular Culture	1-3
(A)	250	Intro. Popular Film	4	240	History Popular Culture	3
(A)	270	Contemp. Pop. Lit.	4	250	Introduction Popular Film	3
(A)	280	Intro. Popular Music	4	270	Contemp. Popular Literature	3
(A)	290	Television as Pop. Cult.	4	280	Intro. Popular Music	3
(A)	290	Television as Pop. Cult.	4	290	Television as Popular Cult.	3
(A)	350	Adv. Std. Popular Film	4	350	Adv. Std. Popular Film	3
(E)	355	Hist. Amer. Pop. Film	4	355	Hist. American Popular Film	3
(C)	360	Amer. Dream/Nightmare	4			
(A)	370	Popular Literature	5	370	Hist. Popular Literature	3
(A)	380	Contexts Pop. Music	4	380	Contexts Popular Music	3
(A)	390	The Electric Media	4	390	The Electric Media	3
(A)	395	Wkshp Current Topics	1-5	395	Workshop in Current Topics	1-3
(A)	400	Senior Sem. Pop. Cult.	4	400	Senior Seminar Pop. Cult.	2
(A)	424	Topics in Folklore	4	424	Topics in Folklore	3
(A)	426	Popular Entertainments	4	426	Popular Entertainments	3
(A)	460	Pop. Cult. Adv. Studies	4	460	Popular Cult. Adv. Studies	3
(C)	470	Pop. Literary Genres	4			
(A)	400	Senior Sem. Pop. Cult.	4	480	Senior Sem. Pop. Cult.	2
(A)	490	Probl. Pop. Culture	1-4	490	Problems in Popular Culture	1-3
(C)	591	Intro. Grad. Study P.C.	4			
(C)	570	Readings in Pop. Cult.	1-4	570	(absorbed into 597)	
(C)	571	Spec. Probs. Pop. Cult.	1-4			
(A)	580	Seminar Pop. Culture	4	580	Seminar Popular Culture	3
(A)	589	Internship	1-12	589	Internship	1-8
(A)	590	Teaching Pop. Culture	4	590	Teaching Popular Culture	3
(A)	595	Wksp Current Topics PC	1-6	595	Workshop Current Topics Pop. Cult.	1-4
(C)	501	Intro. Grad. Study, P.C.	4			
(C)	597	Theory & Methodology	4	597	Pop. Culture Theory & Meth.	5
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9
Psychology (PSYC)						
(A)	201	General Psychology	5	201	General Psychology	4
(B)	231	Res Methods in Psychology	4	231	Res Methods in Psychology	4
(B)	232	Res Methods in Psychology	4			
(A)	240	Gen Seminar in Psych	1-5	240	Gen Seminar in Psych	1-3
(B)	270	Quantitative Methods I	4	270	Quantitative Methods I	3
(B)	271	Quantitative Methods II	4	271	Quantitative Methods II	3
(B)	470	Quantitative Methods III	5			
(A)	250	Intro to Lab Methods	4	250	Intro to Lab Methods	4
(A)	301	Brain Mechanisms of Behav	4	301	Brain Mechanisms of Behav	4
(A)	302	Educational Psychology	4	302	Educational Psychology	3
(B)	303	Developmental Psychology	3	303	Psych of Child Dev	3
(B)	304	Developmental Psychology	3	304	Adolescent Development	2
(B)	404	Adv Developmental Psych	3			
(A)	305	Personality Adjustment	3	305	Personality Adjustment	2
(B)	306	Psychology of Women	4	306	Psych of Gender	3
(A)	461	Differential Psych	4	461	Psych of Human Sexuality	3
(A)	307	Psych of Human Sexuality	4	307	Psych of Human Sexuality	3
(B)	308	Intro to Clinical Psych	4	308	Intro to Clinical Psych	3
(A)	309	Psychology of Aging	3	309	Psychology of Aging	3
(B)	311	Social Psychology	3	311	Social Psychology	3
(B)	411	Interpersonal Commun	4	411	Princ of Soc Interaction	2
(B)	312	Princ of Soc Interaction	3	312	Princ of Soc Interaction	2
(B)	412	Exper Group Dynamics	4	412	Exper Group Dynamics	4
(A)	313	Res in Social Psychology	4	313	Res in Social Psychology	4
(B)	315	Applied Psychology	4	315	Assessment of Work	3
(B)	413	Applied Exper Psych	4			
(A)	320	Conditioning	4	320	Conditioning	4
(A)	321	Human Learning	4	321	Human Learning	4
(A)	322	Psychology of Thinking	4	322	Psychology of Thinking	4
(B)	323	Psychology of Language	4	323	Psych of Lang Development	3
(B)	421	Theories of Lang Develop	4	421	Psych of Lang Development	3
(B)	324	Am Sign Lang of Deaf	4	324	Am Sign Lang of Deaf	4
(B)	327	Biobk & Self-Control	4	327	Psychophysiology	4
(B)	328	Psychophysiology	4			
(E)	329	Applied Behavioral Analysis	4			
(A)	330	Psychobiol Emot & Motiv	4	330	(deleted) Emot & Motiv	4
(B)	331	Human Motivation	4	331	(deleted) Emot & Motiv	4
(A)	340	Sensation & Perception	4	340	Sensation & Perception	4

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(B)	501	History of Psychology	3	[B01]	History of Psychology I	3	
(B)	502	History of Psychology	3	[B02]	History of Psychology II	3	
(B)	503	History of Psychology	3				
(A)	504	Developmental Psyc	4	504	Child Development	4	
(B)	505	Personality Theory I	3	[505]	Personality Theory	3	
(B)	506	Personality Theory II	3				
(A)	508	Beh Path & Interviewing	4	508	Beh Path & Interviewing	4	
(B)	510	Learning I: Cl Cond	3	[510]	Fund & Applica of Lrng	3	
(B)	511	Learning II: Op Cond	3				
(A)	512	Learning III: Hum Lrng	3	512	Cognitive Psyc	3	
(B)	514	Physiological Psyc I	3	[514]	Psychobiology	3	
(B)	515	Physiological Psyc II	3				
(A)	516	Human Judgment	4	516	Human Judgment	4	
(C)	517	Sensation & Perception	3	[517]	Sensation & Perception	3	
(C)	614	Sensory Processes	3				
(E)	520	Proseminar I	3		(delete)		
(C)	521	Proseminar II	3		(delete)		
(C)	522	Proseminar III	3		(delete)		
(A)	524	Methodology in Psyc I	3	524	Methodology in Psyc I	2	
(A)	525	Methodology in Psyc II	3	525	Methodology in Psyc II	2	
(A)	526	Methodology in Psyc III	3	526	Methodology in Psyc III	2	
(A)	534	Theories of Develop I	4	534	Theories of Develop I	2	
(A)	535	Theories of Develop II	4	535	Theories of Develop II	2	
(C)	536	Lang Dev	3		(delete)		
(C)	541	Res Meth in Soc Psyc	3		(absorbed into 642)		
(B)	550	Contemp Res I/O Psyc	3	[550]	Contemp Probs in I/O Res	3	
(B)	551	Contemp Res I/O Psyc	3				
(C)	553	Applied Exp Psyc	3		(absorbed into 556, 557)		
(C)	554	Interviewing	3	554	Interviewing	3	
(C)	555	Job Analysis & Design	3	556	Organizational Staffing	3	
(C)	556	Prediction & Selection	3	557	Work Outcomes	3	
(B)	557	Work Motivation	3	558	Motivation & Morale	3	
(B)	558	Job Satisfaction	3	559	Social Environments at Work	3	
(B)	559	Organizational Psyc	3				
(A)	561	Psychometrics I	4	561	Psychometrics I	3	
(A)	562	Psychometrics II	4	562	Psychometrics II	2	
(A)	563	Psychometrics III	4	563	Psychometrics III	3	
(C)	567	Basic Stat I	3	[567]	Basic Stat I	3	
(A)	568	Basic Stat II	3	[568]	Basic Stat II	3	
(A)	569	Basic Stat III	3				
(A)	580	Seminar	3-18	580	Seminar	1-5	
(A)	589	Thesis Research	1-9	589	Thesis Research	1-9	
(A)	605	Adv Personality I	3		(delete)		
(A)	606	Adv Personality II	3		(delete)		
(A)	607	Beh Path III	3		(delete)		
(A)	608	Beh Path in Children	4	608	Beh Path in Children	3	
(A)	609	Clinical Practice	1+	609	Clinical Practice	1-6	
(C)	614	Sensory Systems	3		(absorbed into 511)		
(A)	631	Theor & Tech Therapy I	4	631	Theor & Tech Therapy I	3	
(A)	632	Theor & Tech Therapy II	3	[632]	Theor & Tech Therapy II	2-4	
(B)	633	Theor & Tech Therapy III	3				
(C)	642	Theories of Soc Psyc I	3	642	Theories of Soc Psyc I	3	
(C)	643	Theories of Soc Psyc II	3	643	Theories of Soc Psyc II	3	
(B)	664	Psyc Assess I	4	[664]	Psyc Assess I	2	
(B)	665	Psyc Assess II	4	[665]	Psyc Assess II	2	
(B)	666	Psyc Assess III	4	[666]	Psyc Assess III	2	
(B)	667	Psychophysics	3	[667]	Scaling	3	
(B)	668	Scaling	3				
(A)	669	Advanced Quant	2-4	669	Advanced Quant	1-3	
(A)	670	Independent Study	3-15	670	Independent Study	1-12	
(A)	682	General Seminar	1+	682	General Seminar	1-5	
(A)	685	Research Problems	3-18	685	Research Problems	1-5	
(E)	765	Adv Prog Techniques	4		(delete)		
(E)	780	Clinical Research	4		(delete)		
(A)	799	Dissertation Research	1-16	799	Dissertation Research	1-16	
Courses for Graduates and Undergraduates:							
(A)	404	Adv Dev Psyc	3		(absorbed into 303,304)		
(A)	460	Intr Psyc Testing	4	460	Intr Psyc Testing	4	
(E)	463	Theories of Intelligence	4		(delete)		

Rehabilitation Counseling (REHB)

(A)	401	Intr Rehabil Svcs	4	401	Intr Rehabil Svcs	3	
(A)	556	Prin Rehab Counsel	4	556	Prin Rehab Counsel	3	
(A)	557	Counsel Rehab Prac	4	557	Counsel Rehab Prac	3	
(A)	558	Psyc Aspects Otsabil	4	558	Psyc Aspects Otsabil	3	
(A)	559	Job & Wk Eval Rehab	4	559	Job & Wk Eval Rehab	3	
(A)	560	Wk Adjus Job Placem	4	560	Wk Adjus Job Placem	3	
(A)	561	Family Intervn Rehab	4	561	Family Intervn Rehab	3	
(A)	565	Medical Aspects	4	565	Medical Aspects	3	
(A)	566	Biological & Rehab	4		(deleted)		
(A)	567	Commun Apreh Counsel	4	567	Commun Apreh Counsel	3	
(A)	583	Agency Observation	3		(deleted)		
(A)	584	Rehabil Field Exper	3	584	Rehabil Field Exper	3	
(A)	585	Pre-Pract Rehab Coun	3	585	Pre-Pract Rehab Coun	3	
(A)	586	Practicum Rehab Coun	5	586	Practicum Rehab Coun	3	
(A)	589	Clinical Internship	12	589	Clinical Internship	12	
(A)	597	Research in Rehabil	3	597	Research in Rehabil	3	
(A)	570	Readings in Rehabil	1-6	570	Readings in Rehabil	1-4	
(A)	580	Seminar Rehab Coun	1-5	580	Seminar Rehab Coun	1-3	
(A)	587	Fld Placemnt-Pract	1-6	587	Fld Placemnt-Pract	1-4	
(A)	590	Tch Rehab Coun G Lev	1-4	590	Tch Rehab Coun G Lev	1-3	
(A)	595	Wksp Rehab Coun Top	1-4	595	Wksp Rehab Coun Top	1-3	
(A)	598	Directed Resch Rehab	1-6	598	Directed Resch Rehab	1-4	
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	
(A)	680	Adv Sem in Rehab Coun	1-5	680	Adv Sem in Rehab Coun	1-3	

Romance Languages (ROML)

(A)	200	Europe-Lac Am Cinema	4	200	Europe-Lac Am Cinema	3	
(A)	262	African Lit in Trans	4	262	African Lit in Trans	3	
(F)	491	Readings Romance Lan	1-4	470	Readings Romance Lan	1-3	
(B)	511	History Romance Lang	4	[511]	History Romance Lang	3	
(B)	555	Comp Romance Linguis	4				
(B)	586	Topic Latin Civilita	1-6	586	Topic Latin Civilita	3	
(B)	590	Tch Coll French-Span	1-4	590	Tch Coll French-Span	1-3	
(A)	595	Wksp Topics Rom Lang	1-4	595	Wksp Topics Rom Lang	1-3	

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
French (FREN)							
(B)	101	Elementary French I	4	[101]	Elementary French I	4	
(B)	102	Elementary French II	4	[102]	Elementary French II	4	
(B)	103	Elementary French III	4				
(B)	111	French Cult Ser I	4	[111]	French Cult Ser I	4	
(B)	112	French Cult Ser II	4	[112]	French Cult Ser II	4	
(B)	113	French Cult Ser III	4				
(A)	201	Intermediate Fren I	4	201	Intermediate Fren I	3	
(A)	202	Intermediate Fren II	4	202	Intermediate Fren II	3	
(A)	211	French Cult Ser IV	4	211	French Cult Ser III	3	
(A)	212	French Cult Ser V	4	212	French Cult Ser IV	3	
(E)	260	Fr Women Writ Transl	3		(deleted)		
(E)	261	Mod Fren Writ Transl	3		(deleted)		
(A)	350	French Connection	3	350	Problems in Transl	3	
(A)	351	French Comp-Conv I	3	351	French Comp-Conv I	3	
(A)	352	French Comp-Conv II	3	352	French Comp-Conv II	3	
(A)	353	French Diction	3	353	French Diction	3	
(A)	355	French Linguistics	4	355	French Linguistics	3	
(B)	361	Intr French Lit I	3	[361]	Intra French Lit	3	
(B)	362	Intr French Lit II	3				
(A)	371	French Civilization I	3	371	French Civilization I	3	
(A)	372	French Civilization II	3	372	French Civilization II	3	
(A)	389	Contemp Touraine	4	389	Contemp Touraine	3	
(B)	451	Advanced Composition	3	[451]	Advanced Comp-Conv	3	
(B)	452	Advanced Composition	3		(absorbed into 451,45B/9)		
(A)	453	Adv French Phonetics	3	453	Adv French Diction	2	
(C)	463	(elements of 452)	3	[459]	Career French I	3	
				459	Career French II	3	
(C)	468	Four Fren Dramatists	4	[464]	17th Cent French Lit	1-3	
(C)	469	Baroque-Class Auth 17 C	4	[470]	Readings French Lit	4	
(A)	491	Readings French Lit	1-4	470	Readings French Lit	1-3	
(B)	474	The Enlightenment	4	[474]	18th Cent French Lit	4	
(B)	475	Preromanticism	4				
(B)	484	The Romantic Period	4	[484]	19th Cent French Lit	4	
(B)	485	Realism & Naturalism	4				
(A)	489	French Literature	4	488	French Literature	3	
(A)	491	Readings French Lit	1-4	[470]	Readings French Lit	1-3	
(B)	494	Modern French Novel	4	[494]	20th Cent French Lit	4	
(B)	495	Mod Fr Practy Drama	4				
(A)	500	French Grad Students	3	500	French Grad Students	4	
(A)	511	History French Lang	4	511	History French Language	3	
(A)	512	Intra co Old French	4	512	Intra co Old French	3	
(A)	555	French Linguistics	4	555	French Linguistics	3	
(A)	556	French Grammar Style	4				
(A)	559	Self Expr Trans Sty	4	559	Self Expr Trans Sty	3	
(A)	561	French Medieval Lit	4	561	French Medieval Lit	3	
(A)	563	Lit of Renaissance	4	563	Lit of Renaissance	3	
(A)	564	Lit of Baroque Age	4	564	Sen in 17th C French Lit	3	
(C)	565	Seminar in Rabelais	4				
(B)	566	Seminar in Ronsard	4	566	Sen Writers of Touraine	3	
(A)	570	Grad Reading French	1-4	570	Grad Reading French	1-3	
(A)	573	18th Century Novel	4	573	18th Century Novel	3	
(A)	579	Seminar in Balzac	4	579	Sen in 19th C French Lit	3	
(A)	580	French Poetry	4	580	Modern French Poetry	3	
(A)	581	Contemp French Novel	4	581	Contemp French Novel	3	
(A)	582	Contemp Fren Theater	4	582	Contemp French Theater	3	
(A)	583	French Women Writers	4	583	French Women Writers	3	
(A)	584	Contemp Black Poets	4	584	Contemp Black Poets	3	
(A)	586	Contemp French Civil	4	586	Contemp French Civil	3	
(A)	589	French Literature	4	588	French Literature	3	
(E)	597	Bibliography & Res	2		(deleted)		
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	
Italian (ITAL)							
(B)	101	Elementary Ital I	4	[101]	Elementary Italian I	4	
(B)	102	Elementary Ital II	4	[102]	Elementary Italian II	4	
(B)	103	Elementary Ital III	4				
(A)	201	Intermediate Ital I	4	201	Intermediate Ital I	3	
(A)	202	Intermediate Ital II	4	202	Intermediate Ital II	3	
(A)	261	The Italian Cinema	3	261	The Italian Cinema	3	
(A)	351	Ital Comp-Convrs	3	351	Ital Comp-Convrs	3	
(A)	352	Ital Comp-Convrs	3	352	Ital Comp-Convrs	3	
(B)	361	Intra Italian Lit I	3	[361]	Intra Italian Literature	3	
(A)	371	Ital Civilization I	3	371	Ital Civilization I	3	
(A)	372	Ital Civilization II	3	372	Ital Civilization II	3	
(A)	479	Ital Lit Adv Stud	3	479	Ital Lit Adv Stud	3	
Latin (LAT)							
(B)	101	Elementary Latin I	4	[101]	Elementary Latin I	4	
(B)	102	Elementary Latin II	4	[102]	Elementary Latin II	4	
(B)	103	Elementary Latin III	4				
(A)	141	Great Greek Minds	4	141	Great Greek Minds	3	
(A)	142	Great Roman Minds	4	142	Great Roman Minds	3	
(A)	143	Gk-Latin Elem in Engl	4	143	Gk-Latin Elem in Engl	3	
(A)	201	Intermediate Latin I	4	201	Intermediate Latin I	3	
(A)	202	Intermediate Latin II	4	202	Intermediate Latin II	3	
(B)	351	Latin Prose Compos	5	[351]	Prose Composition I	3	
				352	Prose Composition II	3	
(C)	405	Latin Comedy	3				
(C)	421	Cicero Essays	3	[361]	Latin Literature I	3	
(C)	472	Cicero Letters	3				
(C)	465	Virgil the Aeneid	3				
(C)	475	Horace	3	[362]	Latin Literature II	3	
(C)	476	Livy	3				
(C)	489	Latin Literature	3				
(C)	405	Latin Comedy	3				
(E)	414	Adv Latin Grammar	3				
(C)	463	Virgil the Aeneid	3				
(A)	491	Readings Latin Lit	1-4	470	Readings Latin Lit	1-3	
(C)	471	Cicero Essays	3		(absorbed into 361)		
(C)	472	Cicero Letters	3		(absorbed into 362)		
(C)	475	Horace	3		(absorbed into 362)		
(C)	476	Livy	3		(absorbed into 362)		

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
Spanish (SPAN)							
(B)	101	Elementary Spanish I	4	101	Elementary Spanish I	4	4
(B)	102	Elementary Spanish II	4	102	Elementary Spanish II	4	4
(B)	103	Elementary Spanish III	4	103	Elementary Spanish III	4	4
(B)	111	Hispanic Cult Ser I	4	111	Hispanic Cult Ser I	4	4
(B)	112	Hispanic Cult Ser II	4	112	Hispanic Cult Ser II	4	4
(B)	113	Hispanic Cult Ser III	4	113	Hispanic Cult Ser III	4	4
(A)	141	Conversa Fr Med Pers	5	141	Conversa Fr Med Pers	5	3
(A)	201	Intermediate Span I	4	201	Intermediate Span I	4	3
(A)	202	Intermediate Span II	4	202	Intermediate Span II	4	3
(A)	211	Hispanic Cult Ser IV	4	211	Hispanic Cult Ser IV	4	3
(A)	212	Hispanic Cult Ser V	4	212	Hispanic Cult Ser V	4	3
(A)	221	Hispanic Songs	1	221	Hispanic Songs	1	1
(A)	231	Hispanic Folk Dancing	1	231	Hispanic Folk Dancing	1	1
(C)	301	Cultural Rta Span-Am	4	(absorbed into 377-378)			
(C)	351	Spanish Composition	3	351	Span Comp-Conversation I	3	3
(C)	352	Spanish Conversation	3	352	Span Comp-Conversation II	3	3
(C)	354	Grammar Review	3	(absorbed into 351, 352)			
(C)	360	Literary Analysis	3	(absorbed into 367, 368)			
(C)	367	Span Peninsular Lit	4	367	Intro to Span Pen Lit	4	3
(C)	368	Span American Liter	4	368	Intro to Span Am Lit	4	3
(A)	371	Spanish Civilization	3	371	Spanish Civilization	3	3
(A)	377	Civil Mexico-Caribb	3	377	Civil Mexico-Caribb	3	3
(A)	378	Civil South America	3	378	Civil South America	3	3
(C)	380	Spa-Eng Bilingualism	2	380	Spa-Eng Bilingualism	2	2
(F)	382	Span Bus Correspond	2	382	Span Bus Correspond	2	2
(C)	431	Span-Am Fiction I	4	431	Span-American Fiction I	4	3
(B)	432	Span-Am Fiction II	4	432	Span-American Fiction II	4	3
(B)	440	Span Mid Age-Pre Ren	4	440	Medieval-Golden Age Lit	4	3
(B)	441	Spanish Golden Age	4	441	Spanish Golden Age	4	3
(A)	442	Span Liter 19th Cent	4	442	Span Liter 19th Cent	4	3
(A)	444	Span Liter 20th Cent	4	444	Span Liter 20th Cent	4	3
(C)	475	Generation 1898	1-4	475	Generation 1898	1-4	1-3
(A)	450	Adv Grammar & Compos	4	450	Adv Grammar & Composition	4	3
(A)	455	Applied Linguistics	4	455	Applied Linguistics	4	3
(A)	463	Career Spanish	3	463	Career Spanish	3	3
(A)	491	Rdgs in Hispan Lit	1-4	491	Rdgs in Hispan Lit	1-4	1-3
(C)	475	Generation 1898	1-4	(absorbed into 444)			
(B)	481	Span Am Lit Colonial	3	481	Sp Am Lit Col to Modern	3	3
(A)	485	Spanish Amer Poetry	3	485	Sp Am Lit Mod to Present	3	3
(A)	486	Spanish Amer Theater	3	486	Spanish Amer Theater	3	3
(A)	488	Contemp Mexican Lit	3	488	Contemp Mexican Lit	3	3
(A)	489	Hispanic Studies	3	489	Hispanic Studies	3	3
(C)	492	Theses Span Amer Lit	3	492	Theses Span Amer Lit	3	3
(A)	491	Rdgs in Hispan Lit	1-4	(absorbed into 489)			
(C)	492	Theses Span Amer Lit	3	492	Theses Span Amer Lit	3	1-3
(A)	500	Spanish for Grad Stud	5	500	Spanish for Grad Students	5	4
(E)	511	History Spanish Lang	4	511	History Spanish Lang	4	3
(B)	512	Topics Span Linguist	4	512	Topics in Span Lang-Ling	4	3
(C)	555	Structure Span Lang	4	555	Structure Span Lang	4	3
(A)	547	Span Am Short Story	4	547	Span Am Short Story	4	3
(C)	555	Structure Span Lang	4	(absorbed into 512)			
(A)	556	Stylistics & Lit Th	4	556	Stylistics & Lit Theory	4	3
(A)	562	Medieval Epic & Rom	4	562	Medieval Epic & Romance	4	3
(C)	565	Pre-Renaiss Span Lit	4	(absorbed into 569)			
(A)	568	Cervantes	4	568	Cervantes	4	3
(C)	569	Picaresque Novel	4	569	Picaresque Literature	4	3
(C)	565	Pre-Renaiss Span	4	(absorbed into 569)			
(A)	570	Grad Reading Spanish	1-4	570	Grad Reading Spanish	1-4	1-3
(A)	571	Sen Gulian Age Drama	4	571	Golden Age Drama-Poetry	4	3
(A)	573	Sen 19th Cent Novel	4	573	Sen 19th Cent Lit	4	3
(A)	575	Sen Generation 1898	4	575	Sen Generation 1898	4	3
(A)	577	Contemp Spanish Poet	4	577	Contemp Spanish Poetry	4	3
(F)	580	Span Am Historic Lit	4	(deleted)			
(A)	581	Spanish Amer Theater	4	581	Spanish Amer Theater	4	3
(A)	582	Modernism Span Amer	4	582	Modernism Span Amer	4	3
(A)	583	Spanish Amer Novel	4	583	Spanish Amer Novel	4	3
(E)	584	Spanish Amer Essay	4	(deleted)			
(A)	585	Contemp Span Essay	4	(deleted)			
(A)	586	Contemp Spanish Civ	4	586	Contemp Spanish Civil	4	3
(A)	587	Contemp Sp Am Civil	4	587	Contemp Sp Am Civil	4	3
(C)	588	Hispanic Lit Authers	4	(deleted)			
(A)	589	Hispanic Lit Types	4	588	Topics Hispan Lit-Cult	4	3
(C)	597	Bibliography & Res	2	(deleted)			
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9
Sociology (SOC)							
(A)	101	Principles Sociology	4	101	Principles Sociology	4	3
(A)	202	Social Problems	4	202	Social Problems	4	3
(A)	210	Social of Religion	4	210	Social of Religion	4	3
(C)	432	Primitive Religion	4	432	Primitive Religion	4	3
(A)	231	Cult Anthropology	4	231	Cult Anthropology	4	3
(A)	300	Topics in Sociology	1-4	300	Topics in Sociology	1-4	1-3
(A)	301	Social Psychology	4	301	Social Psychology	4	3
(A)	302	Classical Soc Theory	4	302	Classical Soc Theory	4	3
(A)	303	Contemp Socio Theory	4	303	Contemp Socio Theory	4	3
(A)	311	The Community	4	311	Community-Urban Soc	4	3
(C)	413	Urban Sociology	4	413	Urban Sociology	4	3
(A)	312	Population & Society	4	312	Population & Society	4	3
(A)	314	Pop Music & Society	4	314	Pop Music & Society	4	3
(C)	315	American Society	4	315	American Society	4	3
(C)	316	Minority Groups	4	316	Minority Groups	4	3
(C)	317	Social Inequality	4	317	Soc Strat-Poverty	4	3
(C)	403	Sociology of Poverty	4	(deleted)			
(C)	318	Social Organization	4	318	Social Organization	4	3
(C)	331	Contemp Cultures	4	331	Contemp Cultures	4	3
(A)	332	Archaeology	4	332	Archaeology	4	2
(C)	334	Anthr-Cont Human Pr	4	334	Anthr-Cont Human Pr	4	3
(C)	335	Medical Anthropology	4	335	Medical Anthropology	4	3
(C)	341	Juvenile Delinquency	4	341	Juvenile Delinquency	4	3
(A)	342	Deviance-Social Ctrl	4	342	Deviance-Social Ctrl	4	3
(A)	344	Deviant Sexual Behav	4	344	Deviant Sexual Behav	4	3
(A)	352	Collective Behavior	4	352	Collective Behavior	4	3
(A)	361	The Family	4	361	The Family	4	3
(A)	369	Intro Statistics	4	369	Intro Statistics	4	3
(A)	370	Intro Methodology	4	370	Intro Methodology	4	3
(A)	371	Intr Research Design	4	371	Intr Research Design	4	2
(A)	395	Wkshp Current Topics	1-5	395	Wkshp Current Topics	1-5	1-4
(C)	403	Sociology of Poverty	4	(absorbed into 317)			
(A)	404	Social Gerontology	4	404	Social Gerontology	4	3
(C)	413	Urban Sociology	4	(absorbed into 311)			
(A)	414	Society & Environment	4	414	Society & Environment	4	3
(A)	415	Industrial Sociology	4	415	Industrial Sociology	4	3
(A)	416	Political Sociology	4	416	Political Sociology	4	3
(A)	417	Sociology of Sport	4	417	Sociology of Sport	4	3
(A)	418	Social Change	4	418	Soc Change-Develop	4	3
(C)	419	Probl Develop Areas	4	(absorbed into 317)			

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(C)	432	Primitive Religion	4	(absorbed into 210)			
(A)	441	Criminology	4	441	Criminology	4	3
(A)	442	Corrections	4	442	Corrections	4	3
(A)	443	Whit Collar-Org Crime	4	443	Whit Collar-Org Crime	4	2
(A)	449	Field Wk-Corrections	4	449	Field Wk-Corrections	4	2
(A)	453	Ethnological Theory	4	453	Ethnological Theory	4	3
(A)	460	Family and Sex Roles	4	460	Family and Sex Roles	4	3
(A)	463	Leisure-Wk Retirement	4	463	Leisure-Wk Retirement	4	3
(A)	490	Readings & Research	1-16	470	Readings & Research	1-16	1-9
(A)	480	Senior Seminar	4	480	Senior Seminar	4	3
(A)	501	Classical Soc Theory	4	501	Classical Soc Theory	4	3
(A)	502	Modern Soc Theory	4	502	Modern Soc Theory	4	3
(A)	516	Soc Stratification	4	516	Soc Stratification	4	3
(A)	517	Human Ecology	4	517	Human Ecology	4	2
(A)	518	Fertility & Fam Plan	4	518	Fertility & Fam Plan	4	3
(A)	521	Social Organization	4	521	Social Organization	4	3
(A)	523	Organizations	4	523	Organizations	4	3
(A)	525	Demography	4	525	Demography	4	3
(A)	526	Migration	4	526	Migration	4	3
(A)	528	Race & Ethnic Relat	4	528	Race & Ethnic Relat	4	3
(A)	530	Social Change	4	530	Social Change	4	3
(A)	532	Social Movements	4	532	Social Movements	4	3
(A)	535	Proseminar Soc Psych	4	535	Proseminar Soc Psych	4	3
(A)	537	Political Sociology	4	537	Political Sociology	4	3
(C)	630	Sociology of Power	4	(absorbed into 537)			
(A)	539	Sociology of Education	4	540	Sociology of Educ	4	3
(C)	641	Concept Formation	4	(absorbed into 607)			
(A)	542	Adv Social Psych	4	542	Adv Social Psych	4	3
(A)	543	Small Groups	4	543	Small Groups	4	2
(A)	544	Deviant Behavior	4	544	Deviant Behavior	4	3
(A)	550	Socialization	4	550	Socialization	4	2
(A)	561	Corrections	4	561	Corrections	4	3
(A)	562	Criminal Law	4	562	Criminal Law	4	3
(A)	568	Intermed Statistics	4	568	Intermed Statistics	4	3
(A)	569	Intermed Methodology	4	569	Intermed Methodology	4	3
(A)	570	Reading in Sociology	1-4	570	Reading in Sociology	1-4	1-3
(A)	580	Graduate Seminar	1-4	580	Graduate Seminar	1-4	1-3
(A)	581	Sem American Studies	5	581	Sem American Studies	5	3
(A)	582	Family Theory-Research	4	582	Family Theory-Research	4	3
(A)	589	Internship	1-8	589	Internship	1-8	1-3
(A)	590	Tch Intro Sociology	2	590	Tch Intro Sociology	2	1
(A)	597	Research Design	1	597	Research Design	1	1
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	1-9
(A)	606	Advanced Methodology	4	606	Advanced Methodology	4	3
(A)	607	Theory Construction	4	607	Theory Construction	4	3
(C)	641	Concept Formation	4	(absorbed into 607)			
(A)	612	Community	4	612	Community	4	3
(C)	613	Urban Development	4	(absorbed into 623)			
(A)	623	Soc-Demog Growth-Dev	4	623	Soc-Demog Growth-Dev	4	3
(A)	624	Demographic Methods	4	624	Demographic Methods	4	3
(A)	625	Sem Demography-Ecol	4	625	Sem Demography-Ecol	4	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	423	Int CDIS for Class Teach	4	(471)	Int Cj's Class Teach	4	2
(A)	424	Diag & Assess of CDIS	5	411	Diag & Assess of CDIS	4	2
(A)	426	First Prac in CDIS	3	421	First Prac in CDIS	2	2
(A)	427	Second Prac in CDIS	3	431	Second Prac in CDIS	2	2
(A)	433	Intro Rehab Aud	4	(461)	Intro Rehab Aud	4	4
(A)	434	Teach Begin Sp to Deaf	3	434	Teach Begin Sp to Deaf	3	3
(A)	435	Org Man Schl S-L-H Prg	4	(481)	Org Man Schl S-L-H Prg	3	3
(A)	436	Teach Adv Sp to Deaf	3	436	Teach Adv Sp to Deaf	2	2
(A)	438	Lang Prin Prac Sp Ed Pro	5	451	Lang Prin Prac Sp Ed Pro	4	4
(A)	(433)	Intro Rehab Aud	4	461	Intro Rehab Aud	4	4
(A)	490	Independent Study	1-4	470	Independent Study	1-3	3
(A)	(423)	Int CDIS for Class Teach	4	471	Int CDIS Class Teach	3	3
(A)	(435)	Org Man Schl S-L-H Prg	4	481	Org Man Schl S-L-H Prg	3	3
		(replaces EDCD 331, 332)		492	Student Teaching	1-10	1-10
		(replaces EDCD 381, 382)		497	Student Teaching	1-10	1-10

(A)	(556)	Speech Science	4	501	Speech Science	3	3
(A)	540	Adm Sup Ther Pro Ed Set	3	502	Adm Sup Ther Pro Ed Set	2	2
(A)	541	Adv Studies Stuttering	4	(541)	Adv Studies Stuttering	3	3
(A)	543	Med Aspects Sp & Hear	4	503	Med Aspects Sp & Hear	3	3
(A)	544	Practicum in Audiology	1-4	504	Practicum in Audiology	1-3	3
(A)	545	Practicum in Spch Path	1-4	505	Practicum in Spch-Lang Path	1-3	3
(C)	546	Adv Aud Methods I	4	(515)	Diag Aud I	3	3
(C)	547	Path of Hear Mech	4	(525)	Diag Aud II	3	3
(C)	548	Adv Stud Rehab Aud	4	(535)	Diag Aud III	3	3
(C)	549	Child Audiology	4	(545)	Auditory Rehab & Hear Aids I	3	3
(C)	(554)	Adv Aud Methods III	4	(555)	Auditory Rehab & Hear Aids II	3	3
(A)	550	Adv Stud Articulation	4	511	Adv Stud Articulation	2	2
		(see 546 above)		515	Diag Aud I	3	3
(A)	551	Adv Oral Facial	4	(551)	Adv Oral Facial	3	3
(A)	552	Adv Aphasia & Neuro	4	(531)	Adv Aphasia & Neuro	3	3
(A)	553	Adv Voice Dis	4	521	Adv Stud Voice Disorders	3	3
		(see 546 above)		525	Diag Aud II	3	3
(A)	(552)	Adv Aphasia & Neuro	4	531	Adv Aphasia & Neuro	3	3
		(see 546 above)		535	Diag Aud III	3	3
(A)	(541)	Adv Studies Stuttering	4	541	Adv Studies Stuttering	3	3
		(see 546 above)		545	Auditory Rehab & Hear Aids I	3	3
(A)	(551)	Adv Oral Facial	4	551	Adv Oral Facial	3	3
(A)	554	Adv Aud Methods II	4	(absorbed into 515-555)			
(A)	556	Speech Science	4	(501)	Speech Science	3	3
		(see 546 above)		555	Auditory Rehab & Hear Aids II	3	3
(A)	589	Internship	1-16	589	Internship	1-9	9
(A)	595	Workshop-Current Topics	1-4	595	Workshop-Current Topics	1-3	3
(A)	597	Res Methods in CDIS	4	597	Research Methods in CDIS	3	3
(A)	598	Research Prob. in CDIS	1-5	598	Research Prob in CDIS	1-3	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	9
(A)	640	Adv Res Instrumentation	4	(661)	Adv Res Instrumentation	3	3
(A)	641	Neurophy Aud System	4	(671)	Neurophy Aud System	3	3
(A)	642	Sem in Psychoacoustics	4	(681)	Sem in Psychoacoustics	3	3
(A)	643	Sem in Physiol Acoustics	4	(691)	Sem in Physiol Acoustics	3	3
(A)	644	Seminar in Audiology	4	601	Topics in Audiology	3	3
(C)	(653)	Topics in Speech Path	4	601	Topics in CDIS	3	3
(A)	650	Seminar in Aphasia	4	(631)	Adv Stud in Aphasia	3	3
(A)	(658)	Sem in Language Devel	4	611	Adv Stud Language Devel	3	3
(A)	651	Sem in Language Dis	4	621	Adv Stud Language Disorders	3	3
(C)	652	Adv Diag Assess Com Dis	4	(absorbed into 601)			
(C)	653	Topics in Speech Path	4	631	Adv Stud in Aphasia	3	3
(A)	(650)	Seminar in Aphasia	4	(651)	Physiological Phonetics	3	3
(C)	654	Physiological Phonetics	4	641	Acoustic Phonetics	3	3
(C)	656	Acoustic Phonetics	4	651	Physiological Phonetics	3	3
(C)	(654)	Physiological Phonetics	4	(deleted)			
(E)	657	Inter Comm Guid Tech CDIS 4		661	Adv Res Instrumentation	3	3
(A)	(640)	Adv Res Instrumentation	4	671	Neurophy Aud System	3	3
(A)	(641)	Neurophy Aud System	4	681	Sem in Psychoacoustics	3	3
(A)	(642)	Sem in Psychoacoustics	4	691	Sem in Physiol Acoustics	3	3
(A)	689	Internship	1-16	689	Internship	1-5	5
(A)	(643)	Sem in Physiol Acoustics	4	691	Sem in Physiol Acoustics	3	3
(A)	692	Teaching CDIS	1	692	Teaching CDIS	1	1
(A)	698	Research Prob in CDIS	1-5	698	Research Problems in CDIS	1-3	3
(A)	799	Dissertation Research	1-16	799	Dissertation Research	1-16	1-16

Interpersonal and Public Communication (IPCO)

(A)	110	Forensic Activities	1	110	Forensic Activities	1	1
(A)	203	Small Group Commun	4	203	Small Group Commun	3	3
(A)	204	Argumentation	4	204	Argumentation	3	3
(A)	205	Public Speaking	4	205	Public Speaking	3	3
(A)	303	Persuasive Communication	4	303	Persuasive Communication	3	3
(A)	304	Leadership Group Commun	4	304	Leadership Group Commun	3	3
(A)	305	Human Communication	4	305	Human Communication	3	3
(A)	306	Interpersonal Commun	4	306	Interpersonal Commun	3	3
(A)	307	Spch Comm in Orgns	4	307	Spch Comm in Orgns	3	3
(A)	310	Forensic Activities	1	310	Forensic Activities	1	1
(A)	311	Contemp Minority Voices	4	311	Contemp Minority Voices	3	3
(A)	395	Workshop Current Topics	1-5	395	Workshop Current Topics	1-3	3
(A)	402	Crit. Analysis Public Comm	4	402	Crit. Analysis Public Comm	3	3
(E)	405	Semantic-Spch Commun	4	(deleted)			
(A)	406	Topics in Communication	4	406	Topics in Communication	3	3
(E)	410	Communication and Aging	4	(deleted)			
(A)	489	Communication Internship	1-16	489	Communication Internship	1-10	1-10
(A)	490	Problems in Commun	1-5	490	Problems in Commun	1-3	3
(A)	520	Rhetorical Criticism	4	520	Rhetorical Criticism	3	3
(A)	521	Rhet Theory: Greece	4	521	Rhet Theory: Classical	3	3
(A)	522	Dimensions Rhet Theory	4	522	Dimensions Rhet Theory	3	3
(C)	526	Argumentation Theory	4	(deleted)			
(B)	530	Public Comm: America	4	530	Historical Public Commun	3	3
(C)	531	Public Comm: Europe	4	(deleted)			
(A)	589	Communication Internship	1-16	589	Communication Internship	1-10	1-10
(E)	590	Teaching IPCO	4	(deleted)			
(A)	595	Workshop Topics in IPCO	1-4	595	Workshop Topics in IPCO	1-3	3
(A)	597	Research Methods	4	597	Research Methods	3	3
(A)	598	Research Probs in IPCO	1-5	598	Research Probs in IPCO	1-3	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	9
(A)	621	Rhet Theory: Neoclass	4	621	Rhet Theory: Neo-Class	3	3
(A)	622	Functional Communication	4	622	Communicative Competency	3	3
(A)	623	Human Communication	4	623	Human Communication	3	3
(A)	624	Interpersonal Commun	4	624	Interpersonal Commun	3	3
(A)	625	Theories Group Commun	4	625	Theories Group Commun	3	3
(A)	628	Non-Models Orgn Develop	4	628	Organizational Commun	3	3
(A)	631	Contemporary Public Comm	4	631	Contemporary Public Comm	3	3
(A)	632	Audience Analysis	4	632	Audience Analysis	3	3
(A)	689	Internship	1-16	689	Internship	1-10	1-10
(A)	691	Teaching Communication	4	691	Teaching Communication	3	3
(A)	698	Research Problems IPCO	1-5	698	Research Problems IPCO	1-3	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(E)	721	Rhet Theory: Roman	4	(deleted)			3
(A)	725	Group Communication	4	725	Research Group Commun	3	3
(A)	726	Topics Argum and Debate	4	726	Topics Argum and Debate	3	3
(A)	727	Topics in Rhetoric	4	727	Topics in Rhetoric	3	3
(A)	728	Organizational Commun	4	728	Research Org Commun	3	3
(A)	729	Topics in Communication	4	729	Topics in Communication	3	3
(E)	731	Pub Comm: Class-Medieval	4	(deleted)			3
(A)	732	Persuasion Movements	4	732	Persuasion in Movements	3	3
(A)	733	Topics in Public Comm	4	733	Topics in Public Comm	3	3
(A)	735	Topics in Persuasion	4	735	Topics in Persuasion	3	3
(A)	799	Dissertation Research	1-16	799	Dissertation Research	1-16	1-16

Radio-Television-Film (RTVF)

(A)	255	Intro to Broadcasting	4	255	Intro to Broadcasting	3	3
(A)	260	Radio & TV Broadcasting	4	260	Broadcasting and Society	3	3
(A)	261	Understanding Movies	4	261	Understanding Movies	3	3
(B)	262	Intro to Brcdst Annc.	4	262	Radio Wr.. Annc. & Prod.	4	4
(B)	(461)	Radio Writing & Prod.	4	263	Television Prog. & Prod.	4	4
(B)	263	Intro. TV Prog. Prod.	4	263	Television Prog. & Prod.	4	4
(B)	(465)	Patt. Prog. in R-TV	4	(absorbed into 263)			
(A)	264	8mm Film Making	4	264	8mm Film Making	3	3
(A)	360	Proced. of Aud. Msment.	4	360	Proced. of Aud. Msment.	3	3
(B)	361	Radio Writing & Prod.	4	(absorbed into 262)			
(A)	364	Prod. & Dir. for TV	4	364	Prod. & Dir. for TV	3	3
(A)	365	Broadcasting History	4	365	Broadcasting History	3	3
(A)	366	Process & Effects	4	366	Process & Effects	3	3
(A)	368	Radio Workshop	2	368	Radio Workshop	1	1
(A)	395	Workshop	1-5	395	Workshop	1-3	3
(A)	460	Free. & Respon. Brcdst.	4	460	Regulation of Broadcasting	3	3
(A)	464	16mm Film Making	4	464	16mm Film Making	3	3
(B)	465	Patt. Prog. in R-TV	4	(absorbed into 263)			
(A)	466	History & Crit. of Film	4	466	History & Crit. of Film	3	3
(A)	468	TV Workshop	2	468	TV Workshop	1	1
(A)	469	Seminar: Cont. Aspects	4	469	Seminar: Cont. Aspects	3	3
(A)	489	Internship	1-16	489	Internship	1-6	6
(A)	490	Problems	1-5	490	Problems	1-3	3
(A)	500	Hist. American Brcdst.	4	500	Hist. American Brcdst.	3	3
(A)	501	Reg. American Brcdst.	4	501	Reg. American Brcdst.	3	3
(A)	502	Educational Broadcasting	4	502	Educational Broadcasting	3	3
(A)	503	Hist. & Crit. of Film	4	503	Hist. & Crit. of Film	3	3
(A)	504	Prod. & Direct. for TV	4	504	Prod. & Direct. for TV	3	3
(A)	505	Prod. & Direct. Film	4	505	Prod. & Direct. Film	3	3
(A)	506	Writing for TV-Film	4	506	Writing for TV-Film	3	3
(A)	570	Readings in RTVF	1-4	570	Readings in RTVF	1-3	3
(A)	580	Graduate Seminar RTVF	1-4	580	Graduate Seminar RTVF	1-3	3
(A)	589	Internship	1-16	589	Internship	1-6	6
(A)	594	Qualitative Methods	4	594	Qualitative Methods	3	3
(A)	595	Workshop Cur. Tpcs. RTVF	1-4	595	Workshop Cur. Tpcs. RTVF	1-3	3
(B)	596	Intro to Mass Comm Lit	4	596	Intro to Mass Comm Research	3	3
(B)	597	Research Methods in RTVF	4	597	Research Prob. in RTVF	1-3	3
(A)	598	Research Prob. in RTVF	1-5	598	Research Prob. in RTVF	1-3	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	9
(C)	600	Comm. Sys. Brcdst.	4	600	Internat'l. & Comp. Sys. Brcdst	3	3
(C)	601	International Brcdst.	4	(deleted)			
(A)	602	Program. Radio & TV	4	602	Program. Radio & TV	3	3
(A)	603	Sem. in Mass Comm. Theory	4	603	Seminar in Mass Comm Theory	3	3
(A)	604	Sem. in Descriptive Methods	4	604	Sem. in Descriptive Methods	3	3
(A)	607	Sem. in Mass Comm Law	4	607	Sem. in Mass Comm Law	3	3
(A)	608	Sem. in Hist. Mass Comm	4	608	Sem. in Hist. Mass Comm	3	3
(A)	609	Crit. Anal. Prog.	4	609	Crit. Anal. Prog.	3	3
(A)	670	Readings in RTVF	1-4	670	Readings in RTVF	1-3	3
(A)	680	Grad. Seminar RTVF	1-4	680	Grad. Seminar RTVF	1-3	3
(A)	680	Internship	1-16	680	Internship	1-6	6
(A)	693	Tch. Radio-TV-Film	1	693	Tch. Radio-TV-Film	1	1
(A)	698	Research Prob. in RTVF	1-5	698	Research Prob. in RTVF	1-3	3
(A)	700	Station Management	4	700	Station Management	3	3
(A)	703	Instructional TV	4	703	Corporate & Instructional Video	3	3
(C)	706	Radio-TV-Film Mass Soc.	4	(deleted)			
(A)	799	Dissertation Research	1-16	799	Dissertation Research	1-16	1-16

Speech (SPCH)

(A)	102	Principles of Speech	4	102	Principles of Speech	3	3
(A)	351	Adm Co-Curr Spch Pr	4	351	Adm Co-Curr Spch Pr	3	3
(A)	697	Empirical Res Design	4	697	Empirical Res Design	3	3

Theatre (THEA)

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	566	Scene Design & Lighting	4	566	Scene Design	4	3
(A)	567	Seminar in Directing	4	567	Seminar in Directing	4	3
(A)	568	Theatre Org. & Manage.	4	568	Thea. Org. & Management	4	3
(A)	569	Theatre Communication	4	569	Theatre Communication	4	3
(A)	589	Practicum in Theatre	1-16	589	Practicum in Theatre	1-12	3
(A)	591	Teaching Oral Interp.	4	591	Teaching Oral Interp.	4	3
(A)	595	Wsp. on Current Topics	1-4	595	Wsp. on Current Topics	1-3	3
(A)	597	Research Methods-Thea	4	597	Research Methods-Thea	4	3
(A)	598	Research Prob. in Thea	1-5	598	Research Prob. in Thea	1-2	3
(A)	599	Thesis Research	1-9	599	Thesis Research	1-9	3
(B)	660	Staging Classic Play	4	660	Staging Prob.-Cont. & Period	4	3
(B)	661	Staging Shakespeare	4				
(B)	662	Staging Musical Play	4				
(A)	665	History of Amer.Thea.	5	665	History of Amer.Thea.	5	3
(A)	671	Seminar in Thea.Cost.	4	671	Seminar in Costume Design	4	3
(A)	672	Seminar in Lighting	4	672	Seminar in Lighting Design	4	3
(A)	673	Hist.& Prin.-18th-Pres.	4	673	Hist.& Prin./18th-Present	4	3
(A)	674	Hist.& Prin.-18th-Pres.	4	674	Hist.& Prin./18th-Present	4	3
(E)	675	Prin. of Dram.Theory	4				
(A)	677	Seminar in Scene Design	4	677	Seminar in Scene Design	4	3
(A)	678	Prob. of Form/Thea-Dr.	4	678	Dramatic Genres:Trag.,Com.	4	3
(A)	679	Playwriting	4	679	Playwriting	4	3
(A)	689	Internship in Theatre	1-16	689	Internship in Theatre	1-12	3
(A)	694	Pract.Thea. Asst. Act.	1	694	Teaching Theatre	1	3
(A)	698	Res. Prob. in Thea.	1-5	698	Res. Prob. in Thea.	1-2	3
(A)	760	Topics-Dir. & Stag. Styles	4	760	Topics-Dir. & Stag.Styles	4	3
(A)	761	Topics-Dir. Res. in Thea.	4	761	Topics-Dir. Res. in Thea.	4	3
(A)	762	Topics-Dir. & Stag.Theory	4	762	Topics-Dir. & Stag.Theory	4	3
(A)	763	Topics-Technical Thea	4	763	Topics in Technical Theatre	4	3
(B)	765	Hist. of Class.Thea.	4				
(B)	766	Hist. of Eliz.Thea.	4	766	Topics-Thea.Hist./Class-16th	4	3
(A)	767	Topics-Cur.Thea.Hist.	4	767	Topics-Thea.Hist./17th-19th	4	3
(A)	768	Topics-Mod.Thea.Hist.	4	768	Topics-Mod.Thea.Hist.	4	3
(A)	774	Topics-Dram.Theo.&Crit.	1-5	774	Topics-Dram.Theo. & Crit.	1-3	3
(A)	775	Read.-Class. & Neo-Class.	4	775	Readings-Class. & Neo-Class.	4	3
(A)	776	Read.-16th-17th Cent.	4	776	Read.-16th & 17th Cent.	4	3
(A)	777	Read.-18th-19th Cent.	4	777	Read.-18th & 19th Cent.	4	3
(A)	778	Read.-20th Cent.Thea.	4	778	Read. in 20th Cent.Thea.Lit.	4	3
(A)	799	Dissertation Res.	1-16	799	Dissertation Research	1-16	3

Applied Statistics (STAT)

(A)	200	Using Statistics	4	200	Using Statistics	4	3
(A)	211	Elem Statistic Meth I	4	211	Elem Statistic Meth I	4	3
(A)	212	Elem Statistic Meth II	4	212	Elem Statistic Meth II	4	3
(B)	302	Stochastic Systems	4		(Deleted)		
(C)	304	Intro to Times Series	2		(Absorbed in 312)		
(C)	306	Intro to Sample Design	2		(Absorbed in 312)		
(C)	308	Intro to Design Theory	2		(Absorbed in 312)		
(A)	311	Regression and Design	4	311	Regression and Design	4	3
(C)	312	Nonparametric Statistics	2	312	Topics in Applied Statistics	2	3
		(combines 304, 306, 308)					
(A)	315	Intro to Statis Inference	4	315	Intro to Statis Inference	4	3
(A)	402	Regression Analysis	4	402	Regression Analysis	4	3
(A)	404	Time Series Analysis	4	404	Time Series Analysis	4	3
(A)	406	Sample Design	4	406	Sample Design	4	3
(E)	408	Bayesian Design Theory	4		(Deleted)		
(A)	410	Experimental Design	4	410	Experimental Design	4	3
(A)	412	Appl Nonpar Statist	4	412	Appl Nonpar Statist	4	3
(A)	414	Statis Quality Control	4	414	Statis Quality Control	4	3
(A)	491	Student-Statistics	1-5	491	Student-Statistics	1-5	3
(A)	510	Statistical Methods	4	510	Statistical Methods	4	3
(A)	511	Regression and Design	4	511	Regression and Design	4	3
(B)	512	Probability and Stat	4		(Deleted)		
(A)	530	Applied Multivariate	4	530	Applied Multivariate	4	3
(A)	531	Linear Models	4	531	Linear Models	4	3
(A)	550	Statistical Consulting	1-4	550	Statistical Consulting	1-3	3
(A)	570	Readings in Statis	1-4	570	Readings in Statis	1-3	3
(A)	597	Research Methods	4	597	Research Methods	4	3
(A)	598	Directed Research	1-4	598	Directed Research	1-3	3
(A)	599	Thesis Research	1-4	599	Thesis Research	1-6	3

Operations Research (OPRE)

(A)	380	Intro to Oper Research	4	380	Intro to Oper Research	4	3
(A)	480	Linear and Integer Prog	4	480	Linear and Integer Prog	4	3
(A)	482	Oper Simul Stoch Sys	4	482	Oper Simul Stoch Sys	4	3
(A)	485	Intro to Stoch Models	4	485	Intro to Stoch Models	4	3
(A)	487	Network Theory/Spe Top	4	487	Network Theory/Spe Top	4	3
(A)	488	Theory of Invent Syst	4	488	Theory of Invent Syst	4	3
(A)	489	Appl Nonlin/Dynam Prog	4	489	Appl Nonlin/Dynam Prog	4	3
(A)	491	Studies in Oper Res	1-5	491	Studies in Oper Res	1-3	3

Technology, School of

Aerotechnology (AERT)

(C)	341	Flight Inst. I	2	342	Flight Inst. I and II	2	3
(C)	342	Flight Inst. II	2	343	Flight Inst. III	1	3
(A)	343	Flight Inst. III	2	344	Commercial G.S.	1	3
(A)	344	Commercial G.S.	3	345	Commercial Flt. Inst. I	1	3
(A)	345	Commercial Flt.	3	346	Commercial Flt. Inst. II	2	3
(A)	401	Flight Instruction	3	401	Aviation Inst. G.S.	2	3
(A)	402	Instrument G.S.	4	402	Instrument G.S.	4	3
(A)	403	Instrument Flt.	2	403	Instrument Flt. Inst.	1	3
(A)	490	Problems in AERT	1-5	490	Problems in AERT	1-3	3

Construction Technology (CONS)

(A)	235	Construction Tech	4	235	Intro to Construction	4	3
(A)	306	Light Bldg. Const.	4	306	Light Oldg Const 1	4	3
(A)	307	Land Plan & Develop	4	307	Land Plan & Develop	4	3
(A)	318	Surveying Practice	5	318	Construction Surveying	5	3
(A)	335	Comm Indus Const	4	335	Comm & Indus Const	4	3
(A)	337	Heat-Ventil-Air Systems	4	337	Heat-Ventil & Air Systems	4	3
(A)	406	Light Bldg Const.	4	406	Light Bldg Construction II	4	3
(C)	407	Civil Construction	4		(Absorbed into 435)		
(A)	425	Construction Tech	4	425	Intro to Construction	4	3
(C)	435	Comm Indus Construction	4	435	Comm. Ind & Civil Cons	4	3
(A)	437	Construction Equipment	4	437	Construction Equipment	4	3
(A)	439	Estimating-Cost Est	4	439	Estimating-Cost Est	4	3
(A)	440	Constructing Contracting	4	440	Constructing Contracting	4	3
(A)	490	Problems in Construction	1-5	490	Problems in Construction	1-3	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.

Design Technology (DESN)

(A)	104	Desn & Eng Graphics I	4	104	Desn & Eng Graphics	4	3
(A)	204	Desn & Eng Graphics II	4	204	Desn & Eng Graphics II	4	3
(A)	243	Strength of Materials	5	243	Strength of Materials	5	3
(A)	301	Architectural Graphics I	5	301	Architectural Graphics I	5	3
(A)	304	Eng. Graphics-Desn I	4	304	Mechanical Design	4	3
(A)	305	Technical Illustration	4	305	Technical Illustration	4	3
(A)	314	Desn & Eng Graphics I	4	314	Desn & Eng Graphics I	4	3
(A)	336	Struct. Desn & Cons	5	336	Structural Design	5	3
(A)	6404	Computer Graph in Desn	4	6404	Computer Aided Design	4	3
(A)	6436	Desn & Eng Graphics II	4	6436	Desn & Eng Graphics II	4	3
(A)	6438	Plan. & Desn of Ind. Fac.	4	6438	Plan. & Desn of Ind. Fac.	4	3
(A)	6450	Architectural Graphics II	4	6450	Architectural Graphics II	4	3
(A)	6452	Design in Industry	4	6452	Design in Industry	4	3
(A)	6455	Engineering Graphics	4	6455	Engineering Design	4	3
(A)	490	Problems in Desn Tech.	1-5	490	Problems in Desn Tech.	1-3	3

Electronic Technology (ET)

(A)	244	Communicat Circuits	5	244	Communication Circuits	5	3
(A)	245	Communication Systems	3	245	Communication Systems	3	3
(A)	291	EPIC-Cybernetics	4	291	EPIC-Cybernetics	4	3
(A)	300	Elec Machinery-Ctrls	4	300	Electrical Machinery-Ctrls	4	3
(A)	347	Electricity	5	347	Electricity	5	3
(A)	348	Electronics	5	348	Electronics	5	3
(A)	357	Electric Power Trans	4	357	Electric Power Trans	4	3
(A)	358	Digital Electronics	5	358	Digital Electronics	5	3
(A)	6441	Instrumentation	4	6441	Instrumentation	4	3
(A)	6442	Digital Comput Analys	5	6442	Digital Comput Analys	5	3
(A)	6443	Solid State Devices	4	6443	Solid State Devices	4	3
(A)	6453	Digital Comput Ctrl	4	6453	Digital Comput Ctrl	4	3
(A)	490	Problems in Electronics	1-5	490	Problems in Electronics	1-3	3
(A)	491	EPIC-Cybernetics	4	491	EPIC-Cybernetics	4	3

Industrial Environment Technology (ENVR)

(A)	6421	Indus Pollution Ctrl	4	6421	Indus Pollution Ctrl	4	3
(A)	490	Problems in ENVT Tech	1-5	490	Problems in ENVT Tech	1-5	3

Industrial Education (IE)

(C)	252	Elements of Instruction	4	252	Elements of Instruction	4	3
(C)	(288)	Field Experience	2		(288 absorbed into 252 & 352)		
(E)	316	CATE in Elem School	4		(deleted)		
(C)	352	Instructional Scope	4	352	Instructional Scope & Seq.	4	3
(C)	(288)	Field Experience	2				
(E)	428	Dev. of Training Prgrs	4	428	Dev. of Training Prgrs	4	3
(C)	447	Teaching Manufacturing	2	447	Teaching Technology Systems	2	3
(C)	448	Teaching Construction	2				
(A)	449	Org. & Administration	4	449	Org. & Administration	4	3
(A)	6462	CATE in Elem. Schools	4	6462	CATE in Elem. Schools	4	3
(A)	6470	Coordinating Co-op Prgs	4	6470	Coordinating Co-op Prgs	4	3
(A)	490	Problems in IE	1-5	490	Problems in IE	1-3	3
(A)	492	Student Teaching	4	492	Student Teaching	4	1-10
(A)	497	Student Teaching	4	497	Student Teaching	4	1-10

Manufacturing Technology (MFG)

(A)	113	Materials Process I	4	113	Non-Metallic Mtl & Process	4	3
(A)	114	Materials Process II	4	114	Metallic Mtl & Process	4	3
(A)	214	MFG Processes	4	214	Manufacturing Processes	4	3
(A)	311	Machina Tool Process	5	311	Machine Tool Processes I	5	3
(E)	321	Casting Processes	4		(deleted)		
(A)	323	Wood Processing Tech	5	323	Wood Processing Tech	5	3

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	646D	Photography	4	646D	Photography	4	3
(A)	465	Photography in Comm & Ind	4	465	Photo in Comm & Industry	4	3
(A)	466	Projected Communication	4	466	Projected Communication	4	3
(A)	467	VCT Synthesis I	4	467	VCT Synthesis	4	3
(A)	468	Video Tape Recording/VCT	4	468	Video Tape Recording in VCT	4	3
(A)	482	Photography III	4	482	Photography III	4	3
(A)	49D	Problems in VCT	1-5	49D	Problems in VCT	1-5	1-3

Women's Studies (WS)

(A)	200	Intro to Women's Stu	4	200	Intro to Women's Studies	4	3
(A)	300	Topics in Women's Stu	4	300	Topics in Women's Studies	4	3
(A)	400	Sr Sem in Women's Stu	4	470	Sr Sem in Women's Studies	4	3
(A)	490	Indep Study in W. Stu	1-4	470	Indep Study in Women's Studies	1-4	1-3

Ethnic Studies (ETHN)

(A)	101	Intro Ethnic Studies	4	101	Intro Ethnic Studies	4	3
(A)	110	Intro Latinos in U.S.	4	110	Intro Latinos in U.S.	4	3
(A)	120	Origins Chicano Cult	4	308	Origins Chicano Cult	4	2
(A)	205	European Ethnic Amer	4	205	European Ethnic Amer	4	2
(A)	210	Chicano in Amer Socy	4	210	Chicano in Amer Socy	4	3
(A)	215	Hist Mexican American	4	215	Hist Mexican American	4	3
(A)	220	African Literature	4	220	African Literature	4	3
(A)	300	Topics Ethnic Studies	4	300	Topics Ethnic Studies	4	3
(A)	304	Ethnicity in America	4	304	Ethnicity in America	4	3
(A)	308	Origins Chicano Cult	4	308	Origins Chicano Cult	4	2
(A)	312	W African Lit-Maclem	4	312	W African Lit-Maclem	4	1-3
(A)	395	Wkshp Current Topics	1-5	395	Wkshp Current Topics	1-5	1-3
(A)	410	Mex-Amer Social Thot	4	410	Mex-Amer Social Thot	4	1
(A)	415	Novels Chicanos Achebe	4	415	Novels Chicanos Achebe	4	1-2
(A)	490	Readings Ethnic Stds	1-4	470	Readings Ethnic Stds	1-4	2-8
(A)	480	Seminar Ethnic Stds	4-12	489	Seminar Ethnic Stds	4-12	2-8
(A)	489	Field Study	4-12	489	Field Study	4-12	2-8
(A)	490	Readings Ethnic Stds	1-4	470	Readings Ethnic Stds	1-4	1-2

Latin American Studies (LAS)

(A)	401	Sr Sem Latin Amer Stud	4	401	Sr Sem Latin Amer Studies	4	3
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Graduate Studies (GRS)

(A)	500	Wkshp. Inscr. Higher Ed	2	500	Wkshp. Inscr. Higher Ed.	2	2
(A)	600	Comput Appl High Ed	2		(delete)		

Linguistics (LING)

(A)	310	Intro. to Linguistics	4	310	Intro. to Linguistics	4	3
(A)	490	Special Prob. in Ling.	2-4	490	Special Prob. in Ling.	2-4	2-3

Courses Offered Only at Firelands

Accounting Technology (ACT)

(A)	231	Financial Accounting	4	231	Financial Accounting	4	3
(A)	241	Cost Accounting	4	241	Cost Accounting	4	3
(A)	251	Federal Income Tax	4	251	Federal Income Tax	4	3

Applied Mathematics And Science (AMS)

(A)	100	Developmental Mathematics I	6	100	Developmental Mathematics	6	3
(E)	111	Mathematics-Physics I	6	(deleted)	(deleted)		
(E)	122	Mathematics-Physics II	6	(deleted)	(deleted)		
(E)	123	Mathematics-Physics III	6	(deleted)	(deleted)		

Business Management Technology (BAT)

(A)	101	Real Estate Prin & Prac	3	100	Real Estate Prin & Prac	3	2
(A)	101	Real Estate Law	3	101	Real Estate Law	3	2
(A)	102	Intro to Business Tech	4	102	Intro to Business Tech	4	3
(C)	200	Principles of Management	4	201	Human Resources in Management	4	4
(C)	211	Personnel Management	4	205	Human Relations in Business	3	3
(C)	215	Human Relations in Bus	4				
(A)	213	Production Management	4	203	Production Management	3	3
(A)	234	Marketing	4	204	Marketing	3	3
(C)	205	Human Relations in Bus	4	205	Human Relations in Business	3	3
(E)	236	Sys Stds and Work Design	4	(deleted)	(deleted)		
(A)	207	Business Finance	4	207	Business Finance	3	3
(A)	208	Advertising	4	208	Advertising	3	3
(A)	210	Principles of Banking	3	210	Principles of Banking	2	2
(A)	211	Money and Banking	4	211	Money and Banking	3	3
(A)	212	Installment Credit	3	212	Installment Credit	2	2
(A)	213	Real Estate Finance	4	213	Real Estate Finance	3	3
(A)	214	Banking Law	4	214	Banking Law	2	2
(A)	215	Real Estate Appraisal	3	215	Real Estate Appraisal	2	2
(A)	216	Real Estate Finance	3	216	Real Estate Finance	2	2
(A)	217	Real Estate Brokerage	3	217	Real Estate Brokerage	2	2
(A)	218	Spec Topics in Real Est	3	218	Special Topics in Real Est	2	2
(A)	250	Marketing Research	4	250	Marketing Research	4	4
(A)	290	Studies in Business	1-4	290	Studies in Business	1-3	1-3
(A)	291	Field Experience	1-4	291	Field Experience	1-3	1-3

Computer Science Technology (CST)

(A)	100	Comp Logic & Flow Chrtg	1	100	Comp Logic & Flow Chrtg	1	1
(C)	171	Terminal Operations	1	171	Terminal Operations	1	1
(E)	221	Systems & Procedures I	4	221	Systems & Procedures I	1	1
(E)	232	Systems & Procedures II	4	232	Systems & Procedures II	4	4
(E)	231	Tech of RPG Programming	4	231	Tech of RPG Programming	3	3
(E)	232	Systems & Procedures II	4	232	Systems & Procedures II	4	4
(A)	230	Diagnostic Assembler	4	250	Diagnostic Assembler	3	3
(C)	260	Adv Elect Data Proc	4	260	Adv Elect Data Proc	4	4
(E)	291	Student Intern Program	4	291	Student Intern Program	2	2

Design

(C)	201	Mechanical Design I	4	202	Mechanical Design	5	5
(C)	202	Mechanical Design II	4				
(A)	205	Tool Die Jig & Fixt Desn	5	205	Tool Die Jig & Fixture Design	4	4
(A)	210	Fluid Systems	3	210	Fluid Systems	2	2

PRESENT QUARTER COURSE				EQUIVALENT SEMESTER COURSE			
Action Taken	Course #	Descriptive Title	Qtr. Hrs.	Course #	Descriptive Title	Qtr. Hrs.	Sem. Hrs.
(A)	100	Energy Codes and Res	2	100	Energy Codes and Res	2	1
(A)	117	Electricity	5	167	Electricity	5	3
(A)	142	Electronics	5	148	Electronics	5	3
(A)	201	Energy Prod & Cons Sys	4	201	Energy Prod & Cons Systems	4	2
(E)	241	Electricity & Electronics	3	(deleted)	(deleted)		
(A)	244	Communication Circuits	5	244	Communication Circuits	5	3
(A)	245	Communications Systems	3	245	Communications Systems	3	3
(A)	247	Elec Meas & Instrumen	5	247	Elec Meas & Instrumen	5	3
(A)	248	Indust Equip & Ctrls	5	248	Indust Equip & Ctrls	5	3
(A)	249	Digital Elec Comp & Sys	4	249	Digital Elec Comp & Sys	4	3
(A)	290	Exp Stu in Ind Ed & Tech	1-4	290	Exp Stu in Ind Ed & Tech	1-4	1-3

Electronic Technology (ET)

(C)	110	Microbio for Water & Food	5	(211)	Bio & Chem Exam of Water	5	6
(C)	211	Bio Exam of Wtr & Wstwr	5	121	Environmental Regulation	2	2
(E)	122	Environmental Regulation	3	(deleted)	(deleted)		
(E)	141	Inspection Legalities	1	(deleted)	(deleted)		
(A)	160	Contemp Prob in Ecology	5	160	Environmental Sanitation	3	2
(C)	211	Environmental Sanitation	3	160	Environmental Sanitation	2	6
(A)	211	Bio Exam of Wtr & Wstwr	5	211	Bio & Chem Exam of Water	5	6
(A)	222	Water & Wstwr Treatment	6	222	Water & Wastewater Treatment	4	4
(A)	223	Wastewater Treatment	2	223	Wastewater Pkg Treatment	1	1
(A)	225	Env Health & Protection	5	225	Env Health & Protection	3	3
(A)	226	Inst Health & Sanitation	3	226	Inst Health & Sanitation	2	2
(A)	260	Air Pltn Srvnce & Ctrl	5	260	Air Pltn Srvnce & Ctrl	3	3
(A)	261	Industrial Ventilation	3	261	Industrial Ventilation	2	2
(A)	270	Occ Safety & Hygiene	5	270	Occ Safety & Hygiene	3	3
(A)	272	Hazard Recognition	3	272	Hazard Recognition	2	2
(A)	280	Food Mgr Certification	2	280	Food Mgr Certification	1	1
(E)	281	Adv Food Management	1	(deleted)	(deleted)		
(A)	290	Expr Stud in the Envt	1-4	291	Expr Stud in the Envt	1	1
(A)	291	Student Field Experience	4	291	Student Field Experience	3	3

Environmental Health Technology (ENVT)

(C)	100	Seminar	1	(deleted)	(deleted)		
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Firelands (FIRE)

(C)	100	Seminar	1	(deleted)	(deleted)		
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Humanities (HUM)

(A)	101	Intro to the Humanities	4	101	Intro to the Humanities	4	3
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Industrial Engineering Technology (INET)

(C)	121	Industrial Organizations	2	122	Ind Org & Business Decisions	3	3
(C)	122	Business Decisions	4	(absorbed into AMS 100)	(absorbed into AMS 100)		
(C)	123	Basic Mfg Processes	4	(absorbed into MFG 113)	(absorbed into MFG 113)		
(A)	131	Operations Analysis	6	131	Operations Analysis	4	4
(A)	132	Methods-Time Meas	3	132	Methods-Time Meas	2	2
(A)	133	Statistics for Work Samp	2	133	Statistics for Work Samp	1	1
(A)	134	Time Study	6	134	Time Study	4	4
(A)	135	Methods-Time Meas	4	135	Methods-Time Meas	2	2
(A)	136	Methods Study	2	136	Methods Study	3	3
(A)	140	Prod Ctrl:Con & Prob I	4	140	Prod Ctrl:Con & Prob I	2	2
(A)	141	Prod Ctrl:Con & Prob II	4	141	Prod Ctrl:Con & Prob II	3	3
(A)	142	Inventory Control	6	142	Inventory Control	4	4
(A)	143	Quality Control	4	143	Quality Control	3	3
(A)	144	Cost & Bud Ctrl:Pro Plan	6	144	Cost & Bud Ctrl:Pro Plan	4	4
(E)	251	Plant Location	2	(deleted)	(deleted)		
(A)	252	Plant Layout	5	252	Plant Layout	3	3
(C)	253	Utilities & Maint I	5	(absorbed into TECH 191)	(absorbed into TECH 191)		
(A)	254	Utilities & Maint II	5	254	Utilities & Maint II	3	3
(A)	255	Material Handling	5	255	Material Handling	3	3
(A)	261	Union-Mgmt Relations	4	261	Union-Mgmt Relations	2	2
(A)	262	Wage & Salary Admin	3	262	Wage & Salary Admin	2	2
(C)	263	Mgmt Techniques	2	(absorbed into TECH 218)	(absorbed into TECH 218)		
(C)	271	Mgmt Science Applic	4	(absorbed into MIS 200)	(absorbed into MIS 200)		
(A)	272	Social Respon of Bus	3	272	Social Respon of Bus	2	2
(E)	273	Adv Processes & Materials	3	(deleted)	(deleted)		

Manufacturing Technology (MFG)

(C)	211	Mfg Processes II Forming	4	211	Mfg Proc II Forming/Combining	3	3
(C)	212	Mfg Proc II Combining	4				
(A)	213	Non-trad Mfg Proc III	4	213	Non-trad Mfg Processes III	3	3
(C)	215	Metallurgy	4	215	Metallurgy & Metrology	3	3
(E)	216	Metrolgy	4	(deleted)	(deleted)		
(E)	217	Production Planning & Ctrl	4	(deleted)	(deleted)		

Medical Record Technology (M

LATE CHANGES TO THE COURSE DESCRIPTION HANDBOOK

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CHANGES IN COURSE NUMBERS AND DESCRIPTIONS

Applied Statistics (STAT) 400 is now STAT 312.

CHEM 453 has an alternate prerequisite of PHYS 202, not PHYS 215.

EDCI 429 (Teaching Foreign Language Skills) is the course following EDCI 426.

FREN 260, 261, 362, 452, 463, 468 and 469 should be deleted.

HOEC 202—Delete "One hour of lecture and four hours of lab."

HOEC 412—Delete "One hour of lecture and four hours of lab."

HOEC 423 is offered second semester every year.

WS 490 is now WS 470.

RED 304 is now RED 273.

ET 244 and ET 245 are offered on both campuses and should be so designated by a diamond.

UNDERGRADUATE COURSES THAT HAVE BEEN ADDED

CHEM 299. Semester Transition Course (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.

Environmental Studies (ENVS)

ENVS 101. Approaches to Environmental Studies (2) II. Philosophy and practice of environmental concern; career opportunities, contemporary issues, organizations.

ENVS 301. Environmental Problems (3) I. Interdisciplinary approach to selected environmental problems through research and analysis; emphasis on team approach.

ENVS 401. Environmental Strategies (2) Summer. Environmental problem solving through systems approach and citizen participation process.

ENVS 402. Environmental Impact Statements (3) II. History and concepts of environmental impact statements; procedures in preparing and reviewing such statements.

FREN 458. Career French I (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation. Prerequisite: FREN 351 or FREN 352.

FREN 459. Career French II (3). Advanced study of the economic and administrative structures in France and in Francophone areas, with intensive concentration on related technical language. Prerequisite: FREN 458.

FREN 464. Seventeenth Century French Literature (4). Baroque and classical French literature. Prerequisite: FREN 361.

FREN 470. Independent Readings in French (1-3). Readings for the advanced student who wishes to study a particular author or period, or problem in language or civilization. Prerequisite: consent of department chair and instructor.

FREN 474. Eighteenth Century French Literature (4). Literature of the Enlightenment. Prerequisite: FREN 361.

FREN 484. Nineteenth Century French Literature (4). Literature of France of the nineteenth century, including Romanticism, Realism and Naturalism. Prerequisite: FREN 361.

FREN 488. French Literature: Advanced Studies (3). Intensive study of author, literary school, genre or a selected theme. May be repeated if topics clearly differ. Prerequisite: FREN 361.

FREN 494. Twentieth Century French Literature (4). Contemporary French and Francophone novel, theatre and poetry. Prerequisite: FREN 361.

POLS 495. Honors Seminar in Contemporary Political Science (4) I, II. Political science as discipline and profession; forms of political inquiry and research; scientific and methodological orientations toward values and scholarship; public and professional status of political science. Prerequisite: permission of honors committee. May be repeated to eight hours.

SPAN 221. Hispanic Songs (1) I, II. Traditional and popular songs from various Hispanic countries, sung in Spanish; emphasis on study of texts and pronunciation. May be repeated to maximum of three hours. Prerequisite or corequisite: SPAN 101, or consent of instructor.

SPAN 231. Hispanic Folk Dancing (1) I, II. Traditional dances of Spain and Spanish America, especially those of Mexico and Colombia. Learning and performance of dances accompanied by regional and historical background. May be repeated to maximum of two hours. No prerequisite.

SPAN 351. Spanish Composition and Conversation I (3). Development of skill in speaking and writing, with appropriate grammar review. Prerequisite: SPAN 202.

SPAN 352. Spanish Composition and Conversation II (3). Continued development of skill in speaking and writing, with appropriate grammar review. Prerequisite: SPAN 202.

SPAN 367. Introduction to Spanish Peninsular Literature (3). Outstanding authors, works and movements of Peninsular literature from the Middle Ages to the present. Prerequisite: SPAN 351 or SPAN 352 or consent of instructor.

SPAN 368. Introduction to Spanish American Literature (3). Outstanding authors, works and movements from the time of discovery to the present. Prerequisite: SPAN 351 or SPAN 352 or consent of instructor.

SPAN 371. Spanish Civilization (3). Political, social, intellectual, artistic development of Spain. Prerequisite: SPAN 351 or SPAN 352.

SPAN 377. Civilization of Mexico and the Caribbean (3). Political, social, intellectual, artistic development of Mexico, Central America, and Spanish-speaking islands of the Caribbean. Prerequisite: SPAN 351 or SPAN 352.

SPAN 378. Civilization of South America (3). Political, social, intellectual, artistic development of Spanish-speaking countries of South America. Prerequisite: SPAN 351 or SPAN 352.

SPAN 380. Introduction to Spanish-English Bilingualism (2). Concepts and principles of bilingual-bicultural programs in the United States. Prerequisite: SPAN 202 or equivalent.

SPAN 382. Spanish Business Correspondence (2). Spanish for commercial purposes; business letter writing. Prerequisite: SPAN 351 or SPAN 352.

SPAN 431. Spanish American Fiction (3). Major authors and works from literary movements of the 19th and 20th centuries, with emphasis on either regionalism or the contemporary novel. Prerequisite: SPAN 368.

SPAN 441. Medieval and Golden Age Literature (3). Representative masterpieces of Spanish literature from the Middle Ages and the Siglo de Oro: Epic, poetry, novel, and theater. Prerequisite: SPAN 367.

SPAN 442. Spanish Literature of the Nineteenth Century (3). Outstanding works of the 19th century; romanticism, realism, naturalism, prose and poetry. Prerequisite: SPAN 367.

SPAN 444. Spanish Literature of the Twentieth Century (3). Outstanding works from the generation of 1898 to the present; poetry and prose. Prerequisite: SPAN 367.

SPAN 450. Advanced Grammar and Composition (3). Grammar and composition, especially appropriate for future teachers of Spanish. Prerequisite: SPAN 351 and SPAN 352.

SPAN 455. Applied Linguistics (3). Phonological, morphemic, syntactical, semantic aspects of Spanish; application to language learning and teaching. Prerequisite: SPAN 351 and SPAN 352 or consent of instructor.

SPAN 463. Career Spanish (3). Development of translation skills (Spanish to English and English to Spanish) on materials representing a wide range of technical, professional, and business careers. Prerequisite: SPAN 351 and SPAN 352.

SPAN 470. Readings in Hispanic Literature (1-3). Independent reading for the advanced student who wishes to study a particular period or author. Prerequisite: consent of department chair and instructor.

SPAN 481. Spanish-American Literature I: Discovery to Modernism (3). Representative authors from the Chroniclers through the Romanticists; prose and poetry. Prerequisite: SPAN 368 or consent of instructor.

SPAN 482. Spanish-American Literature II: Modernism to the Present (3). Representative authors from Modernism and subsequent 20th century literary developments; prose and poetry. Prerequisite: SPAN 368 or consent of instructor.

SPAN 485. Contemporary Mexican Literature (3). Outstanding works of the 20th century. Prerequisite: SPAN 368 or consent of instructor.

SPAN 489. Hispanic Studies (3). Intensive study of an author, literary school, genre, or selected theme. May be repeated if topics are clearly different. Prerequisite: SPAN 367 or SPAN 368.

GRADUATE COURSES THAT HAVE BEEN ADDED

COAS 460. Workshop in Teacher's Role in Staff Problems (1).

EDAS 496. Workshop in Community Resources (2).

EDSE 615. School Psychology Supervised Experience I (1-10) I. Experiences in school psychology under supervision of school psychologist in approved supervised experience center. Registration requires approval of director of school psychology program, chair, and instructor. Graded S/U

EDSE 616. School Psychology Supervised Experience II (1-10) II. EDSE 615 continued. Prerequisite: EDSE 615.

EDSE 680. Advanced Seminar in Special Education/School Psychology (1-4) I, II, summer on demand. Selected topics within the discipline; content varies from one year (or semester) to next. May be repeated on approval of adviser if graduate program department credit desired or at discretion of student for certification, or for personal growth.

REHB 597. Research in Rehabilitation (3) On demand. Analysis of the research methodology relation to rehabilitation. Emphasis is on applied rather than basic research. Prerequisite: EDFI 596 or equivalent.

FREN 556. French Grammar and Style (3). Literary French: vocabulary, syntax, style.

CDIS 434. Teaching Beginning Speech to the Deaf (2) I. Speech development of deaf. Analysis of auditory, tactile, proprioceptive and visual aspects of speech sounds. Relative difficulty of producing speech sounds and teaching them. Prerequisite: EDSE 461, 464. C/F hrs: 15.

CDIS 436. Teaching Advanced Speech to the Deaf (2) II. Review and comparison of methods in teaching speech to deaf. Common problems in speech classes for deaf. Speech sounds and their maintenance and correction as integral part of academic curriculum. Prerequisite: CDIS 434. C/F hrs: 15.

CDIS 471. Introduction to Communication Disorders for the Classroom Teacher (3). Identification, etiologies, and characteristics of communication disorders. Suggestions for classroom management of communication disorders. Not open to students with credit for CDIS 223.

CDIS 481. Organization and Management of School Speech-Language Hearing Programs (3) I, II. Planning and implementing programs in schools for speech-language and hearing-handicapped pupils. Clinician's roles and responsibilities. Grade of "C" or better in this course to qualify for student teaching. Prerequisites: all CDIS courses.

COURSE DESCRIPTIONS

Undergraduate Courses

This publication contains the titles and descriptions of all courses at BGSU that have been converted for the semester system; it is intended for use by students registering during spring quarter 1982 for fall semester 1982. In July, a revised undergraduate catalog will be issued to be used for the academic year 1982-83; it will contain University and degree requirements as well as the undergraduate and Firelands courses contained in this handbook. A new graduate catalog will be issued in mid-June.

A ♦ preceding a course number indicates that the course is offered both at Firelands and on the main campus.

A † preceding a course number indicates that the course is offered only at Firelands.

The Arabic number in parentheses immediately following the title of the course indicates the number of hours of credit.

The Roman numerals indicate the term the course is usually offered on the main campus with I indicating fall semester; II, spring semester; and III, summer term.

Courses numbered from 100 to 199 are ordinarily for freshmen or sophomores.

Courses numbered from 200 to 299 are for sophomores, juniors, and seniors and are not ordinarily open to freshmen.

Courses numbered from 300 to 499 are ordinarily open to juniors and seniors but under exceptional circumstances may be taken by a student upon the recommendation of his or her adviser and with the written approval of the instructor of the course or the chair of the department concerned.

Courses which may be taken for graduate credit are listed following the undergraduate courses in this handbook.

Accounting (ACCT)

♦ **ACCT 221. Introduction to Accounting I** (3) I, II, summer. Financial accounting concepts and methodology for accumulating data on the results of economic activities of a business concern and reporting such results to various user groups. Underlying theory of the reporting model as it relates to user decisions about the business. Prerequisite: sophomore standing or consent of instructor.

♦ **ACCT 222. Introduction to Accounting II** (3) I, II, summer. ACCT 221 continued with emphasis on usage of accounting information in the managerial process. Problems of cost determination, cost flows, cost behavior are explored. Specialized accounting topics of auditing, SEC, non-profits, and international organizations are introduced. Prerequisite: ACCT 221.

ACCT 321. Intermediate Financial Accounting I (3) I, II, summer. Development and application of financial accounting concepts and generally accepted accounting principles. Preparation of financial statements and accounting for changes in accounting principles. Emphasis on valuation and cost allocation methods for assets and related effects on income statements. Prerequisite: admission to the degree program in accounting or consent of department.

ACCT 322. Intermediate Financial Accounting II (3) I, II, summer. ACCT 321 continued with emphasis on long-term liabilities, pensions, leases, stockholders' equity, income tax allocation, accounting for inflation, and the statement of changes in financial position. Prerequisite: grade of C or better in ACCT 321.

ACCT 325. Accounting Concepts for Non-business Students (3) I, II, summer. Accounting concepts and procedures and their contribution to administrative processes. Enterprise analysis, relevant data, its uses and limitations. Not applicable to pre-professional core requirements in the College of Business. Not open to students who have completed ACCT 221 or ACCT 222. Prerequisite: junior standing.

ACCT 327. Financial Accounting for Non-majors (3) I. Structure and theory of financial accounting. Evaluation of existing conventions and procedures pertaining to external reporting. No credit towards accounting concentration. Prerequisite: ACCT 222.

ACCT 331. Cost Accounting (3) I, II, summer. Cost determination and cost accounting systems. Cost analysis using regression methods. Job order, process, standards, and variable cost systems. Accounting for spoilage, service departments, and joint products. Prerequisite: admission to degree program in accounting and STAT 212, or consent of department.

ACCT 332. Intermediate Managerial Accounting (3) I, II, summer. Accounting's relationship to planning and control function. Budgeting, corporate planning models, cost-volume-profit analysis, relevant data, capital budgeting, data for operations research models, behavioral considerations, enriched variance systems, evaluation of performance, and transfer pricing. Prerequisite: grade of C or better in ACCT 331.

ACCT 337. Management Accounting for Non-majors (3) II. Accounting concepts as tools for administrative evaluation and control of business operations. Nature, usage, and reliability of accounting data in the decision making process. Cost analysis and profit planning. No credit towards accounting concentration. Prerequisite: ACCT 222.

ACCT 421. Advanced Financial Accounting (3) I. Theory and practice for business combinations and consolidations, partnerships, branch and home office accounting, financial reporting for multinationals including foreign currency translation. Prerequisite: grade of C or better in ACCT 322.

ACCT 422. Contemporary Financial Accounting Topics (3) II. Theory and implications for accounting practice of selected contemporary financial accounting topics. Topics vary with governmental and professional bodies' pronouncements impacting on financial accounting. Prerequisite: grade of C or better in ACCT 322.

ACCT 423. Accounting for Non-profits (3) II. Methods and problems of controlling and reporting on resources (funds) segregated for conducting specific activities of non-profit-seeking entities; budgetary control. Prerequisite: grade of C or better in ACCT 322 or consent of instructor.

ACCT 424. Financial Reporting for Multinationals (3) II. Alternate years. Case study of worldwide accounting control and reporting problems, impact of cultural and legal constraints, and objective appraisal of various accounting principles and pronouncements. Prerequisite: grade of C or better in ACCT 322.

ACCT 429. Problems in Accounting Practice (3) II. Comprehensive review and integration of accounting theory and practice using problem method. Prerequisite: 16 hours of accounting and grade of C or better in ACCT 322.

ACCT 439. Role of the Financial Executive (3) II. Capstone case study of accountant's role in management planning and control; profit centers, discretionary costs, budgeting, strategy, and evaluation of enterprise performance. Prerequisite: grade of C or better in ACCT 332 or in ACCT 337, or consent of instructor.

ACCT 441. Introduction to Federal Taxation (3) I, summer. History, assumptions, objectives of federal tax system. Determination of an entity's taxable and nontaxable incomes, capital gains and losses, deductions and exemptions, and special provisions. Reporting requirements and determination of tax liability. Introduction to federal tax research methodology. Prerequisite: grade of C or better in ACCT 322, or grade of C or better in ACCT 321 if concurrently registered for ACCT 322.

ACCT 442. Advanced Federal Taxation (3) II. Determination of taxable income and reporting requirements unique to corporations, partnerships, and Subchapter S corporations. Application of federal tax laws to special problems of corporations including stock redemptions, capital structure, liquidation, and corporate accumulations. Overview of federal taxation of gifts, estates, and trusts. Prerequisite: grade of C or better in ACCT 441.

ACCT 451. Auditing I (3) I, summer. Auditing procedures and practices of independent verification of financial records and reviews of operations as used by internal auditors and public accountants. Nature of audit evidence, evaluation of internal controls, statistical sampling, computer auditing. Prerequisite: grade of C or better in ACCT 322, or grade of C or better in ACCT 321 if concurrently enrolled in ACCT 322.

ACCT 452. Auditing II (3) II. Auditor's role in society, auditing standards, professional ethics, accountants' legal liability, the auditor's report. Case studies in applied auditing. Prerequisite: grade of C or better in ACCT 451, or consent of instructor.

ACCT 489. Accounting Internship (1-3) I, II, summer. Upon advance approval by program coordinator. Work experience and its evaluation in seminar must be completed in quarter following work experience. Not open to student with credit for any other 409 course in College of Business. Graded S/U.

ACCT 491. Studies in Accounting (1-3) On demand. Investigation in depth of selected areas or contemporary problems. May be offered individually as well as in classes depending on student needs and nature of material. Prerequisite: approval of department.

Accounting Technology (ACT)

†**ACT 231. Financial Accounting** (3) I or II. Theory and application of generally accepted accounting principles as pronounced by the Financial Accounting Standards Board (FASB) and the Securities Exchange Commission (SEC). Designed for the associate of applied business accounting program at Firelands. Prerequisite: ACCT 221.

†**ACT 241. Cost Accounting** (3) I or II. Theory and application of job-order-cost systems, process cost systems, and standard cost systems. Designed for the associate of applied business accounting program at Firelands. Prerequisite: ACCT 222.

†**ACT 251. Federal Income Tax** (3) I or II. Theory and application of federal income taxes as applied to the individual, sole proprietorship, partnership, and corporation. Designed for the associate of applied business accounting program at Firelands.

Aerospace Studies (AERO)

These courses are for Air Force ROTC. Successful completion of these courses can lead to a commission as an officer in the United States Air Force.

AERO 111. Air Force Organization (1) I. Organization of the United States Air Force, mission function and employment of strategic forces, capabilities of Army in limited war and counterinsurgency, Naval forces structure and employment, enemy threat assessment. Leadership laboratory activities.

AERO 112. Air Force Organization (1) II. U.S. general purpose force capabilities, mission, resources, operation of tactical air forces defensive forces, airlift forces, structure and function of logistics support weapons systems development. Leadership laboratory activities.

AERO 211. Air Force History (1) I. Development of air power from the first lighter-than-air vehicles through to the establishment of the Department of the Air Force as an independent military force. Various concepts of employment of air power and factors which have prompted research and technological change. Examples of impact of air power on strategic thought. Leadership laboratory activities.

AERO 212. Air Force History (1) II. Development of air power since the establishment of the independent Air Force to the present. Various concepts of employment of air power and factors which have prompted research and technological change. Examples of impact of air power on strategic thought. Leadership laboratory activities.

AERO 311. Air Force Management (3) I. Integrated management course emphasizing individual as a leader in the Air Force. Human behavior, individual and in groups, historical development of management thought, discussion of classical leadership theory; oral and written communication, military writing, and briefing formats. Leadership laboratory activities. Prerequisite: departmental approval.

AERO 312. Air Force Management (3) II. AERO 311 continued. Air Force leadership, planning, organizing, coordinating, directing and controlling functions of management with emphasis on Air Force application, concept of command and staff, junior officer as administrative leader, Air Force personnel system, management of change, managerial strategy in changing environment. Leadership laboratory activities. Prerequisite: departmental approval.

AERO 362. Flight Instruction Program: Ground School (3) II. Basic aerodynamics; aircraft systems and performance; flight instruments; medical facts; Federal Aviation Administration/National Transportation Safety Board regulations; National Airspace System; flight publications; meteorology and weather services. Aviation map and chart interpretation; flight computer; dead reckoning and pilotage navigation; radio navigation; radio communication; airport operations; wake turbulence; flying safety. Required of AFROTC pilot candidates. Special departmental approval required for all others.

AERO 411. Air Force Officership (3) I. The Air Force officer as part of national security forces in contemporary American society, armed forces as integral element of society, American civil military relations and environmental context in which defense policy is formulated. Formulation and implementation of U.S. defense policy; framework of defense policy including domestic and international system. Leadership laboratory activities. Prerequisite: departmental approval.

AERO 412. Air Force Officership (3) II. The Air Force officer and his part in the evolution of defense strategy since World War II. Strategy and management of conflict, arms interaction and control, limited war, insurgency, counter-insurgency, international terrorism, military law. Initial Active Duty Orientation. Leadership laboratory activities. Prerequisite: departmental approval.

AERO 461. AFROTC Flight Instruction Program (2) I. Aircraft operation; flight safety; rules of the air, instruction in advanced flight maneuvers; navigation techniques. Required of and limited to AFROTC pilot candidates.

Aerotechnology (AERT)

(See technology)

American Studies (AMST)

AMST 200. Introduction to American Studies (3) I. Regional, ethnic, and economic aspects of American national experience as reflected in verbal, visual, and material artifacts. Culture theory and models used to examine selected topics and problems. Required of all American studies majors.

AMST 230. Issues in American Civilization (3) I, II. Characteristically American themes, issues, or problems reflecting relationships among ideas, values, traditions, events, and personalities. Subject matter designated in time schedule; may be repeated once if topics differ.

AMST 240. Historical Perspectives on American Culture (3) I, II. Interdisciplinary study of a theme, issue, or problem as it relates to historical development of American culture. Designed for non-majors; meets requirement for Group IV.

AMST 300. Interpretations of American Culture (3) I, II. Such theories as frontier thesis, melting pot, cultural pluralism, regionalism, and technocracy and their imaginative expression. Prerequisite: junior standing or consent of instructor. May be repeated if subject differs.

AMST 400. Senior Seminar in American Studies (3) II. Interdisciplinary approach to study of American culture. Required of American studies majors, but of interest to students who focus on American culture, society, institutions, or economics in their particular disciplines. May be repeated once if topics differ. Prerequisite: senior or permission of instructor.

AMST 490. Tutorial in American Studies (1-3) I, II. Independent study in special interdisciplinary subject not covered by existing courses. Prerequisite: junior standing; proposal, signed by proposed tutor, must be submitted for approval by undergraduate adviser in American studies prior to semester in which tutorial begins.

Applied Mathematics and Statistics (AMS)

†**AMS 100. Developmental Mathematics** (3) I, II, summer. Review of basic mathematics such as equations, inequalities, exponents and radicals, logarithms, polynomial functions, graphs, and applications. Credit for this course does not apply toward graduation if credit for any other AMS or MATH course has been taken. Graded S/U.

Applied Statistics (STAT)**

- ***STAT 200. Using Statistics** (3). Descriptive statistics, common statistical measures, interpretation and misinterpretations of statistical techniques (statistical sampling, regression analysis, design of comparative experiments). Does not count toward graduation credit for students receiving B.S. in B.A.
- ◆**STAT 211. Elementary Statistical Methods I** (3) I, II. Elementary probability, random variables, probability distributions, sampling, descriptive statistics, decision theory, and sampling distributions. Prerequisite: MATH 125 or MATH 131 or concurrent registration in MATH 125.
- ◆**STAT 212. Elementary Statistical Methods II** (3) I, II. Estimation, hypothesis testing, regression, correlation, analysis of variance, and contingency tables. Prerequisite: STAT 211.
- ***STAT 311. Introduction to Regression and Design** (3) I, II. Regression analysis; topics in design of experiments. Prerequisite: STAT 212 or MATH 442 or consent of instructor.
- STAT 315. Introduction to Statistical Inference** (3) I. N-dimensional random variables and distributions; methods of estimation; hypothesis testing. Prerequisites: STAT 212 and MATH 232. Not open to students with MATH 442.
- ***STAT 400. Topics in Applied Statistics** (3). Selected topics from time series, sample design, decision theory, nonparametrics or factor analysis. Prerequisite: STAT 212.
- STAT 402. Regression Analysis** (3) I. Linear, nonlinear, and multiple regression and correlation analysis. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 404. Time Series Analysis** (3). Stochastic stationary and nonstationary models; use in forecasting seasonal and nonseasonal discrete time series; fitting models to time series data. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 406. Sample Design** (3) II. Sampling as a tool of scientific inference in research and management. Planning surveys; sample size, stratified, systematic, and cluster sampling; sources of error in surveys. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 410. Experimental Design** (3) II. Constructing statistical designs and analyzing resulting data; basic experimental design and analysis of variance. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 412. Applied Nonparametric Statistics** (3). Nonparametric approach to testing hypotheses: contingency tables, goodness of fit, procedures based on ranks. Prerequisites: STAT 315 or MATH 442 or consent of instructor.
- STAT 414. Statistical Quality Control** (3). Statistical process control; Shewhart control charts (variables and attributes); acceptance sampling (single, double, and sequential); Dodge-Romig Tables. Prerequisite: STAT 212 or MATH 442 and one additional STAT course or consent of instructor.

STAT 491. Studies in Statistics (1-3). On demand. Investigation of selected areas or contemporary problems. May be offered individually and in classes depending on student needs and nature of material.

Art (ART)

- ◆**ART 101. Introduction to Art** (3) I, II, summer. Historical and aesthetic components of art with laboratory experiences with basic elements of creative expression. Non-majors only. Two hours studio, two hours lecture.
- ◆**ART 102. Two-Dimensional Foundations** (3) I, II. Introduction to principles of art through a variety of concepts and media used in creative two-dimensional form organization. Required of art majors and minors. Can be taken with ART 103.
- ◆**ART 103. Drawing Foundations** (3) I, II. Development of drawing skills through observation of natural objects to aid expressive draftsmanship and pictorial accuracy. Required of art majors and minors. Can be taken with ART 102 or ART 112.
- ◆**ART 112. Three-Dimensional Foundations** (3) I, II. Creative principles of art in three-dimensional form emphasizing aesthetics, utilitarian concepts and tools in experimental studio experiences. Required of art majors and minors. Can be taken with ART 103.
- ◆**ARTH 145. Western Art I** (3) I, II. Ancient, Medieval, and early Renaissance art.
- ◆**ARTH 146. Western Art II** (3) I, II. Art from High Renaissance to present. May be taken before ART 145.
- ◆**ART 205. Figure Drawing** (3) I, II. Principles and practices of creative and structural figure drawing; development of concepts and techniques for competent graphic expression related to drawing human forms. Six studio hours. Prerequisite: ART 103. Lab fee.
- ART 206. Drawing from Life** (3) I, II. Further work on visual comprehension in figure drawing to improve perceptual judgment; move to a more personal and selective level of stylistic interpretation. Six studio hours. Prerequisite: ART 205. Lab fee.
- ◆**ARTD 211. Introduction to Graphic Design** (3) I, II. Exploration and application of design principles, layout and typography; tools, techniques and terminology of the discipline. Six studio hours. Prerequisite: ART 102 or consent of instructor. Lab fee.
- ◆**ART 212. Introduction to Product Design** (3) I, II. Problem-solving as related to product design; terminology, drafting, modelmaking and prototypes. Six studio hours. Prerequisites: ART 103 or ART 112 or DESN 104 or consent of instructor. Lab fee.
- ◆**ART 213. Introduction to Environmental Design** (3) I, II. Fundamentals, terminology, methods of communication for the environmental profession. Use of illustration and three-dimensional models as means of exploring design and presentation. Six studio hours. Prerequisite: ART 112 or consent of instructor. Lab fee.
- ART 230. Introduction to Art Therapy** (2) I, II. Theories, practices and literature of the profession. Prerequisite: ART 102 or ART 103 or consent of instructor. Lab fee.
- ARTE 252. Foundations for Teaching Visual Arts** (3) I, II. Lecture, laboratory, and field-based experiences for art teaching. Clinical analysis of instructional behavior in art education-settings. Prerequisite: sophomore standing.
- ART 261. Sculpture I** (3) I, II. Creative concepts, arrangements and techniques of three-dimensional sculptural forms. Six studio contact hours. Prerequisites: ART 101 or ART 102. Lab fee.
- ART 263. Ceramics I** (3) I, II. Clay as creative medium for functional forms. Handbuilding and wheel techniques; simple sculpture; glazing and firing; survey of clays, pottery types, kilns, pyrometry. Six studio hours. Prerequisites: ART 102, ART 112. Lab fee.
- ART 265. Non-Loom Fiber Techniques** (3) I, II. Concepts and techniques as related to non-loom techniques for fiber forms: felting, coiling, crochet, macrame, card weaving or plaiting. Six studio hours. Lab fee.
- ART 267. Stained Glass Compositions** (3) I. Techniques involved with creative two and three-dimensional arrangements; emphasis on individual studio development. Six studio hours. Lab fee.
- ART 277. Printmaking I** (3) I, II. Basic techniques for woodcuts, silk screen, intaglio, or lithography. Six studio hours. Prerequisite: ART 103. Lab fee.
- ART 305. Advanced Drawing from Life** (3) I, II. Advanced experimentation using the figure in drawing composition with a graphic media. Six studio hours. Prerequisite: ART 206. Lab fee.
- ARTD 311. Advanced Graphic Design** (3) I, II. Advanced problems in graphic design with an emphasis on typography and editorial and publication design. Six studio hours. Prerequisite: ART 211 or consent of instructor. Lab fee.
- ARTD 312. Advertising Design** (3) I, II. Translating words and ideas into visual realities of mass communication; magazines, newspapers, billboards, direct-mail, and TV. Use of felt markers, storyboards and video tape. Six studio hours. Prerequisite: ART 311 or consent of instructor. Lab fee.
- ARTD 313. Rendering** (3) I, II. Studio practice with professional techniques for presenting three-dimensional design on a two-dimensional surface. Six studio hours. Prerequisite: ART 212 or ART 213 or consent of instructor. Lab fee.
- ART 315. Glassworking** (3) I, II. Free hand-blown glass formation; personal creative use of glass as an artistic medium for expression. Six studio hours. Lab fee.
- ◆**ART 320. Enameling on Metal** (3) I, II. Enameling techniques on copper; after initial 6 hours credit earned, choice of copper or jewelry techniques. Six studio hours. May be repeated to 9 credit hours. Prerequisite: ART 101 or ART 102, or consent of instructor. Lab fee.
- ART 321. Beginning Jewelry Design** (3) I, II. Design and fabrication techniques of metal jewelry - piercing, chasing, repousse, soldering and stone setting. Six studio hours. Prerequisite: ART 101 or ART 102, or consent of instructor. Lab fee.
- ◆**ART 322. Jewelry Design** (3) I, II. Centrifugal casting of silver, gold, tombac, brass and bronze jewelry and related objects, using wax and plastic models. Six studio hours. Prerequisite: ART 321. Lab fee.

* Cannot be counted toward specialization in STAT.
**See also mathematics and statistics (MATH).

- ◆ **ART 325. Creative Photography** (3) I, II. Photography as a fine art. Use of camera for personal creative expression; individual perception, articulation and interpretation. Six studio hours. Prerequisites: ART 102 or consent of instructor.
- ARTT 330. Art Therapy: Methods and Theories I** (3) I. Psychological, creative and educational models which provide foundation philosophy for art therapy practice; methods of using art experience for art therapy. Field observation and laboratory. Prerequisite: ART 230. Lab fee.
- ARTT 331. Art Therapy: Methods and Theories II** (3) II. Lecture and supervised field experience emphasizing relationship of art process, art therapy methods and special needs populations. Prerequisite: ART 330. Lab fee.
- ◆ **ARTE 343. Art in the Elementary Schools** (2) I, II, summer. Professional methods lecture, clinical studio laboratory exploration of art media and planning approaches for teaching art to children in relation to their creative and artistic development. Not for arts and sciences credit. Not open to art majors. Prerequisite: ART 101 or ART 102. Lab fee.
- ARTE 352. Approaches to Public School Art** (3) I, II. Theories of creative development in lecture/laboratory and field experiences. Lesson content selection, planning and presentation for visual arts teaching. Not for arts and sciences credit. Prerequisites: ART 252 and EDFI 302. C/F hrs.: 40.
- ARTE 353. Approaches to Art Curriculum and Supervision** (3) II. Planning and management of art programs; clinical experiences related to development of instructional units for art curricula. Not for arts and sciences credit. Prerequisites: ART 252 and 352. C/F hrs.: 20.
- ART 361. Sculpture II** (3) I, II. Three-dimensional development in techniques such as: casting, assembling, fabricating, manipulating and forming metal, plastic, plaster, etc.; welding with oxygen/acetylene, arc and MIG; and carving wood and stone. Six studio hours. May be repeated to six hours.
- ART 363. Ceramics II** (3) I, II. Development of throwing techniques, design concepts, surface decoration, and sculptural forms. Laboratory development of simple glazes. Kiln stacking and firing. Six studio hours. Prerequisite: ART 263. Lab fee.
- ART 365. Loom Weaving** (3) I, II. Techniques of weaving on a 4-harness loom. Emphasis on materials and creative interpretation of fiber forms. Six studio hours. Lab fee.
- ◆ **ART 371. Watercolor Painting I** (3) I, II. Introductory experimentation with painting techniques on paper; employment of the figure, still-life and landscape as initial references. Six studio hours. Prerequisite: ART 103.
- ◆ **ART 372. Watercolor Painting II** (3) I, II. Choice of specific compositional problems exploring the possibilities of design and expression in watercolor techniques; creation of foundational surfaces, mixed media, and works in series. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 371.
- ◆ **ART 373. Oil/Acrylic Painting I** (3) I, II. Exploration of painting techniques from traditional and contemporary using oil and acrylic paint as a medium emphasizing individual artistic response. Six studio hours. Prerequisite: ART 103.
- ◆ **ART 374. Oil/Acrylic Painting II** (3) I, II. Opportunity to experiment with varying media and techniques and to use fundamentals learned in introductory course. Six studio hours. May be repeated to six hours to provide more individual instruction. Prerequisite: ART 373.
- ART 377. Printmaking II** (3) I, II. Development of additional techniques as related to woodcuts, silk screen, intaglio or lithography. Six studio hours. May be repeated to six hours. Prerequisite: ART 277. Lab fee.
- ART 395. Workshop on Current Topics in Art** (1-4). Select semesters. Short-term workshop in studio or art education with content and emphasis as directed by needs and interests. One or two clock hours per credit depending on type. Prerequisite: as announced for each workshop.
- ART 405. Advanced Drawing** (3) I, II. Conceptual imagery in drawings as completed visual statements; not exclusively concerned with the human figure. Six studio hours. May be repeated to six hours. Prerequisite: ART 206. Lab fee.
- ARTD 412. Packaging and Promotion Design** (3) I, II. The package as attractive, informative product vehicle, and its relationship to consumer purchase. Promotional and collateral advertising of product and package. Six studio hours. Prerequisite: ART 312 or consent of instructor. Lab fee.
- ARTD 413. Corporate Identity Design** (3) I, II. Professional presentation of corporate identity program for existing or fictitious company. Development and application of trademark and/or logo type based on compiled in-depth research. Six studio hours. Prerequisite: ART 412 or consent of instructor. Lab fee.
- ART 415. Advanced Glassworking** (3) I, II. Continuation of free handblown glass formation. Cast glass techniques including: pate de verre, slumping, sand casting. Equipment and studio construction. Six studio hours. Prerequisite: ART 315. Lab fee.
- ARTD 416. Product Design and Development** (3) I, II. Research, design and development of objects for manufacture. In-depth projects include drawings, renderings, and models or prototypes. May be repeated to six hours. Prerequisites: ART 212 and ART 213 or consent of instructor. Lab fee.
- ARTD 417. Environmental Design** (3) I, II. Contemporary environmental planning; includes projects dealing with a variety of spaces and functions; use of renderings and models. May be repeated to six hours. Prerequisite: ART 213 or consent of instructor. Lab fee.
- ARTD 418. Senior Design Problems** (3) I, II. Specific design problems chosen from actual product or environmental situations. Research, design, and presentation handled as final portfolio project. Six studio hours. Prerequisite: senior standing. Lab fee.
- ARTD 419. History of Design** (2) I, II. Slide survey of architectural, graphic, and industrial design movements influencing western culture from 1850 to present.
- ART 421. Advanced Jewelry Design** (3) I, II. Advanced problems in jewelry design, smithing and forging. Six studio hours. May be repeated to 9 credit hours. Prerequisite: ART 321 and 322. Lab fee.
- ART 423. Jewelry Enameling** (3) I, II, summer. Specialized course for students wishing to combine champleve, cloisonne, and plique-a-jour enameling techniques with jewelry. Six studio hours. Prerequisite: ART 320 and 421. Lab fee.
- ART 425. Advanced Problems in Creative Photography** (3) I, II. Advanced level assignments in creative photography: development of personal direction; emphasis on communicative potential of resulting images. Six studio hours. May be repeated to six hours. Prerequisite: ART 325.
- ARTH 440. Modern Architecture** (3) Alternate years. Architecture of 19th and 20th centuries in Europe and America.
- ◆ **ARTH 441. American Art to the Civil War** (3) I. Painting, sculpture, and architecture of colonial era and United States to 1860; interrelationship between visual arts and significant issues in American culture.
- ARTH 442. American Art Since the Civil War** (3) II. Painting, sculpture, architecture, and photography of United States from 1860 to present. Special attention to artists and developments prior to W.W.II frequently overlooked in surveys of modern art.
- ARTH 445. Art of Ancient Greece** (3) I. Art and archaeology of Greece from preclassical Aegean world through Hellenistic period.
- ARTH 446. Art of Ancient Rome** (3) I. Sculpture, architecture and painting of ancient Etruria and Rome from eighth century B.C to fourth century A.D.
- ARTH 449. Medieval Art** (3) I. Alternate years. Art and architecture from Medievalization of Roman Empire through High Gothic period.
- ARTH 451. Renaissance and Baroque Art in Southern Europe** (3) I. Alternate years. Painting, sculpture and architecture in Italy and Spain from early 14th through 17th century.
- ARTH 454. Renaissance and Baroque Art in Northern Europe** (3) II. Alternate years. Art of England, Flanders, France, Germany, and Holland between 1400 and 1750, with primary emphasis on painting. Iconographic analyses as well as studies of stylistic developments.
- ARTH 455. Art of the 19th Century** (3) I. Painting and sculpture in 19th century, from neoclassicism through post-impressionism.
- ARTH 456. Art of the 20th Century** (3) II. Painting and sculpture in 20th century Europe and America, from Fauvism to the present.
- ARTH 458. Art of India and S.E. Asia** (3) I. Art and architecture in India and S.E. Asia from the earliest times to present.
- ARTH 459. Art of China and Japan** (3) II. Art and architecture of China and Japan from earliest cultures to present.
- ART 461. Sculpture III** (3) I, II. Advanced sculptural techniques and introduction to environmental and architectural scaling. Six studio contact hours. May be repeated to six credit hours. Prerequisite: ART 361. Lab fee.
- ART 463. Ceramics III** (3) I, II. Throwing of duplicate forms and functional ware. Glaze development through unity molecular formula. Individual projects determined upon consultation with instructor. Six studio hours. May be repeated to six hours. Prerequisite: ART 363. Lab fee.
- ART 465. Experimental Weaving** (3) I, II. Conceptual and functional work leading to development of personal direction in tapestry, multiple harness, ikat, rug or pattern weaving. Six studio hours. May be repeated to six hours. Prerequisite: ART 365 or consent of instructor. Lab fee.

ART 470. Individual Studies in Art (1-3).

Supervised individual problems in selected studio areas, art education, or art history research for student who has shown proficiency and marked degree of independence in other course work. May be repeated. Prerequisite: consent of director.

ART 471. Watercolor Painting III (3) I, II.

Individual development in watercolor medium emphasizing personal style and presentation. Students are encouraged to find self-directions and motivation in consultation with instructor. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 372.

ART 473. Oil/Acrylic Painting III (3) I, II.

For advanced student to pursue personal style and to concentrate on elements most important to them. Emphasis placed on individuality and arranged critiques. Six studio hours. May be repeated to 6 hours. Prerequisite: ART 374.

ART 477. Printmaking III (3) I, II.

Specialized advanced techniques in woodcuts silk screen, intaglio, or lithography. Six studio hours. May be repeated to six hours. Prerequisite: ART 377. Lab fee.

ARTE 482. Art for Special Needs Children

(3) I, II. Art strategies and media adaptations for exceptional populations in both regular and alternative educational settings. Uses of art for exceptional children in regular classroom. Not for arts and sciences credit. C/F hrs: 40.

ARTE 483. Teaching for Art Appreciation (3)

I, II. On demand. Role of art in society; development of instructional units on art history, art criticism, aesthetic responding. Prerequisite: senior standing. C/F hrs: 29.

ARTE 487. Studio Teaching Practicum (3) I,

II. Clinical teaching experience in School of Art Children's Program. Two credits if instructing, one credit if assisting. Prerequisite: permission of program director.

ARTT 488. Art Therapy: Practicum (10) I, II.

Supervised art therapy practicum therapeutic art experience in selected mental health, medical or educational facility. Weekly seminar. Prerequisite: ART 331 or consent of instructor.

ARTD 489. Design Internship (3-10) I, II,

summer. Studio experience in chosen area design firm. Credit approved upon submission of portfolio and written description of experience in consultation with firm; elective hours only. Prerequisites: 15 hours of design, consent of design staff.

ART 492. Student Teaching (1-10) I, II.

Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

ART 495. Workshop Topics in Art Education (1-3).

Summer. Special topics and intensive group studies relative to special needs of visual arts teachers. Prerequisites announced for each workshop.

ART 497. Student Teaching (1-10) I, II.

Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Arts and Sciences (A&S)**A&S 100. Seminar in Arts and Sciences**

(1-5) On demand. Interdisciplinary studies in arts and sciences or area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

A&S 300. Seminar in Arts and Sciences

(1-5) On demand. Interdisciplinary studies in arts and sciences or area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

A&S 410. Anthropological Theory and Methodology (3)

On demand. Anthropological theory and methodology from 19th century to the present.

A&S 480. Anthropological Senior Seminar

(3) On demand. Senior Seminar or directed field research.

Astronomy (ASTR)**ASTR 201. Modern Astronomy** (3) I, II,

summer. Recent astronomical discoveries; space travel among planets, birth and death of stars, supernovas, pulsars, black holes, x-ray stars, radio galaxies, quasars, extra-galactic phenomena, and origin of universe; some observational work.

ASTR 212. The Solar System (3) I.

Alternate years. Planetary, solar and space science. The moon, solar interior and atmosphere, solar/terrestrial relations, planetary structure and atmospheres, comets, asteroids, meteoroids, space exploration, origin of solar system.

ASTR 305. Life in the Universe (3) I.

Alternate years. Possibilities for life on other planets and other star systems, methods for communicating with other intelligent life, movement of human life into space.

ASTR 307. Understanding the Cosmos (3)

II. Alternate years. The universe as a whole, gravity, black holes, structure of space; other galaxies and the universal redshift, clusters of galaxies and other large-scale structure; big bang and steady state models; the three degree background radiation; first moments of creation.

ASTR 309. Astrophotography Laboratory

(1) II. Alternate years. Practice in the techniques of astronomical observation and photography using small (8 inch) telescopes and 35 mm cameras. One three-hour laboratory. Open only to majors or minors in physics or astronomy.

ASTR 321. Recent Progress in Astronomy

(2) I. Alternate years. Pulsar dynamics, gravitational collapse and black holes, galaxies, large-scale structure in the universe, active galaxies and quasars, cosmology. Two lecture-recitations. Prerequisite: PHYS 212; or PHYS 202 and 1 year of calculus. Not open to students with credit for PHYS 321.

ASTR 403. Stellar Structure and Evolution

(3) I. Alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states; red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 and consent of instructor. Not open to student with credit for PHYS 403.

Biological Sciences (BIOL)

◆***BIOL 101. Environment and Man** (3) I, II, summer. Basic ecology and current environmental problems of air, water, and land pollution; human reproduction and population dynamics. Two one-hour lectures and one two-hour laboratory. Not accepted toward biology major or minor.

◆***BIOL 104. Introduction to Biology** (4) I, II, summer. Basic concepts: the cell, metabolism, genetics, reproduction, development, evolution, ecology. Three one-hour lectures, one two-hour laboratory. Not accepted toward biology major or minor.

***BIOL 108. Life in the Sea** (3) I. Shore and ocean environments, variety and adaptations of marine life. Observations of marine organisms in marine laboratory. Three one-hour lectures. High school biology recommended. Not accepted toward biology major or minor.

***BIOL H109. Life in the Sea - Honors** (4) I. Offered in conjunction with BIOL 108 (see above description). Emphasis on interdisciplinary aspects and lab credit for marine laboratory study. Three one-hour lectures, one one-hour discussion and three hours lab arranged. Prerequisites: University honors standing and consent of instructor. Not accepted toward a biology major or minor.

◆***BIOL 110. Human Biology** (2) I. Basic human anatomy and physiology; how human organs function, in health and disease; and organ architecture as it relates to function. Two one-hour lectures. Not accepted toward a biology major or minor.

◆***BIOL 204. Concepts in Biology I** (5) I, II, summer (on demand). Introduction to ecology, evolution, and diversity. Three one-hour lectures, one three-hour lab and one two-hour lab.

◆***BIOL 205. Concepts in Biology II** (5) I, II, summer (on demand). Cellular and molecular biology, physiology and organ systems. Three one-hour lectures, one three-hour lab and one one-hour recitation.

◆***BIOL 220. Introduction to Horticulture** (4) I. The handling of cultivated plants including growth, development, propagation, pest control, pruning, grafting and basic landscape design. Two one-hour lectures, two two-hour labs. Prerequisite: BIOL 104, or BIOL 204 and 205, or consent of instructor.

***BIOL 270. Marine Closed Systems** (2) I.

Theories and techniques of maintaining and studying living marine animals in closed salt water systems, chemical and nutritional studies. One one-hour lecture-discussion and three hours of laboratory arranged. Prerequisites: BIOL 204 and CHEM 125 or equivalent and consent of instructor.

BIOL 299. Semester Transition Course

(1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.

***BIOL 301. Field Biology** (3) II. Identification and natural history of local organisms. Two one-hour lectures and one three-hour laboratory. Not open to arts and sciences biology majors except with consent of instructor. Prerequisite: three hours of biology.

***BIOL 310. Biology of Aging** (2) I Alternate years. Biological aspects of normal aging at the cellular, tissue, and organismal levels. Two one-hour lectures. Prerequisites: BIOL 104 or BIOL 204 and 332 or BIOL 411, or consent of instructor.

*BIOL 313. **Bacteriology** (4) I, II, summer (on demand). Methods of isolation, culture, and identification; physiological, genetic, and applied aspects of microorganisms. Two one-hour lectures, two two-hour laboratories. Prerequisites: BIOL 204 and 205 and one year of chemistry.

*BIOL 321. **Economic Biology I -- Insect Pests** (3) I. Biology, ecology and control of urban and other pest insects and related arthropods; environmental effects and physiological actions of insecticides; methodology and equipment used in pest management. Two one-hour lectures and one two-hour lab/discussion. Prerequisite: seven hours of biology.

*BIOL 322. **Economic Biology II -- Vertebrate Pests** (3) II. Biology, ecology and control of vertebrate pest animals; types and physiological action of avicides and rodenticides; epidemiology of zoonoses. Two one-hour lectures and one two-hour lab/discussion period. Prerequisite: seven hours of biology.

◆ *BIOL 331. **Human Anatomy and Physiology I** (3) I, II. Integumentary, skeletal, muscular and nervous systems. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 104 or 205.

◆ *BIOL 332. **Human Anatomy and Physiology II** (3) I, II. Circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 104 or BIOL 205 or consent of instructor.

*BIOL 343. **General Botany** (3) I. Survey of plant kingdom; morphology, evolution and economic importance of major plant groups. Two one-hour lectures and one two-hour lab. Prerequisite: four hours of biology.

*BIOL 350. **General Genetics** (2) I, II. Theoretical and applied aspects of inheritance. Molecular, chromosomal, and population levels of heredity in both prokaryotes and eukaryotes. Two one-hour lectures. Prerequisites: BIOL 204 and 205 or consent of instructor.

*BIOL 352. **Laboratory in Genetics** (1) I, II. Materials, methods, and terminology of genetics through experiments, problems, and demonstrations. One three-hour laboratory. Prerequisite or corequisite: BIOL 350.

*BIOL 354. **Population and Community Ecology** (2) I. Concepts of modern ecology. Fundamental ecological principles, life history patterns, structure and growth of populations, competition, niche theory, predation, succession, community structure and diversity. One one-hour lecture, one two-hour discussion. Prerequisites: BIOL 204 and 205 and MATH 131 or equivalent.

*BIOL 400. **Special Topics in Biology** (1-3) I, II, summer. Selected topics or subject areas in life sciences. Prerequisite: consent of instructor; maximum of two enrollments, each with different topic, permitted for credit.

*BIOL 401. **Introduction to Biological Research** (1-4) I, II, summer. For advanced student who has shown proficiency and marked degree of independence in work. Individual registration. Prerequisite: four semesters of biology and consent of instructor. May be repeated once, but only four hours may be applied toward major in biology. May be taken S/U for major credit.

*BIOL 405. **General Parasitology** (4) I, II. Morphologic, taxonomic, economic and other biological aspects of parasites. Three one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

*BIOL 406. **Arthropod Vectors and Parasites** (3) II. Biology and identification of disease-carrying, toxic, and parasitic arthropods. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205.

*BIOL 407. **Cell Biology** (4) I. Structure and physiology of cells, integrating the dynamics of cellular structures with metabolic functions and control. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

*BIOL 409. **Invertebrate Zoology I** (3) I. Classification, biology, and physiology of lower invertebrates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.

*BIOL 410. **Invertebrate Zoology II** (3) II. Classification, biology, and physiology of invertebrates through lower chordates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.

*BIOL 411. **Animal Physiology** (4) II. General and comparative animal physiology with emphasis on vertebrate systems. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205; organic chemistry and BIOL 407 recommended; or consent of instructor.

*BIOL 412. **Field Experience** (6) Summer only. Biotic communities in central and western U.S.; observation, identification of plants, animals; quantitative field work. Individual problems arranged for advanced students to a maximum of nine hours. Prerequisites: ten hours of biology and consent of instructor.

*BIOL 414. **Plant Systematics** (3) II. Elementary principles of plant identification, construction and use of keys and manuals, including winter plants, mosses, ferns, and spring flora. Two two-hour lecture-laboratories, one one-hour discussion. Prerequisite: BIOL 204 or consent of instructor.

*BIOL 415. **Plant Anatomy** (3) I. Development and mature structure of principal tissues of vascular plants; basic patterns and modifications of root, stem, leaf and flower. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.

*BIOL 416. **Morphology of Vascular Plants** (3) II. Comparative structure and evolutionary trends in vascular plants. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.

*BIOL 417. **Plant Physiology** (4) II. Plant growth and development, transport, photosynthesis, mineral nutrition, plant hormones and photoperiodism. Three one-hour lectures, one two-hour laboratory and additional laboratory by arrangement. Prerequisites: ten hours biology; one year of chemistry and BIOL 407 strongly recommended.

*BIOL 419. **Animal Histology** (3) II. Microscopical anatomy of the vertebrates, origins of tissues and organs, relation of structure to function. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

*BIOL 420. **Animal Behavior** (3) II. Genetics, physiology, development and evolution of behavior from an ecological perspective. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.

*BIOL 421. **Microbiology** (3) I. Eukaryotic and prokaryotic microbial life; methods of laboratory study, enrichment techniques and nutrition. Two one-hour lectures and one three-hour laboratory. Prerequisite: BIOL 313 or consent of instructor.

*BIOL 422. **Terrestrial Ecology** (3) I. Plants and animals in relation to the terrestrial environment. Two one-hour lecture-discussion and one three-hour laboratory. One weekend and one or more Saturday field trips required. Prerequisites: BIOL 204 and 205.

*BIOL 424. **Algology** (4) I. Taxonomy, ecology and morphology of the algae; emphasis on fresh-water algae. One two-hour lecture and two two-hour laboratories. Prerequisites: BIOL 204 and 205

*BIOL 425. **Limnology** (3) I. Physical, chemical and biological aspects of aquatic habitats. One two-hour lecture and one three-hour lab. Prerequisites: BIOL 204 and 205.

*BIOL 426. **Pathogenic Microbiology** (4) II. Morphologic, physiologic, and serologic characteristics of pathogenic microorganisms; their epidemiology; and the host-parasite interrelations resulting in infectious disease. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 313 and 439. (BIOL 439 may be taken concurrently.)

*BIOL 431. **Chordate Embryology** (5) I. Early developmental patterns in chordates; descriptive, comparative and theoretical considerations of embryology, early growth, development, form and pattern. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204 and 205 or consent of instructor.

*BIOL 432. **Comparative Anatomy of Chordates** (5) II. Comparative anatomy of representative chordates; evolutionary significance of structural and developmental changes and relationships of all organ systems. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204, 205 and 431 or consent of instructor.

*BIOL 434. **Paleobotany** (3) II. Alternate years. Morphology, evolution, geological distribution of fossil plants. Two one-hour lectures, one two-hour laboratory and several field trips. Prerequisites: BIOL 416 and historical geology or consent of instructor.

*BIOL 435. **Entomology** (4) I. Biology of insects: structure, physiology, ecology, systematics, evolution, and importance to man. Two one-hour lectures and two two-hour laboratories or equivalent in field trips. Prerequisites: BIOL 204 and 205.

*BIOL 438. **Endocrinology** (3) I. Physiological, metabolic actions of selected endocrine glands with emphasis on mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 411 and organic chemistry or consent of instructor; biochemistry recommended.

*BIOL 439. **Immunobiology** (4) II. Immune state in animals; laboratory work on detection and quantitation of antigens and antibodies. Two one-hour lectures, one three-hour laboratory and one one-hour laboratory-recitation. Prerequisites: BIOL 204 and 205. BIOL 350 and biochemistry recommended.

***BIOL 440. Aquatic Vascular Plants (3) I.** Alternate years. Techniques and methods of collecting, identifying, preserving aquatic vascular plants; biology, ecology and geography of the flora with respect to the history since glaciation are included. Two one-hour lectures and one two-hour laboratory and some Saturday field trips. Prerequisites: BIOL 204, 205 and 414 or consent of instructor.

***BIOL 443. Microbial Physiology (4) II.** Chemical composition, metabolic activities and nutrient requirements of microorganisms. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 313 and CHEM 308 or consent of instructor.

***BIOL 446. Scanning Electron Microscopy (4) II.** Theory and practice of scanning electron microscopy applicable to biological research. Critical point drying, sample coating techniques, transmitted electron detection, energy-dispersive x-ray microanalysis and computational analysis of data. Two one-hour lectures and two three-hour laboratories. Prerequisite: consent of instructor. BIOL 407 strongly recommended.

***BIOL 447. Microbial Genetics (2) I.** Alternate years. Molecular biology and genetic phenomena of bacteria and bacteriophage; mutagenesis and recombination. Two one-hour lectures. Prerequisite: four semesters of biology or consent of instructor; BIOL 350 and biochemistry recommended.

***BIOL 449. Cytogenetics (3) II.** Alternate years. Structure, organization and behavior of chromosomes; their function, modification, evolution, and role in speciation. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 350 or consent of instructor.

***BIOL 451. Evolution (2) II.** Historical evidence for evolution. Modern evolutionary theory: modes of selection, speciation, complex adaptations, micro-evolutionary trends. One one-hour lecture and one two-hour discussion. Prerequisite: BIOL 350.

***BIOL 470. Readings in Biological Sciences (1) I, II, summer.** Independent readings on topics of current or specialized interest in biology. Not more than two hours may be applied to major or minor requirements. Prerequisite: consent of instructor. May be taken S/U for major credit.

***BIOL 472. Ichthyology (3) I.** Alternate years. Life histories, systematics, physiology, ecology, evolution and biogeography of major groups of freshwater and marine fishes. Two one-hour lectures and one three-hour laboratory. Saturday and/or weekend field trips required. Prerequisites: BIOL 204 and 205.

***BIOL 473. Mammalogy (3) I.** Alternate years. Identification, natural history, evolution, zoogeography, ecology, physiology, behavior, with emphasis on Ohio mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.

***BIOL 474. Marine Biology (4) II.** Biological and oceanographic analysis of marine environment: ecology, populations, laboratory techniques. Three hours of lecture and three hours of laboratory arranged. Prerequisites: one year of chemistry, invertebrate zoology, and consent of instructor.

***BIOL 475. Marine Biology Field Trip (1) II.** Field trip to marine environment and research station with collection and study of living marine fauna and flora, oceanographic analysis of environments, study on sea-going vessel using trawl and dredge; discussions of marine research by laboratory staff; tour of fishery station. Prerequisite: BIOL 474. Consent of instructor and transportation fee required.

***BIOL 476. Herpetology (3) II.** Alternate years. Amphibian and reptile identification, habits, distribution, behavior. Two one-hour lectures and one three-hour laboratory or equivalent field work, all day and/or weekend field trip. Prerequisites: BIOL 204 and 205.

***BIOL 477. Ornithology (3) II.** Structure, physiology, behavior, ecology and migration of birds; identification in field and laboratory. Two one-hour lectures and one three-hour laboratory or equivalent field work, all-day or weekend field trip. Prerequisite: seven hours of biology.

***BIOL 478. Parasites of Marine Animals (6) Summer.** Study of parasites of marine animals. Prerequisite: sixteen hours of biology including parasitology. Taught at Gulf Coast Research Laboratory.

***BIOL 479. Marine Microbiology (5) Summer.** Role of microorganisms in the ecology of oceans and estuaries. Prerequisites: general microbiology or bacteriology and consent of instructor. Taught at Gulf Coast Research Laboratory.

***BIOL 480. Problems in Comparative Histology of Marine Organisms (1-6) Summer.** Histological preparation for light and electron microscopy studies of marine organisms including structural changes during life cycles and histopathology of diseased tissues. Prerequisites and credits to be set by instructor and Registrar at Gulf Coast Research Laboratory.

***BIOL 481. Marine Botany (4) Summer.** Survey based upon local examples of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification, and ecology. Prerequisites: BIOL 204 and 205 or consent of instructor. Taught at Gulf Coast Research Laboratory.

***BIOL 482. Introduction to Marine Zoology (4) Summer.** Introduction to marine environment with emphasis on local fauna. Weekly boat trips are made to collect specimens for laboratory study. Prerequisites: BIOL 204 and 205. Taught at Gulf Coast Research Laboratory.

***BIOL 484. Marine Invertebrate Zoology (6) Summer.** Anatomy, life history, distribution, and phylogenetic relationships of free-living marine invertebrates with emphasis on fauna of the Carolinian Region. Laboratory and field work included. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

***BIOL 485. Marine Vertebrate Zoology and Ichthyology (6) Summer.** Marine Chordata, including lower groups and mammals and birds with emphasis on fishes. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

***BIOL 487. Special Problems in Marine Science (1-6) Summer.** Supervised research on specific problems in all areas of marine science. Prerequisites and credits to be set by problem director and registrar at Gulf Coast Research Laboratory.

***BIOL 488. Topics in Marine Science (3-6) Summer.** Various marine courses such as marine ecology, salt marsh ecology, marine fisheries management, aquaculture, and others offered when taught by the Gulf Coast Research Laboratory staff. May be repeated for different titled topics as approved by the departmental marine science coordinator.

***BIOL 489. Biology Internship (1-3) I, II, summer.** For biological sciences majors in Cooperative Education program. Written report required. May be repeated with permission. Only three hours can apply toward biology major or minor. Prerequisite: consent of the departmental CEP representative. Graded S/U.

***BIOL 490. Seminar (1) I, II, summer.** Review of literature to acquaint student with research techniques and important work in various fields of biology. May be repeated, but only two hours may be applied toward a biology major. Prerequisite: ten hours of biology.

Business Administration (BA)

BA102. Introduction to Business (3) I, II. Market competition and change, nature and central role of management, our business environment. Open only to freshmen

◆ **BA 203. Business Communications (3) I, II, summer.** Principles of effective communion in writing business messages such as letters, memos, resumes, and reports. Emphasis on written communication skills for use in business and public organizations. Prerequisite: ENG 112.

BA 305. Integrating Career and Family. For description, see HOEC 305.

BA 325. Organization and Structure of Health Care Services Industry (3) I. Broad dimensions and areas of health care services organizations, internal administrative processes; perspectives on comprehensive health planning and policy administration; environmental linkages to community health services agencies.

BA 390. Introduction to Multinational Business (3) Environment encountered by U.S. enterprises engaged in business abroad; business practices and policies for foreign operations; international organizations.

◆ **BA 403. Government and Business (3).** Relations of all echelons of government to businessman; instances where government controls, regulates or otherwise exercises influence on actions of businessman.

BA 405. Business Policy and Strategy (3) I, II. Resource allocation through administrative policies; cases and simulation games. Prerequisites: senior standing and prior completion of MGT 300, MKT 300, FIN 300, OPRE 380 and MGT 360.

BA 406. New Enterprise Formation (3). Entrepreneurship; systematic decision making in small companies.

BA 429. Health Care Internship (6) I, II, summer. Specific internship in one of following areas of administration: hospital, nursing home, governmental health agency, voluntary health agency, health research project administration; and mental hospital administration; minimum of 20 credits of elective studies aimed at preparing for internship selected with advice and consent of adviser. Graded S/U.

BA 440. Management of International Operations (2). Accounting, finance, marketing, management, and operational policies; practices and strategies appropriate for foreign operations. Selected case studies for special problems. Prerequisite: BA 390.

BA 489. Business Internship (1-3). Not open to students with credit for other 409 courses in College of Business Administration. Program must be approved in advance by college internship director. Work experience must be completed within last year prior to graduation. Graded S/U.

BA 491. Studies in Business Administration (1-3) On demand. In-depth study of selected areas. Offered to individual student on lecture basis or in seminar depending on student needs and nature of material. May be repeated to eight hours.

BA 492. Studies in International Business Administration (1-3) On demand. Independent study on subjects related to international business not otherwise offered in curriculum. Reading, report, and research assignments. May be repeated to eight hours.

BA 495. Reading for Honors in Business Administration (1-3) I, II, summer. Supervised, independent program of reading and study. Prerequisites: 3.0 accumulative GPA and consent of department.

Business Education (BUSE)

◆ **BUSE 101. Business Mathematics** (3) I, II. Mathematics of finance, merchandising, and business ownership. Consumer application of business mathematics to banking, credit, interest, insurance, home ownership, wages, social security, and income taxes.

◆ **BUSE 111. Beginning Typewriting** (3) I, II. Touch typewriting for personal and business use with emphasis on skill development through technique improvement and problem typing. Four class periods. At Firelands, four class periods plus two hours lab.

◆ **BUSE 210. Advanced Typewriting** (3) I, II. Typewriting problems and projects; office production standards. Four class periods. Prerequisite: two semesters of high school typewriting or BUSE 111. At Firelands, four class periods plus two hours lab.

◆ **BUSE 211. Office Reprographics** (2) I, II. Uses, limitations, costs of modern office reproduction equipment, and processes including development of skill in use of fluid duplicator, mimeograph, offset, and copier. Three class periods. Prerequisite: BUSE 111. At Firelands, three class periods plus two hours lab.

◆ **BUSE 213. Beginning Shorthand** (3) I, II. Gregg Series 90 shorthand. Introduction to theory; transcription and speed development from 60 to 80 wpm. Four class periods. Prerequisite: BUSE 111 or concurrent registration in BUSE 111. At Firelands, four class periods plus two hours lab.

◆ **BUSE 215. Advanced Shorthand** (3) I, II. Development of speed in recording dictation from 80 to 100 wpm and transcription skills. Open to students with shorthand background in either Gregg or Century 21. Four class periods. Prerequisite: two semesters of high school shorthand or BUSE 213. At Firelands, four class periods plus two hours lab.

◆ **BUSE 220. Data Processing** (2) I, II. Processing of data using various printing and electronic calculators. Applications related to areas such as accounting, financing, and merchandising. Emphasis on development of speed and accuracy. Three class periods plus assigned laboratories. At Firelands, three class periods plus two hours lab.

◆ **BUSE 240. Business Problems of the Consumer** (3) I, II. Relationship of business practices to consumer activities. Developing consumer competencies in insurance, credit, savings, investments, housing, and estate planning. Basic economic principles underlying consumer decision-making.

◆ **BUSE 301. Word/Information Processing** (3) I, II. Principles of organization and operation of word/information processing installations; emphasis on language arts skills, text editing equipment, and human aspects of word/information processing. Prerequisite: BUSE 111 or its equivalent.

◆ **BUSE 311. Dictation and Transcription** (3) I, II. Dictation at speeds of 90 to 120 wpm; emphasis on rapid, accurate transcription. Dictation from specialized fields - medical, legal, business, and industry. Open to students with shorthand background in either Gregg or Century 21. Four class periods. Prerequisite: BUSE 215 or consent of instructor. At Firelands, four class periods plus two hours lab.

◆ **BUSE 314. Internship in Business Education** (1-2) I, II. Supervised experience in local offices or businesses. Sixty clock hours of work required for each hour of college credit. May be repeated up to three hours. No more than one hour of credit may be granted for work in any one office or business. At Firelands, 80 clock hours of work experience for each hour of credit. Graded S/U.

◆ **BUSE 321. Computer Data Processing** (2) I, II. Computer organization and computer programming; input-output options; assigned laboratories include keypunch, video terminal, and software applications.

◆ **BUSE 335. Office and Records Management Systems** (3) I, II. Procedures for control of information and business records. Analysis of office systems, work activities, and automation for improvement of office operations.

◆ **BUSE 352. Basic Business in Secondary Schools** (2) I, II. Principles, objectives, and methods of teaching basic business subjects; resource unit development. C/F hrs: 32.

◆ **BUSE 354. Accounting and Data Processing in Secondary Schools** (2) I, II. Principles, objectives, and methods of teaching accounting and data processing; review of the accounting cycle. C/F hrs: 26.

◆ **BUSE 356. Shorthand and Secretarial Practice in Secondary Schools** (1) I, II. Principles, objectives, and methods of teaching shorthand, transcription, and secretarial practice. C/F hrs: 30.

◆ **BUSE 358. Typewriting and Clerical Practice in Secondary Schools** (1) I, II. Principles, objectives, and methods of teaching typewriting, and clerical practice. C/F hrs: 30.

◆ **BUSE 364. Distributive Education in Secondary Schools** (3) I, II. Principles, objectives, and methods of teaching vocational and relative subject matter in distributive education.

◆ **BUSE 370. OWA Organization and Program Coordination** (3) I. Principles, objectives, and methods of teaching Occupational Work Adjustment; program philosophy, organization, coordination, student selection, and youth activities.

◆ **BUSE 395. Workshop in Business and Distributive Education** (1-3) Summer. Areas of current interest to teachers in business and distributive education. Possible areas include youth with special needs, cooperative education, vocational education for adults, intensive programs, post-secondary programs, and technical programs.

◆ **BUSE 401. Secretarial Administration** (3) I, II. Intensive study of procedures, skills, and knowledges basic to secretarial administrative positions; refinement of secretarial-management operations and office simulations. Prerequisites: BUSE 210 and BUSE 215.

◆ **BUSE 441. Consumer Economics in the Schools** (3) Alternate II, alternate summers. Need for consumer economics. Organization and integration of consumer economics in school programs. Consumer and business background information.

◆ **BUSE 455. Administrative Management** (3) I, II. Principles and practices of managing office personnel and operations. Selecting, developing, motivating, and appraising office employees. Office layout and design, work measurement, and work standards.

◆ **BUSE 461. Development of Instructional Materials in Distributive Education** (2) I. Methods of developing teaching materials in distributive education.

◆ **BUSE 462. Coordination in Cooperative Vocational Education** (2) II. Coordination in high school, post-high school, and adult education programs for vocational/distributive education. Not open to students taking BUSE 468. C/F hrs: 14.

◆ **BUSE 463. Community Planning in Adult Vocational Education** (3) I. Identification of adult needs, procedures for organizing and promoting adult programs in vocational education, selecting and training adult leaders, and financing adult programs.

◆ **BUSE 465. Development and Administration of Vocational Education** (3) II. Vocational education as sponsored by federal, state, and local legislation.

◆ **BUSE 468. Vocational Business and Office Education** (4) I, II. Program construction, organization, improvement, implementation, evaluation, and development of program guides for both intensive and cooperative vocational business and office education. C/F hrs: 28.

◆ **BUSE 469. OWA Curriculum and Instructional Procedures** (3) II. Curriculum development for vocational work experience programs including instructional learning packets, course of study, teaching methodology, and techniques.

◆ **BUSE 470. Studies in Business and Distributive Education** (1-2) I, II. Offered on individual, seminar, or lecture basis. Treatment of selected areas in depth depending on student needs and nature of material. May be repeated up to four hours. Prerequisite: consent of instructor. Graded S/U.

**The student with two semesters of high school typewriting and/or shorthand should enroll in BUSE 210 and/or BUSE 215. Those who choose to enroll in lower level courses will not receive credit toward graduation.

BUSE 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Business Management Technology (BAT)

†**BAT 100. Real Estate Principles and Practices** (2) II, summer. Foundation for further study and partial preparation for securing a salesperson's license. Contracts, financing, deed, title, escrow, closing estates, civil rights ethics, license law, leases, brokerage, total investment decision, appraisal fundamentals, and commercial-investment properties.

†**BAT 101. Real Estate Law** (2) I, II, summer. Basic legal framework for subject of real estate. The legal system, estates in land, contracts for the sale of land, deeds, agency relationship, regulations covering brokers and salespersons, evidence of title, mortgages and other liens, civil rights, landlord-tenant, public control of land use, organized forms of multiple ownership, wills and estates.

†**BAT 102. Introduction to Business Technology** (3) I, II. Business technical process including structure of business and functions of marketing, production, finance, personnel, technical processes of control, and responsibilities of business. Two hours lecture, three hours field study.

†**BAT 201. Human Resources in Management** (4) I. Basic concepts, principles and functions of management and personnel administration. Acquisition, development, utilization and maintenance of an effective work force; recruitment and selection, testing, interviewing, counseling, developing and compensating employees. Three hours of lecture, three hours field study.

†**BAT 203. Production Management** (3) II. Analyze operations of the firm. Fundamentals of production, design of production systems, operations, coordination and control of production activity, major analytical tools for management. Two hours lecture, three hours field study. Prerequisite or corequisite: STAT 211.

†**BAT 204. Marketing** (3) I. Introduction of organization, management, and practice of marketing by business firms. Two hours lecture, three hours field study.

†**BAT 205. Human Relations in Business** (3) I, II. Principles of effective management of human resources. Analysis of reactions, interactions, attitudes and activities of persons within goal-seeking organizations; leadership, morale, goal-oriented behavior, relationships between supervisors and subordinates. Two hours lecture, three hours field study.

†**BAT 207. Business Finance** (3) II. Funds allocation and acquisition process of the firm, financial planning, capital budgeting, capital structure, longterm and shortterm financing. Two hours lecture, three hours field study.

†**BAT 208. Advertising** (3) II. Design, layout, production and placement of advertising, historical and cultural precedents of modern advertising. Prerequisite: BAT 204 or permission of instructor.

†**BAT 210. Principles of Banking** (2) I, II. Fundamentals of banking functions, language and documents of banking, check processing, teller functions, deposit function, trust services, bank bookkeeping and bank loans and investments.

†**BAT 211. Money and Banking** (3) I. Basic monetary theory and policy, emphasis on function of the banking system in the economy; structure of commercial banking system, creation of bank deposits, Federal Reserve policy and operations. Treasury money market operations, the pricing of money, and international financing problems.

†**BAT 212. Installment Credit** (2) I, II. Basic knowledge of installment credit and its administration; emphasis on establishing credit, obtaining credit information, and loan servicing and administration; inventory loans, rate structure and advertising.

†**BAT 213. Real Estate Finance** (3) I, II. Home mortgage investment by savings and commercial banks; channeling of money into mortgages, home mortgage lendings, special purpose mortgages, and the administration of mortgage accounts.

†**BAT 214. Banking Law** (2) I, II. Consumer protection, real property, personal property and sales, the uniform commercial code, negotiable instruments and bank collections, and secured financing.

†**BAT 215. Real Estate Appraisal** (2) I, II, summer. Three basic techniques of appraising – market comparison, cost of replacement, and income capitalization. The appraising process, understanding value, basic valuation principles, general market analysis, sites and improvements analysis, market data approach, income approach, and reconciliation and the final value estimate. Prerequisites: BAT 100 and BAT 101 or permission of instructor.

†**BAT 216. Real Estate Finance** (2) I, II, summer. Instruments of real estate finance such as mortgages, lien and title theories, leases and land contracts. Other topics including mortgage payment patterns, single family properties, mortgage market, major lenders, government and real estate, and special topics. Prerequisites: BAT 100 and BAT 102 or permission of instructor.

†**BAT 217. Real Estate Brokerage** (2) II Alternate years. Operation of a brokerage business. Includes the opportunity to expand knowledge of broker-client relationship, office management, selection of sales personnel, training salespersons, and a policy and procedure manual for the brokerage office. Prerequisites: BAT 100 and BAT 101 or permission of instructor.

†**BAT 218. Special Topics in Real Estate** (2) II. Alternate years. A sample property case study is covered. Other subjects include single family housing design and construction, residential land development, condominiums and cooperatives, farm, rural, commercial, and industrial real estate, federal taxation of real estate, and federal, state, and local regulatory controls. Prerequisite: BAT 100, 101, 215, 216 or permission of instructor.

†**BAT 250. Marketing Research** (2) Summer. Secondary information sources and technique alternatives, sampling, response, and interpretive problems. Computer analysis introduced. Prerequisite: BAT 204 or consent of instructor.

†**BAT 290. Studies in Business** (1-3) I, II, summer. Business study projects, seminars and other forums in the fields of marketing, personnel, management, human relations, production, finance, computer science, law or economics. Prerequisites: sophomore standing and appropriate prior course work.

†**BAT 291. Field Experience** (1-3) I, II, summer. Ten weeks of work in an appropriate business field to be decided in consultation with student's adviser. Prerequisite: permission of work supervisor and adviser.

Center for Educational Options (CEO)

CEO 101H. Evaluating Social Controversies (5) I, II. Interdisciplinary inquiry in social sciences. Analysis of arguments through assumption, ambiguity, data, and fallacies; formulation of conclusions and alternative inferences; value assumptions and decision making.

◆**CEO 121. Transition Course** (1) I, summer. Transition to University life through orientation to university facilities and options; activities stressing study skills and personal growth.

CEO 124. State Government (1) Summer. Issues of government, governmental processes at local and state levels, societal and governmental influences on electoral process. For Boys State students.

◆**CEO 131. Career Planning and Decision Making** (2) I, II, summer. Intense investigation of self in relation to academic and career planning, and opportunities within world of work; decision-making-theories and career research activities.

◆**CEO: 201. Independent Studies** (1-15) I, II, summer. Research or project designed by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

CEO 401. Independent Studies (1-15) I, II, summer. Research or project designed by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

CEO H140. Honors Seminar: Social Sciences (4) I. Interdisciplinary social science seminar that integrates at least two different social sciences. Students select one discipline to emphasize, e.g., history or sociology, but one class a week will be devoted to integrating the disciplines involved. Content and skills will relate to both specific disciplines involved. Content and skills will relate to both specific disciplines and social sciences in general. Satisfies social science group credit. Prerequisite: admission to the honors program or permission of honors director.

CEO H160. Honors Seminar: Humanities (4) II. Interdisciplinary humanities seminar that integrates at least two different humanities. Students select one discipline to emphasize, e.g., art, literature, but one class a week will be devoted to integrating all disciplines involved. Content and skills will relate to both specific disciplines and humanities in general. Satisfies humanities group credit. Prerequisite: admission to the honors program or permission of honors director.

Chemistry (CHEM)

◆ **CHEM 100. Introduction to Chemistry** (3) I, II, summer. Non-laboratory examination of basic chemical concepts and role of chemistry in modern society. For students not majoring in sciences. Not counted toward chemistry major or minor.

CHEM 104. Chemistry for Elementary Teachers (2) I, II. Non-laboratory examination of basic chemical concepts, vocabulary and history as well as role of chemistry in modern society. Not counted toward chemistry major or minor. Prerequisite: PHYS 101 or PHYS 104.

◆ **CHEM 115. Elementary Chemistry** (4) I, II, summer. General chemistry and introduction to organic chemistry. Not accepted toward chemistry major or minor. Three lectures, one three-hour laboratory. Prerequisites: two years of high school science; high school algebra or its equivalent.

◆ **CHEM 116. Elementary Organic and Biochemistry** (4) II, summer. CHEM 115 continued. Not accepted toward chemistry major or minor. Three lectures, one three-hour laboratory. Prerequisite: CHEM 115.

◆ **CHEM 125. General Chemistry** (5) I, II, summer. Chemistry sequence for students majoring in sciences, the liberal arts or in pre-medical programs. Three lectures, one recitation, one three-hour laboratory. Prerequisite: high school chemistry, algebra, and geometry, or CHEM 115. (Credit for graduation for CHEM 115 or CHEM 125, but not both.)

◆ **CHEM 126. General Chemistry** (5) II, summer. CHEM 125 continued, including qualitative analysis. Three lectures, one recitation, one three-hour of laboratory. Prerequisite: "C" or better in CHEM 125 or CHEM 135.

CHEM 135. General Chemistry (5) I. General chemistry sequence for well-prepared student. Three lectures, one recitation, one three-hour of laboratory. Prerequisites: high school chemistry and consent of instructor. Corequisite: MATH 130 or MATH 131.

CHEM 136. General Chemistry (5) II. CHEM 135 continued. Emphasis on quantitative procedures in laboratory. Three lectures, two three-hour laboratories. Prerequisite: "C" or better in CHEM 135.

CHEM 200. Bio-Organic Chemistry and You (2) I, II. Non-mathematical course for non-scientist in topics of contemporary concern. Effect of chemistry on society, chemistry for the consumer, regulatory agencies, chemistry in the news, and other topics in organic and biochemistry. Not open to freshmen; not accepted toward chemistry major or minor. No prerequisites.

◆ **CHEM 201. Quantitative Chemical Analysis** (3) I, II, summer. Theory and practice of quantitative analytical procedures, volumetric and gravimetric methods. Two lectures, one three-hour laboratory. Prerequisite: CHEM 126.

CHEM 299. Semester Transition Course

◆ **CHEM 306. Organic Chemistry** (4) I, II, summer. For students whose program does not require full-year course. Not accepted toward a chemistry major. Three lectures, one three-hour laboratory. Prerequisite: CHEM 126 or CHEM 136.

◆ **CHEM 308. Basic Biochemistry** (3) I, II. Structure, chemical, physical, and metabolic properties of bioorganic molecules. For students whose program does not require full-year course. Prerequisite: CHEM 306. BIOL 104 and CHEM 201 recommended.

◆ **CHEM 309. Elementary Biochemistry Laboratory** (1) I, II. Basic biochemical techniques. One three-hour laboratory. Prerequisite or corequisite: CHEM 308 or CHEM 445.

CHEM 313. Special Topics in Chemistry (1-3) I, II, summer. Specific topics of current interest in chemistry. Not applicable toward minimum 32-hour major or 20-hour minor. May be repeated with different topics.

CHEM 321. Survey of Instrumental Analysis (3) II. Elementary instrumental methods of analysis. Primarily for biology and med-tech majors. Two lectures, three hours of laboratory. Prerequisites: CHEM 201 and either PHYS 212 or PHYS 202.

CHEM 341. Organic Chemistry (5) I, summer. Structure and reactivity of organic substances. Four lectures, one three-hour laboratory. Prerequisite: CHEM 126 or CHEM 136.

CHEM 342. Organic Chemistry (5) II, summer. CHEM 341 continued. Three lectures, two three-hour laboratories. Prerequisite: "C" or better in CHEM 341.

CHEM 352. Physical Chemistry (3) I. For students whose program does not require full-year course. Prerequisites: CHEM 201 (or CHEM 136) and MATH 130. MATH 131 recommended. Prerequisite or corequisite: PHYS 202 or PHYS 212.

CHEM 395. Workshop on Current Topics (1-3). Intensive course on selected topics. May be repeated if topics differ. Does not apply toward first 20 hours of minor or first 32 hours of major.

CHEM 402. Numerical Methods in Chemistry (1) II. Use of computers and numerical methods in chemistry; survey of computer graphics and microcomputer-based instrumentation in chemical research. Prerequisite or corequisite: CHEM 405.

CHEM 405. Physical Chemistry (4) I, summer. Thermodynamics and quantum chemistry. Prerequisite: CHEM 201 (or CHEM 136) and MATH 232, and either PHYS 212 or PHYS 202.

CHEM 406. Physical Chemistry (4) II, summer. CHEM 405 continued. Electrochemistry, kinetics, spectroscopy and molecular structure. Prerequisite: CHEM 405.

CHEM 407. Integrated Analytical and Physical Laboratory (2) I. Principles of measurement; spectral, chromatographic and electroanalytical techniques; thermodynamic and kinetic measurements; computerized data acquisition. Two three-hour laboratories. Prerequisite or corequisite: CHEM 405.

CHEM 408. Integrated Analytical and Physical Laboratory (2) II. CHEM 407 continued. Prerequisite: CHEM 407; prerequisite or corequisite: CHEM 406.

CHEM 413. Special Problems (1-3) I, II, summer. Independent study and research. Three to nine hours of laboratory, one half-hour conference each week. Not applicable toward minimum requirements of major or minor. Prerequisite: consent of instructor, 20 hours of CHEM or consent of department, 2.5 minimum overall GPA. May be repeated, but no more than six hours credit may be applied toward degree.

CHEM 442. Organic Reaction Mechanisms (3) II. Fundamentals of organic reaction mechanisms and methods for their elucidation. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.

CHEM 445. General Biochemistry (3) I. Structure, function, chemical and physical properties of bioorganic molecules. Prerequisites: CHEM 342 and either CHEM 352 or CHEM 406, or permission of instructor.

CHEM 446. Biochemistry Laboratory (1) I. Experimental techniques in biochemistry. Three-hour laboratory. Prerequisite or corequisite: CHEM 445.

CHEM 447. General Biochemistry (3) II. Metabolism, energetics, and regulation of bioorganic molecules. Prerequisite: CHEM 445.

CHEM 449. Advanced Biochemistry Laboratory (2) II. Research techniques in biochemistry. Two three-hour laboratories. Prerequisite: CHEM 446 or permission of instructor.

CHEM 453. Environmental Chemistry (2) I. Alternate years. Sources, reactions, transport, and fates of chemical species in water, soil and air environments. Prerequisites: CHEM 136 (or CHEM 201), CHEM 306 (or CHEM 342), and CHEM 352 (or PHYS 215).

CHEM 454. Instrumental Methods of Analysis (3) II. Theory of instrumental methods of analysis including electroanalytical, spectroscopic and chromatographic methods. Prerequisite: CHEM 408 or consent of instructor.

CHEM 463. Advanced Inorganic Chemistry (4) I. Chemical bonding, stereochemistry, acid-base chemistry, periodicity, nonmetal and transition metal chemistry, organometallic and bioinorganic chemistry. Prerequisite: CHEM 342, CHEM 406.

CHEM 466. Spectroscopic Methods in Organic Chemistry (2) I. Organic structure determination by spectroscopic techniques, with emphasis on infrared, ultraviolet, and nuclear magnetic resonance spectroscopy, and mass spectrometry. Also includes a brief introduction to related spectroscopic methods. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.

CHEM 467. Environmental Toxicology (4) I. Limited to students in environmental toxicology planned program or by permission of instructor. Three lectures, one three-hour laboratory.

CHEM 468. Environmental Toxicology (4) II. CHEM 467 continued. Three lectures, one three-hour laboratory. Prerequisite: CHEM 467.

CHEM 483. Advanced Topics in Chemistry (1-3) I, II, summer. Rigorous study of specific topics of current interest. Not applicable toward minimum 32-hour major or 20-hour minor. May be repeated with different topics. Prerequisite: CHEM 342 or consent of instructor.

College Student Personnel (CSP)

CSP 480. Seminar in College Student Personnel (1-3) II. Analysis of issues, practices, and trends in post-secondary student personnel work.

CSP 481. Introduction to Residence Life for the Paraprofessional (1) II. Philosophy, skills, competencies of program development and management of university residence units.

CSP 482. Peer Advising Skills (1) I, II. Development of fundamental human relations skills used by peer advisers: listening, interviewing, information sharing, decision making and problem solving.

CSP 485. Peer Advising Practicum (1-2) I, II. Supervised peer advising experience in appropriate predesignated setting. May be repeated with approval of department. Prerequisite: CSP 482 or consent of instructor. Graded S/U.

Communication Disorders (CDIS)

(See speech communication)

Computer Science (CS)

◆ **CS 100. Computer Basics** (3) I, II, summer. Computer technology and related social issues. Students do programming using BASIC language. Hardware, software, applications in diverse areas. Problems concerning computerized services, data banks, governmental controls. Not open to students with credit in another CS or MIS course. Credit not applicable toward major or minor in computer science.

◆ **CS 101. Introduction to Programming** (3) I, II, summer. Algorithms; programming in FORTRAN; introduction to computer organization; structured programming techniques. Several programming assignments required. For students without extensive programming experience. Not open to students with credit for another CS or MIS course. Prerequisite: two years of high school algebra or MATH 095 or 096.

◆ **CS 103. FORTRAN Programming** (3) I, II, summer. FORTRAN for students with extensive programming experience. Algorithms; structured programming techniques. Several programming assignments required. Prerequisite: prior programming experience in any computer language. Not open to students with credit for CS 101.

◆ **CS 180. Introduction to Programming** (1-3). Programming techniques in particular language. Credit not applicable toward major or minor requirements. May be repeated up to total of three hours, with consent of department.

◆ **CS 201. Assembler Language Programming** (3) I, summer. Basic computer organization; data representations; addressing techniques; subroutines and macros. IBM 370 assembler language. Prerequisite: Grade of "C" or better in CS 101 or CS 103.

◆ **CS 202. Systems Programming** (3) II. Principles of systems programming, including reentrancy and I/O concepts. Techniques for developing loaders, assemblers, and macro processors. Large implementation project required. Prerequisite: CS 201.

CS 205. Advanced Programming Techniques (3) II. Programming in PASCAL. File processing, including sequential and random files. Recursion. Large program development. Linked lists using arrays. Interactive text editing and utility routines. Prerequisite: Grade of "C" or better in CS 101 or CS 103.

CS 260. Business Programming Principles (3) I, II. Assembler language programming; hardware/software technology. Does not apply to major or minor in computer science. Not open to students with credit for CS 201. Prerequisite: MIS 200.

CS 305. Data Structures (3) I. Implementation and applications of commonly used data structures, including stacks, queues, trees, and linked lists. Storage allocation and collection; hashing techniques; searching and sorting. Use of PASCAL language, including pointer variables. Prerequisites: CS 201 and CS 205.

CS 306. Programming Languages (3) II. BNF description of programming languages. Significant features of existing programming languages. Structure and comparison of languages for numeric and nonnumeric computation. Languages studied typically include PL/1, SNOBOL, and APL. Prerequisite: CS 205.

CS 307. Computer Organization (3) II. Components of digital computer hardware: flip-flops, registers, adders, memory devices. Computer system organization: control structure, addressing, interrupts, I/O. Prerequisite: CS 201.

CS 313. Elementary Mathematical Logic (3). Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for MATH 313.

◆ **CS 360. COBOL Programming** (3) I, II, summer. COBOL programming language and techniques for use; report generation; table handling; sorting; sequential and random-access data files; debugging techniques; COBOL standards. Prerequisite: Grade of "C" or better in CS 101 or CS 103 or CS 260.

CS 390. Practicum in Computer Science (1-6). For students working in internship or co-op programs. Written report required. Does not apply to major or minor in computer science. May be repeated to six hours. Prerequisite: consent of department. Graded S/U.

CS 407. Advanced Computer Organization (3). Evolution of computer systems. Detailed studies of several selected computer organizations; comparison of functional components and overall designs. Prerequisite: CS 307.

CS 408. Operating Systems (3) I. Structure of operating systems. Physical input-output, buffering, interrupt processing. Memory, processor, device, information management; resource management interdependencies. Prerequisites: CS 202 and CS 306.

CS 409. Language Design and Implementation (3) I. Fundamental concepts of languages. Processors, data, operations, sequence control, data control, storage management, syntax, translation. Prerequisites: CS 202 and CS 306.

CS 410. Formal Language Theory (3) I. Various types of languages (context-sensitive, context-free, finite-state). Discussion of recognition devices such as pushdown automata, linear bounded automata, and Turing Machines. Some topics of current interest.

CS 420. Artificial Intelligence and Heuristic Programming (3) II. Definition of heuristic vs. algorithmic methods. Topics from areas of game playing; theorem proving, pattern recognition, question answering programs, natural language processing. Programming project or report usually required. Prerequisite: CS 305.

CS 425. Computer Graphics (3) I. Graphic I-O devices; 2-dimensional and 3-dimensional display techniques; display processors; clipping and windowing; hidden line removal; data structures for graphics. Prerequisites: CS 205 and MATH 222.

CS 428. Microcomputer Systems (3) II. Architecture of microcomputers; programming techniques for small computers; operating systems; I/O techniques. Detailed study of a specific microcomputer system. Prerequisite: CS 202.

CS 440. Optimization Techniques (3) I. Linear programming, game theory, PERT, network analysis; duality theory and sensitivity analysis; applications. Computer programs written to implement several techniques. Prerequisites: CS 101 or 103 and MATH 131.

CS 442. Techniques of Simulation (3) II. Principles of simulation and application of several simulation languages to both continuous and discrete systems. Prerequisites: CS 101 or 103 and MATH 131.

CS 451. Numerical Analysis (3) I. Development of numerical methods that are efficient, accurate, and suitable for high-speed digital computation; zeros of polynomial and transcendental functions; numerical differentiation and integration; solution of linear systems by direct and iterative methods. Selected algorithms programmed for solution on computer. Prerequisites: CS 101 or CS 103, and MATH 332. Not open to students with credit for MATH 451.

CS 452. Numerical Analysis (3) II. Matrix inversion, computation of eigenvalues and eigenvectors of matrices; least squares, trigonometric, and Chebyshev approximation; numerical solution of initial value and boundary value problems in ordinary differential equations, numerical solution of partial differential equations. Prerequisites: CS 101 or CS 103, and MATH 337. Not open to students with credit for MATH 452.

CS 462. Database Management Systems (3) I, II, summer. Logical aspects of database processing. Concepts of organizing data into integrated database. Hierarchical, network, and relational approaches studied. Prerequisite: CS 360.

CS 464. Software Development (3) II. In-depth study of all aspects of software development process: user requirements, specifications, design, coding, testing, maintenance, documentation, management. Team development of large software project. Prerequisites: CS 201 and CS 205.

CS 480. Seminar in Computer Applications (1-3). Prerequisite: consent of instructor. May be repeated up to six hours.

CS 490. Independent Project (1-3). Readings and/or computer implementations in area of interest to individual student. Does not apply to major or minor in computer science. May be repeated up to six hours. Graded S/U.

Computer Science Technology (CST)

† **CST 200. Computer Logic and Flowcharting** (1) I, II, summer. Thinking through and planning solutions to computer related programs. Computer terminology and equipment also investigated. Not open to students with credit from MIS 200 or other CST or CS classes.

† **CST 171. Terminal Operations** (1) I, II, summer. Remote entry terminals, operating-systems, commanding line, operation of local terminal interpreter related to operation of RJE; visits to operation site. Three hours of laboratory. Hours arranged. Prerequisites: enrollment in CST program and permission of instructor.

† **CST 221. Systems and Procedures I** (1) I. Analysis of business information systems; designing a business system; file design, audit controls. Techniques for implementing basic systems documentation, and business forms control. One hour lecture, two hours laboratory. To be taken concurrently with CS 360. Lab fee.

† **CST 231. Techniques of RPG Programming** (4) II, summer. Basic elements in programming techniques using the RPG II Language. Further work on file organization, table look-up, JCL, chaining, records, and error analysis. A problem-oriented language to maximize time spent on solutions rather than machine characteristics. Two hours lecture, seven hours laboratory. Lab fee.

†**CST 232. Systems and Procedures II** (4) II. Continued study of principles in the design and application of data processing systems in business. Analysis of cost controls, operations research, and the integrated management information system. Two hours lecture, seven hours laboratory. Prerequisites: CST 221 and CS 360, or consent of instructor. Lab fee.

†**CST 250. Diagnostic Assembler** (3) Summer. A survey of assembler language programming techniques for use on microcomputers. Instruction will reflect the use of the Z-80 and 8085 microprocessors. Lab fee.

†**CST 260. Advanced Electronic Data Processing** (4) I, II, summer. Extended programming techniques using the BASIC language and word processing; accessing files, arrays, systems analysis, system design, string operations, layout forms and structured programming. Two hours lecture, seven hours laboratory. Prerequisite: MIS 200 or CS 104.

†**CST 291. Student Intern Program** (3) I, II, summer. Ten weeks of paid field work in data processing applications under the supervision of a governmental, industrial, or private business concern. Prerequisite: permission of instructor.

Construction Technology (CONS)

(See technology)

Criminal Justice (CRJU)

CRJU 210. Introduction to Criminal Justice (3) I, summer. Philosophical, historical, operational aspects of criminal justice agencies and processes in a framework of social control in a democracy. Crime and corrections problems and response of criminal justice agencies to them.

CRJU 220. Law Enforcement Organization and Administration (3) I. Organization and management applied to law enforcement agencies. Theoretical and practical aspects of management factors such as organization, decision making, values, human relations, power. Prerequisite or corequisite: CRJU 210.

CRJU 230. Criminal Investigations (3) I. Investigator's role in criminal investigations. Theoretical considerations of that role in relation to other police activities. Techniques of preservation of evidence, sources of information, processes of specialized investigations. Prerequisite or corequisite: CRJU 210.

CRJU 240. Police-Community Relations (3) I. Relationships between community and police; attitudes and perceptions; emphasis on human relations methodology in improving relationships; role of police administrator. Prerequisites or corequisites: CRJU 210 and SOC 101 and PSYC 201.

CRJU 310. Criminal Law (3) I. Elements of proof in crimes of frequent concern in law enforcement; emphasis on principal rules of criminal liability, penal statutes, current case law. Law of arrest, search and seizure; theoretical consideration of criminalization of conduct and appropriateness of criminal sanctions. Prerequisite: for law enforcement majors, CRJU 210; for others, permission of instructor.

CRJU 470. Independent Study in Criminal Justice (1-3) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: consent of program director. May be repeated.

CRJU 480. Special Problems in Criminal Justice (3) Summer. Consideration and evaluation of selected policies and practices in criminal justice field, both law enforcement and corrections; attempt to integrate criminal justice field and to focus on common problems and concerns. Problems of theoretical and practical nonconvergence. Individual research interests explored, formalized, reported. Required of all CRJU majors. Prerequisites: senior standing and completion of 25 hours of CRJU courses, or equivalent.

CRJU 491. Practicum (1-12) I, II, summer. Experience working in law enforcement and/or correction agency under supervision. Emphasis on practice rather than observation. May be repeated. Prerequisite: permission of program director. Graded S/U.

Design Technology (DESN)

(See technology)

Economics (ECON)

ECON 100. Development of the American Economy (3) I, II. Study from colonial times to present to provide perspective for understanding current economic problems. How Americans lived, changes in population and income distribution, agriculture, industry, technological change, labor, transportation, money and banking, foreign trade, role of government.

◆ **ECON 200. Introduction to Economics** (3) I, II. Alternative economic goals; economic growth, full employment, price stability, fair income distribution, economic security, economic freedom, consumer sovereignty, efficiency. Recommended for students taking only one ECON course. Not open to students required to complete ECON 202.

◆ **ECON 202. Principles of Economics** (3) I, II. Demand and supply, price theory; product and factor markets; income distribution; comparative systems; current problems and public policy. Recommended before ECON 203. Prerequisite: sophomore standing.

◆ **ECON 203. Principles of Economics** (3) I, II. American economy, national income and employment, banking system, monetary and fiscal policy; economic growth and development; international economics. Prerequisite: sophomore standing. ECON 202 recommended.

ECON 302. Intermediate Microeconomic Theory (3) I, II. Theory of demand, of the firm, of production and distribution; economics of pure competition. Factor price determination. Prerequisites: ECON 202 and ECON 203.

ECON 303. Intermediate Macroeconomic Theory (3) I, II. Concepts and measurement of national income. Analysis of forces determining level of national income and employment, price level, and rate of economic growth. Prerequisites: ECON 202 and ECON 203.

ECON 304. Managerial Economics (3) I, II. Application of economic theory to decision-making problems of the firm; demand analysis and sales forecasting; theory of production and cost analysis; pricing practices and policies; capital budgeting. Prerequisites: ECON 202 and ECON 203 and STAT 212.

ECON 311. Money, Banking, and Public Policy (3) I, II. Nature and functions of money and commercial banking system. Means of monetary regulation and control. Role of money and monetary policy in affecting total economic activity. Prerequisites: ECON 202 and ECON 203.

ECON 321. Labor Economics (3) I, II. Economics of manpower employment and labor market; labor organizations, collective bargaining, regulation of labor by government, wage determination, unemployment and social security. Prerequisites: ECON 202 and ECON 203.

ECON 323. Poverty, Unemployment, and Income Maintenance (3) II. Structural and cyclical unemployment, alternative responses to poverty, evaluation of training programs and welfare schemes. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 331. Public Finance (3) I, II. Survey of government finance. Public expenditures, taxation, and debt; emphasis on federal level. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 332. State and Local Government Finance (3) I or II. Economic functions of state and local governments; revenue sources, expenditures, debt, and intergovernmental fiscal relations. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 351. International Trade and Finance (3) I. Structure and regulation of foreign trade, mechanics of international finance, new elements in U.S. foreign trade. Prerequisites: ECON 202 and ECON 203.

ECON 400. Mathematics for Economists (3) I. Elementary mathematical methods and basic applications to economic theory. Not open to students who have had MATH 231 or above.

ECON 401. Mathematical Economics (3) II. Economic theory in mathematical context; microeconomic and macroeconomic models, their structure and analysis. Constrained optimization. Prerequisites: ECON 400 or equivalent of calculus, and ECON 302 or ECON 303.

ECON 402. Econometrics (3) II. Statistical techniques used to measure economic data and to test validity of theoretical models. Prerequisites: STAT 212 and ECON 400, or equivalent; or consent of instructor.

ECON 404. Business Conditions (3) II. Components of gross national product, statistical measurement of business fluctuations. Determinants of the level of economic activity. Keynesian, monetarist and other theories of business cycles. Methods of macroeconomic forecasting. Prerequisites: ECON 303 or ECON 311, and STAT 212.

ECON 414. Monetary and Fiscal Policy (3) II. Objectives, means, and analysis of monetary and fiscal control; effect on total economic activity. Prerequisite: ECON 303 or ECON 311.

ECON 422. Labor Relations Policy (3) I. Economic effects of government policy towards organized labor. Collective bargaining implications of pertinent federal and state legislation. Prerequisite: ECON 203.

ECON 423. Labor-Management Relations (3) II. Employer-employee relations; collective bargaining process; conciliation, mediation, arbitration procedures. Prerequisite: ECON 203.

ECON 424. Income, Wages, and Welfare: Analysis and Policy (3) On demand. Theories of income and wage determination. Effect of employers and labor organizations and economic effects of various income policies. Prerequisites: ECON 202 and ECON 203.

ECON 425. Health Care Economics (3) On demand. Economic analysis of health care delivery system in U.S. Consumer's demand for health care, supply of health care by physicians and hospitals, evaluation of policy issues relating to health care. Prerequisites: ECON 202 and ECON 203.

ECON 435. Economics of Energy and the Environment (3) On demand. Methods and research techniques applicable to energy and environmental problems; evaluation of alternative public economic policies for energy and environmental control. Prerequisites: ECON 202 and ECON 203.

ECON 436. Economics of Public Expenditures (3) I. Purposes and economic effects of governmental expenditures; budgeting techniques and their effects on resource allocation. Prerequisites: ECON 202 and ECON 203.

ECON 441. Real Estate Finance and Capital Markets (3) II. Market factors affecting residential property values, private sources of funds, role of governmental agencies in residential markets. Prerequisites: ECON 202 and ECON 203. Not for arts and sciences credit.

ECON 447. Economics of Regulated Industries (3) II. Historical development of public regulation of certain industries, including transportation; methods of regulation and evaluation of public policy towards regulated industries. Prerequisites: ECON 202 and ECON 203.

ECON 451. International Economics (3) I. Theory of international economics; international trade as factor in national income; significance of international investment, public policies to promote trade, international economic cooperation. Prerequisite: ECON 351 or consent of instructor.

ECON 452. International Monetary Economics (3) II. Alternative international monetary systems; emphasis on present system. Prerequisites: ECON 311 and ECON 351, or consent of instructor.

ECON 454. Economic Development (3) I. Obstacles to and current efforts for promotion of economic growth in emerging nations. Prerequisite: ECON 202 or consent of instructor.

ECON 460. Regional Economics (3) I. Location and land use theories, central place theory, tools of regional analysis, regional growth theory, and regional public policy issues. Prerequisites: ECON 202 and ECON 203.

ECON 462. Urban Economics (3) II. Urban spatial theory and analysis, economic analysis of urban problems including poverty, housing, transportation, the environment, and public finance. Prerequisites: ECON 202 and ECON 203.

ECON 471. Industrial Organization: Study of Business Size and Competition (3) II. Forces that lead to bigness and resulting impact of bigness on competition; public policy, including regulation, designed to cope with business size. Prerequisite: ECON 202 or consent of instructor.

ECON 472. Comparative Economic Systems (3) II. Economic structures, conditions, problems, and policies in a selection of countries. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 473. History of Economic Thought (3) I. Development of economics and economic analysis from Adam Smith to J.M. Keynes. Prerequisites: ECON 202 and ECON 203.

ECON 475. Economics of Public Education (1-3). Education as investment in human capital; financing of education and relationship to federal monetary and fiscal policies and to state and local government finance. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 476. Seminar in Contemporary Economic Problems (3) On demand. Interested students should consult with chair of department.

ECON 491. Studies in Economics (1-3) On demand. Treatment of selected areas in depth. Offered to individual on lecture basis or in seminar depending on student needs and material. May be repeated to six hours.

ECON 495. Readings for Honors in Economics (3-6) I, II. For economics major with accumulative GPA of 3.0; normally culminates in treatise or comprehensive examination which must receive approval of department. Consult department chair. Prerequisite: consent of department.

Education Special (EDSE)

EDSE 311. Exceptional Child in Regular Classroom (2) I, II. Teaching exceptional handicapped children in alternative settings. C/F hrs.: 10.

EDSE 395. Workshop on Current Topics (3) I, II. On demand. Intensive educational experience related to skill development, content update, materials development. Typically, all-day concentrated time format. Requirements usually met within format. May be repeated on approval.

EDSE 421. Young Handicapped Child in Early Childhood Classroom (3) I, II. Knowledge and skills essential to functioning of general education teacher to mainstreamed early childhood classroom. C/F hrs.: 10.

EDSE 431. Education of Exceptional Children (3) I, II. Problems of exceptional school children, mentally retarded, learning/behavior disorders, speech/hearing handicapped, visually handicapped, gifted; etiology, diagnosis, personal-social problems, and prognosis. C/F hrs.: 11.

EDSE 432. Principles and Purposes of Special Education (2) I, II. Functions of public school and governmental agencies in providing educational services for exceptional children.

EDSE 433. Education of Mentally Retarded Children (2) I, II. Understanding and teaching educable and trainable mentally retarded children: etiology, diagnosis, theory, educational procedures. C/F hrs.: 20.

EDSE 437. Occupational Orientation and Job Preparation for Educable Mentally Retarded Children (3) I, II. Responsibilities of special class teacher for developing employable skills. Prerequisites: EDSE 431, EDSE 433, and EDSE 451. C/F hrs.: 25.

EDSE 438. Problems in Evaluating, Selecting, and Adapting Specialized Instructional Materials for Exceptional Pupils (3) I, II. Analysis, comparison and use of materials with pupils of specified exceptionality in terms of educational and administrative merit. Prerequisites: EDSE 431, EDSE 451, or consent of department.

EDSE 440. Curriculum Development and Methodology for Teaching Trainable Mentally Retarded Children (3) I, II. Materials and techniques emphasizing development and appropriate skills with practical applications. Prerequisites: EDSE 431, EDSE 451, EDSE 433; or consent of instructor. C/F hrs.: 25.

EDSE 441. Education of the Gifted and Talented Child (3) I, II. Nature and needs of gifted/talented, identification techniques, curriculum planning and development, teaching strategies and techniques, resources and materials available to teachers, program evaluation for gifted/talented. C/F hrs.: 10.

EDSE 442. Applied Classroom Management with Exceptional Children (3) I, II. Arrangement of environments for handicapped individuals which facilitate learning, recording, analyzing behavior. Reinforcement schedules and criteria for selection; application of therapy and communicating management programs to parents. Prerequisites: EDSE 431 and EDSE 433. C/F hrs.: 15.

EDSE 443. Practicum with Exceptional Children (1) I, II. Individual participation, and supervised practicum experiences. May be repeated to nine hours. Prerequisite: consent of instructor. Should be taken on S/U basis. C/F hrs.: 44.

EDSE 445. Sheltered Workshop-Function and Relationship to Special Education (2) I, II. Sheltered workshops in rehabilitation of mentally retarded. Techniques for job analysis, analyzing skills, specific jobs and job areas. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 25.

EDSE 447. Clinical Approaches to Instruction and Language Arts for the Mildly and Moderately Handicapped Student (3) I, II. Methods, procedures utilized in providing clinical approach to individualization of instruction and methods, materials in reading, spelling, oral and written communication for the mildly and moderately handicapped. Prerequisites: EDSE 443, 453, 456, 457 or consent of department. C/F hrs.: 14.

EDSE 448. Clinical Approaches to Instruction and Mathematics, Science, and Social Studies for the Mildly and Moderately Handicapped Student (3) I, II. Accommodation and adaptation of curriculum methods and materials for instruction of mathematics, science, and social studies, with application to a life skills curriculum for the mildly and moderately handicapped student. Prerequisites: EDSE 442, 453, 456, 457, or consent of department. C/F hrs.: 14.

EDSE 451. Educational Understanding of Children with Learning and/or Behavior Disorders (3) I, II. Multiple origins and educational significance of specific learning disabilities and/or behavior disorders. C/F hrs.: 15.

EDSE 453. Educational Evaluation of Children with Learning Disabilities and/or Behavior Disorders (3) I, II. Identification and analysis of specific learning disabilities as direct or contributing factors in educational and behavioral failures of otherwise educationally competent children. Prerequisites: EDSE 431, EDSE 451, or consent of department. C/F hrs.: 15.

EDSE 456. Educational Neuropsychology of the Exceptional Child (3) I, II. Theories and research related to the function and development of the brain as related to language, speech, reading, writing, spelling, mathematics. Major attention given to brain dysfunction, assessment, instructional approaches. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 10.

EDSE 457. Parent Education and Interaction (3) I, II. Approaches for educators in communicating with parents of handicapped children. Counseling parents and families; understanding legislated rights of the handicapped child and the role of educators/parents in instruction. Prerequisites: EDSE 431, 433. C/F hrs.: 8.

EDSE 461. Survey Course of the Hearing Impaired (3) I. History, philosophy, psychology, and education of the hearing impaired. Definitions of terms, structure of the ear, causes of deafness, types of hearing impairments, classification of hearing impairments, educational needs. Prerequisites: EDSE 431, EDSE 451, and PSYC 324. C/F hrs.: 15.

EDSE 462. Beginning Methods of Instruction of the Hearing Impaired (3) I. Observation through public schools; review of commercial textbooks (K-12). Developing lesson plans, unit plans, IEPs plus techniques of teaching supplemented by audio-visual workshops and demonstrations. Prerequisites: EDSE 431, 451, PSYC 324. C/F hrs.: 15.

EDSE 463. Advanced Methods of Instruction for the Hearing Impaired (3) II. This course stresses a mini-practicum experience in the public school program. A block period of four hours, three times per week. Stress on lesson plans, unit planning, development of materials and demonstration of teaching. Prerequisites: EDSE 431, 451, 461, 462, 464, CDIS 434, PSYC 324. C/F hrs.: 25.

EDSE 464. Basic Language Instruction for the Hearing Impaired (3) I. Students will observe and evaluate language; develop a language picture file; know how to analyze language through a hierarchy of language development. Compare normal language with hearing impaired language. Approaches to teaching both receptive and expressive language. Prerequisites: EDSE 431, 451, and PSYC 324. C/F hrs.: 15.

EDSE 465. Advanced Language Instruction for the Hearing Impaired (3) II. Teaching structured language - Fitzgerald Key; teaching language patterns; developing spontaneous language, language charts, stories through oral/written form. Students will analyze and compare language samples of hearing impaired children. Prerequisites: EDSE 431, 451, 461, 464, CDIS 434, PSYC 324. C/F hrs.: 15.

EDSE 470. Education of Multi-Handicapped Children (3) I, II. Educational dynamics, strategies, logistics, and responsibilities involved in socialization and education of multi-handicapped children. Prerequisites: EDSE 431, EDSE 433, EDSE 451. C/F hrs.: 15.

EDSE 490. Problems in Education (3) On demand. For advanced students wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisites: consent of the department.

EDSE 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

EDSE 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

Education Curriculum and Instruction (EDCI)

EDCI 100. Developmental Reading: Comprehension, Vocabulary, and Study Skills (2) I, II, summer. Designed to improve study habits and basic skills of vocabulary and comprehension; efficient notetaking, time management, test-taking and critical thinking. Clinic/lab required: 15 hrs. Lab fee: \$5.

EDCI 101. Speed Reading (2) II, summer. Designed to improve study-type reading speed; leisure reading speed; adjusting reading speeds to purposes, material difficulty, and background experience of reader. (Minimum score of 260 words per minute with 60th percentile comprehension on reading speed test is necessary to receive "C" in course.) Prerequisite: departmental testing or successful completion of EDCI 100. Clinic/lab required: 15 hrs. Lab fee: \$10.

EDCI 202. Exploring the Profession (2) I, II. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; possible participation in elementary and secondary settings. One class hour per week held as seminar on campus analyzing teacher roles with introduction to study of education and observation of classrooms in settings such as urban, suburban, and rural, through viewing videotapes made in area schools. C/F: 57.

EDCI 221. Early Childhood Education Competency Development I (2) I. Analysis of identified performance competencies for professionals who work with young children. Creating safe and healthy learning environment for infants and toddlers that helps build child's self-concept. One one-hour seminar weekly plus clinical/field: 30 hrs.

EDCI 321. Early Childhood Education Competency Development (2) II. Analysis of identified performance competencies for professionals who work with young children. Carrying out supplementary responsibilities related to children's program, applying child management techniques and beginning to initiate activities that advance preschool child's self-concept as well as physical and intellectual competence. One one-hour seminar weekly plus C/F: 30 hrs. Prerequisite: EDCI 221.

EDCI 350. Classroom Application of Methodology (2) I, II. General teaching methods applied to specific content areas, classroom management, management and organization techniques, working with parents, evaluation of children and self, and lesson and unit plans. Classroom teaching will be supervised and evaluated by the University instructor. MEP only. Prerequisites: MATH 241 and 242, EDFI 302, EDCI/EDFI 202.

EDCI 351. Social Studies in the Elementary School (3) I, II, summer. The teaching of social studies in K-6. Objectives, content, learning experiences, instructional resources, evaluation of teaching, learning in the classroom. Must obtain a minimum grade of C prior to student teaching. Clinical and field experiences in the teaching of social studies with children. Prerequisite: EDFI 302.

EDCI 352. Mathematics Methods for the Elementary School (3) I, II, summer. Teaching contemporary mathematics in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching and evaluation. Minimum grade of C required prior to student teaching. Prerequisites: EDFI 302 and MATH 241, 242, or their equivalent, 243 prior to EDCI 352. C/F hrs: 30. *Under exceptional circumstances, and only with the permission of the math education faculty, MATH 242 may be taken concurrently with EDCI 352.

EDCI 353. Science in Elementary Schools (3) I, II, summer. Teaching of science in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching, and evaluation. Must obtain a minimum grade of C prior to student teaching. Prerequisite: EDFI 302. C/F hrs: 30.

EDCI 355. The Teaching of Reading in the Elementary School (3) I, II, summer. The basic theory of developmental reading including teaching procedures, setting objectives, designing curriculum, utilizing instructional materials and evaluation. Prerequisite: EDFI 302. Must obtain a minimum grade of C prior to student teaching. C/F hrs: 30.

EDCI 356. Language Arts in the Elementary School (3) I, II, summer. Teaching the language arts; emphasis on language acquisition, developmental procedures in guiding growth in oral and written expression, listening, literature, and handwriting. Minimum grade of C required. Prerequisite: EDCI 302; ENG 291 highly recommended. C/F hrs: 30.

EDCI 357. Kindergarten-Primary Curriculum and Methods (3) I, II, summer. Objectives, curriculum, instructional and resource materials, methods. Laboratory experience in kindergarten-primary education. Should precede semester of student teaching. Prerequisite: EDFI 302 or EDFI 342. C/F hrs: 30.

EDCI 359. Individualization of Reading Instruction in Classroom (3) I, II, summer. Use of diagnostic measures and materials to aid teacher in developing individual student's learning and reading capabilities. Behavioral objectives, organization of classroom, sequencing skills, developing own materials and diagnostic teaching. Prerequisite: EDCI 355 or consent of instructor. C/F hrs: 25.

EDCI 360. Content Reading for Specialized Subject Areas (2) I, II, summer. Designed for preservice teachers seeking certification in specific subject areas at elementary and/or secondary levels. Participants become acquainted with reading needs of students in content area class. Prerequisites: early field experience and EDFI 302. C/F hrs: 30.

EDCI 370. General Teaching Methods in Secondary Schools (2) I, II, summer. General processes and issues that form the basis of instruction in all content areas; development of strategies and teacher behaviors associated with effective instruction; critical elements of planning, implementing, evaluating instruction, application of those elements in clinical/field setting. Prerequisites: EDCI 202 or EDFI 202 and EDFI 302. C/F hrs: 35.

EDCI 371. English in Secondary Schools (3) I, II. Philosophies of, experiences in, and methods for teaching of English in secondary schools. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 372. Speech in Secondary Schools (3) I. Principles, objectives, instructional and resource materials, and methods for teaching of speech in secondary schools. Field experience required. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 373. Foreign Language Education in the Schools (3) I. Principles of second language learning; theory and practice of K-12 curriculum, development of fundamental skills and abilities in teaching listening, speaking, reading, writing in foreign language; techniques of instruction planning; concepts of teaching culture. Prerequisites: EDCI 302 and junior standing. C/F hrs: 30.

EDCI 374. Mathematics In Secondary Schools (3) I, II. Principles, objectives, curriculum, materials, and methods of teaching mathematics in secondary schools. Observation and participation in local secondary schools. Two lectures and three laboratories. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 375. Science In Secondary Schools (3) I, II. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching science in secondary schools. Two lectures and three laboratories. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 376. Social Studies in Secondary Schools (3) I, II. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching social studies in secondary schools. Prerequisites: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 378. Journalism Methods for High School Teachers (3) II. Principles, objectives, curriculum, materials, methods of teaching mass media in secondary schools. Observations and participations in area schools. Prerequisites: EDFI 302 and junior or senior standing. C/F hrs: 40.

EDCI 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

EDCI G420. Developmental Reading in the Content Area (3) I, II, summer. Orients the teacher to the developmental reading process as it applies to the various subject matter areas, including diagnosis and prescription, vocabulary, word analysis, comprehension, and study skills. Prerequisite: EDFI 302, content methods course or consent of instructor.

EDCI 423. Investigations in the Teaching of Mathematics (3) I, II, summer. Research in mathematics education as it affects elementary schools. Curricular trends reflecting basic mathematical skills appropriate for elementary schools. Examination and analysis of materials for teaching mathematics. Must obtain a minimum grade of C prior to student teaching. Prerequisite: EDCI 352. C/F hrs: 30.

EDCI 424. Investigations in Teaching of Elementary Social Studies (3) On demand. Seminars in the teaching of social studies. In-depth study of values education, the interdisciplinary approach, problem solving techniques, and the role of social studies in controversial issues. Each can be taken alone but recommended that 3 of the 4 be completed. Prerequisite: EDCI 351.

EDCI 425. Investigations in the Teaching of Language Arts (3) On demand. Investigation of language arts in the elementary school, the nature and interrelationships of the various components, objectives for teaching, and development and evaluation of language learnings, materials, and methodology. Prerequisite: EDCI 356.

EDCI 426. Investigations In the Teaching of Elementary Science (3) On demand. Analysis of the science concepts and principles which are developed; nature of materials and methodology and designs of evaluation procedures. Prerequisite: EDCI 353 recommended.

EDCI Teaching Foreign Language Skills, K-12 (3) II. Advanced-level skills and abilities in teaching listening, speaking, reading and writing in foreign languages as applied to the K-12 curriculum, classroom management, testing and evaluation, individualized instruction, and culture. If taken for graduate credit, a research paper is required. Prerequisite: EDCI 373. C/F hrs: 30.

EDCI G471. Directing Speech Activities In High School (3) Summer. Administration of secondary cocurricular speech programs in forensic events, mass media, and theatre. Prerequisite: B.S. in speech education or EDCI 372, IPCO 204, THEA 241, 243 and 341.

EDCI 490. Problems in Education (1-3). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department. C/F hrs: 20.

EDCI 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

EDCI 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Educational Administration and Supervision (EDAS)

EDAS 395. Workshop on Current Topics in EDAS (1-3) I, II, summer. On demand. Study, readings, activities, projects, development of materials related to needs of EDAS undergraduate. Topics vary semester to semester. May be considered for professional growth. Graded S/U.

EDAS 409. Organization and Administration of Education in American Society (3) I, II, III, Local, state, and federal involvement in American education as related to society. Teacher interrelationships; classroom management, school finance, legal issues, job placement and professional relations, teacher evaluation, school-community relations, current educational issues and politics of education as related to societal control. Prerequisites: EDFI 302 and junior status. C/F hrs: 20.

EDAS 413. Administration of School Discipline and Student Behavior Problems (3) I, II, III. On demand. Student behavior problems and school discipline in educational setting; methods for analyzing problem behavior; comprehensive positive process approach to dealing with student behavior problems and school discipline.

EDAS 460 Workshop in Teacher's Role in Staff Problems (1) On demand. Acquaints teachers in preparation and beginning teachers with staff problems in public schools; teacher's role related to other teachers, supervisors and administrators.

EDAS 490. Problems in Education (1-3). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department.

EDAS 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

EDAS 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

EDAS 498 Workshop in Community Relations (3) On demand. Available teaching resources in the community and how they can be utilized efficiently in teaching; production of teaching units, resource files, other materials which effectively implement use of community resources.

Educational Foundations and Inquiry (EDFI)

EDFI 202. Exploring the Profession (2) I, II. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; possible participation in elementary and secondary setting. One class hour per week held as seminar on campus analyzing teacher roles with introduction to study of education and observation of classrooms in settings such as urban, suburban and rural, through viewing video-tapes made in area schools. Cross-listed in EDCI. C/F hrs: 57.

EDFI 302. Educational Psychology (3) I, II, summer. Theory and research on learning, development, personality, and motivation applied to educational processes in various learning environments. Some field or clinical work. Prerequisites: PSYC 201 and sophomore status. C/F hrs: 20.

EDFI 342. Psychology of Childhood (3) I, II, summer. Behavior and development of children through elementary school age. Prerequisite: PSYC 201. EDFI 302 recommended.

EDFI 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. Requirements usually met within time format. May be repeated on approval of adviser.

EDFI 402. Assessment and Evaluation in Education (3) I, II, summer. Assessment and evaluation applied to instructional procedures; construction of assessment tools; interpretations of assessment results. Prerequisites: EDFI 302 and one methods course. C/F hrs: 20.

EDFI 408. Education in a Pluralistic Society (2) I, II, summer. Ideas and assumptions in education. Development of dynamic and personal philosophy of education. Prerequisites: EDFI 302 and junior standing. C/F hrs: 10.

EDFI 411. Teachers' Role in Guidance (3) On demand. Human relations and classroom management practices which teachers may use to meet affective and cognitive learning needs of students; practical application counseling and guidance techniques and strategies which encourage positive classroom climate. Prerequisite: senior standing.

EDFI 412. Education of Disadvantaged (2) II. Effects of socioeconomic deprivation on educational performance; teaching techniques appropriate to needs and characteristics of disadvantaged student. Prerequisites: education methods and EDFI 302.

EDFI 415. Spaceship Earth Seminar (3) I. Integrating, synthesizing, environmental education seminar for upperclass and graduate students. Using inquiry approach, participants consider relationships of humankind with total environment.

EDFI 416. Philosophy of Environmental Education (3) II. Concepts and processes of environmental education including theories such as Toledo model, Strand approach, Environmental Studies Project, Boulder, and other representative model.

EDFI 417. Urban Education (2) On demand. Research, methods, and concepts from sociology and psychology discussed as basis for critically analyzing current educational practices, programs, and policies of urban schools. Resource people used. Library and field research required. Prerequisite: commitment to, or at least serious interest in, urban education.

EDFI 425. Assessment of Young and Atypical Children (3) I, II. Concepts and principles of measurement and instruments used in assessing young and atypical children; integration of measurement and instruction. Prerequisite: EDFI 302. C/F hrs: 20.

EDFI 460. Sex Role Stereotyping and Sex Discrimination in Education (2) On demand. Education as influential institution and process in society in terms of sexism in educational materials, curriculum, structure, federal, state, local policy responses to this concern; consideration and development of other policies for action regarding sex equity in education.

EDFI 481. Leadership Training in Behavior Analysis Program (1-5) On demand. Prepares individuals to function as group leaders in academic, year-long, interservice behavior analysis program. Prerequisite: permission of instructor and enrollment in behavior analysis program.

EDFI 482. Direct Study of the Child (1-5) On demand. Part of behavior analysis program. A child studied using predetermined framework.

EDFI 490. Problems in Education (1-3) On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to 6 hours; undergraduate credit only. Prerequisite: permission of instructor.

EDFI 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

EDFI 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Electronic Technology (ET)

(See technology)

English (ENG)

ENG 100. English as Foreign Language (4) I, II. For student whose native language is not English. Development of skills in listening, speaking, reading, and writing standard American English. Placement on basis of proficiency tests. Though it may be necessary for student to repeat course, only four hours of credit counted toward graduation. Graded S/U.

◆ **ENG 110. Developmental Writing** (5) I. Development of skills in sentence structure, edited American English usage, mechanics, paragraph construction, basic expository writing; emphasis on organizing and developing coherent essay of approximately 500 words for college-educated audience. Placement through departmental pretesting. Student must complete course and departmental proficiency examination successfully to receive S and to be eligible to enroll in ENG 112; students who receive No Record must enroll in ENG 111. No more than 6 hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No Record.

◆ **ENG 111. Introductory Writing** (3) I, II. Basic expository writing, emphasis on organizing and developing coherent essay of approximately 500 words for college-educated audience. Placement through departmental pretesting or unsuccessful completion of ENG 110. Students must complete course and departmental proficiency examination successfully to receive S. No more than 6 hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No Record.

◆ **ENG 112. Varieties of Writing** (3) I, II. Expository writing including research paper; emphasis on analytical writing based on critical reading. Placement through departmental pretesting or successful completion of ENG 110 or ENG 111. Student must complete course and departmental proficiency examination successfully to receive passing grade. Graded A, B, C/No Record.

◆ **ENG 150. Response to Literature** (3) I, II. Response to themes in poetry, drama, fiction, nonfiction and other literary types. Not accepted toward English major or minor.

◆ **ENG 200. Introduction to Literature: (sub-title)** (2-3) I, II. Basic literary concepts; works organized on single topics such as black literature, fantasy, science fiction, literature and film. Some topics for 2 credit hours; some for 3. Can be repeated once for credit if topics differ. Not accepted toward English major or minor.

ENG 201. Literature and Writing (4) I, II. Literary interpretation and criticism of poems, short stories, novels and plays. Study of the literary elements and forms of composition about literature. Extensive expository writing. Prerequisite: ENG 112.

◆ **ENG 205. Craft of Poetry** (2) I. Traditional and contemporary poetry; emphasis on way poetry is made. Required for majors and minors in B.F.A. creative writing program. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 206. Craft of Fiction** (2) II. The way fiction works, impulses creating it, how it turns out. Emphasis on style and form in traditional and contemporary fiction as way of understanding meaning. Required for majors and minors in B.F.A. creative writing program. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 207. Intermediate Writing** (3) I, II. Primarily exposition. Prerequisite: ENG 112.

◆ **ENG 208. Creative Writing** (3) I, II. Principles of poetic composition and fiction writing. Analysis of contemporary models and practice in original composition.

◆ **ENG 209. Creative Writing Workshop** (3) I, II. Supervised writing in poetry and fiction; group discussions; concentration on shorter forms. May be repeated once. Prerequisite: "B" or better in ENG 208.

◆ **ENG 251. Writing About Films** (3) II. Same amount of writing as in ENG 207; deals entirely with film theory, films, film scripts, novels on which films are based, and film reviews. Equivalent of ENG 207. Prerequisite: ENG 112.

ENG 261. World Literature (3) I. Masterpieces of world literature to 1400, including such authors as Homer, Confucius, Aeschylus, Sophocles, Plato, Aristophanes, Virgil, and Dante. Prerequisite: any ENG literature course or ENG 112.

◆ **ENG 262. World Literature** (3) I, II. Masterpieces of world literature since 1400, including such authors as Montaigne, Cervantes, Goethe, Hugo, Balzac, Dostoevski, and Kafka. Prerequisite: any ENG literature course or ENG 112.

ENG 264. English Literature Survey to 1700 (3) I. Major authors in the context of major literary traditions from Anglo Saxon times through the Restoration; introduces historical approach to the study of literature. Prerequisite: any ENG literature course or ENG 112.

ENG 265. English Literature Survey, 1700-1900 (3) II. Major authors in the context of major literary traditions from the eighteenth century through the Victorian Age; introduces historical approach to the study of literature. Prerequisite: any ENG literature course or ENG 112.

ENG 266. American Literature Survey to the Civil War (3) I. Roots of American literary traditions and growth of national independence of expression; religious, political, philosophical sources of American imagination based on texts of representative writers including Edwards, Paine, Irving, Cooper, Poe, Bryant, Emerson, Thoreau, Hawthorne, Whitman, Melville. Prerequisite: any ENG literature course or ENG 112.

- ◆ **ENG 267. American Literature Survey, Civil War to World War I** (3) I, II. Literary patterns of idealism, skepticism, and emergent materialism based on texts of representative writers such as Dickinson, Twain, James, Howells, Wharton, and Norris; literary movements such as local-colorism, realism, and naturalism. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 272. Literature of Minorities** (3) I. Minority literary expression: aims, methods and accomplishments. Prerequisite: any ENG literature course or ENG 112.
- ENG 290. Language Study** (3) Alternate years. Aspects of form and style in language: structure, usage, semantics; language change and cultural convention; social and regional dialects. Prerequisite: sophomore standing. Not applicable for state certification requirements.
- ENG 291. Language Study for Elementary Teachers** (3) On demand. Structure of English; emphasis on linguistic basis of reading, spelling, and other language arts concerns. Prerequisite: ENG 112.
- ENG 300. Themes in Literature** (3) On demand. Literary treatment of single theme, such as hero and heroine in literature, youth and age, love and death, innocence and experience, war and peace, wealth and poverty, etc. Prerequisite: any 100- or 200-level literature course or consent of instructor. May be repeated once if themes differ.
- ENG 301. Shakespeare** (3) I, II. Representative comedies, history plays, tragedies and tragicomedies, and sonnets. Designed for student with no previous Shakespeare courses. Prerequisite: any ENG literature course or ENG 112.
- ENG 306. Bible** (3) I. English Bible as literary classic; its development and influence on literary culture. Prerequisite: any 100- or 200-level literature course.
- ◆ **ENG 307. Great Books** (3) On demand. Books not usually studied in other courses; organized according to topic such as love, war, or death, or according to genre such as fantasy, science fiction, or romance, or according to works of one or two writers such as Tolkien. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 308. Creative Writing** (3) I, II. Imaginative writing, fiction and poetry. Class discussion and individual conferences. Prerequisite: "B" or better in ENG 209 or approval of instructor. May be repeated once.
- ◆ **ENG 320. Modern Poetry** (3) I. English and American poetry and European poetry in translation from 1900 to 1945; writers and works significantly influencing development of poetic forms. Prerequisite: any ENG literature course or ENG 112.
- ENG 322. 19th Century American Fiction** (3) I. Short stories and novels. Includes Poe, Hawthorne, Melville, Twain, James and Crane; minor writers including regional humorists. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 323. Modern Fiction** (3) I, II. Emphasis on the novel; American and English works as well as works in translation from 1900 to 1945; works which represent development of forms of fiction. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 325. Modern Drama** (3) I. Great plays by Ibsen, Chekhov, Shaw, O'Neill, and others; dramatist's insights into human condition. Prerequisite: any ENG literature course or ENG 112.
- ENG 330. Contemporary Poetry** (3) II. Cross section of English and American poetry and European poetry in translation, mostly written since 1945; writers and works representing major trends in development of poetry. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 333. Contemporary Fiction** (3) II. Cross section of American and English fiction and European fiction in translation, mostly written since 1945; works representing major trends in development of fiction. Prerequisite: any ENG literature course or ENG 112.
- ENG 335. Contemporary Drama** (3) II. Plays since 1945 by American, British and European dramatists (in translation); new techniques, thematic trends, and aspect of human condition revealed through plays. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 342. Children's Literature** (3) I, II. Reading and evaluation of books for children from nursery school through junior high school; novels, folklore, informational literature, poetry, and bibliographical sources. Not open to student with credit for L&EM 342. Prerequisite: any ENG literature course or ENG 112.
- ENG 343. Literature for Adolescents** (3) I, II. Reading and evaluation of books for junior and senior high school students; emphasis on fiction; also biography and other nonfiction, folklore, myth, poetry. Prerequisite: any ENG literature course or ENG 112.
- ENG 380. Introductory English Linguistics** (4) I, II. Structure of English through recent linguistic theories and related topics such as dialects, usage, dictionaries. Prerequisite: sophomore standing.
- ENG 381. Grammar and Writing** (3) I, II. Application of grammatical models (traditional, structural, and transformational) to the teaching of writing. Prerequisite: ENG 380.
- ENG 385. Studies In Literature-Film** (3) On demand. Problems in film's relationship to literature; definitions and theory; specific films and literary works. May focus on author, genre, or historical period. May be repeated once if topics differ. Prerequisite: any ENG literature course or ENG 112.
- ENG 400. Chaucer** (3) I. The Canterbury Tales, Troilus and Criseyde, and such dream-vision poems as The Book of the Duchess and lyrics, in Middle English. Prerequisite: any ENG literature course or ENG 112.
- ENG 401. Shakespeare II** (3) Alternate years. Shakespeare's dramatic technique in tragedy, comedy, or history play. Prerequisite: ENG 301.
- ENG 402. English Medieval Literature** (3) Alternate years. Poetry, prose, and drama including such works as Beowulf (selection), Pearl, The Wakefield Plays, and The Prick of Conscience read in Old and Middle English or in translation. Prerequisite: any ENG literature course or ENG 112.
- ENG 403. 16th Century English Poetry and Prose** (3) Alternate years. Renaissance literature, including great sonnets, early novels, Spenser's Arthurian epic, Skelton's satires and Marlowe's erotic love poetry. Prerequisite: any ENG literature course or ENG 112.
- ENG 404. 17th Century Writers** (3) Alternate years. Poetry and prose from 1600 to 1660; Donne, Jonson, Herrick, Herbert, Vaughan and Marvell, Bacon, Browne, Hobbes, and Bunyan. Prerequisite: any ENG literature course or ENG 112.
- ENG 406. English Renaissance Drama** (3) Alternate years. English drama (except Shakespeare) before 1642; including Marlowe, Jonson, and Webster; reading in antecedent forms and traditions. Prerequisite: any ENG literature course or ENG 112.
- ENG 407. Writer's Workshop** (3) I, II. Analysis of contemporary creative writing models, and original composition, emphasis on fiction and poetry. Creative writing majors repeating course required to do special project. Prerequisite: "B" or better in ENG 308 or approval of instructor. May be repeated once.
- ENG 408. Milton** (3) Alternate years. Paradise Lost, Paradise Regained, and Samson Agonistes and selected minor poems and prose. Prerequisite: any ENG literature course or ENG 112.
- ENG 410. English Restoration and 18th Century Drama** (3) Alternate years. Restoration features heroic drama, pathetic tragedy, and libertine comedy; 18th century sentimentality and laughing comedy. Stage and theatre design, historical and social background. Prerequisite: any ENG literature course or ENG 112.
- ENG 411. 18th Century Writers** (3) Alternate years. Prose and poetry from Restoration, Augustan, and Johnsonian periods; neoclassical and preromantic writers; Dryden, Swift, Pope, Johnson, Boswell. Prerequisite: any ENG literature course or ENG 112.
- ENG 415. English Novel: Defoe to Austen** (3) Alternate years. Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and contemporaries. Prerequisite: any ENG literature course or ENG 112.
- ENG 416. English Novel of 19th Century** (3) Alternate years. Bronte, Dickens, Hardy and other novelists of Victorian England. Beginnings of modern society, its problems and possibilities, and development of novel as a unique modern form. Prerequisite: any ENG literature course or ENG 112.
- ENG 417. Romantic Writers** (3) Alternate years. English poetry and prose from 1789-1832; Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. Prerequisite: any ENG literature course or ENG 112.
- ENG 418. Victorian Writers** (3) Alternate years. Prose and poetry of Carlyle, Mill, Tennyson, Browning, Arnold, the Pre-Raphaelite poets and successors. Prerequisite: any ENG literature course or ENG 112.
- ENG 419. Modern British Writers** (3) Alternate years. British writers from 1900 to 1945: Joyce, Lawrence, Conrad, Forster, Woolf, Yeats, O'Casey, Shaw, Auden. Prerequisite: any ENG literature course or ENG 112.
- ENG 420. Modern American Writers** (3) II. Major American writers from 1900 to 1945: Eliot, Pound, Stein, Frost, Stevens, O'Neill, Hemingway, Fitzgerald, Faulkner. Prerequisite: any ENG literature course or ENG 112.
- ENG 423. Women's Studies in Literature** (3) I. Topics such as women poets or women novelists, depiction of women in works by men, feminist criticism; primarily British and American writers. May be repeated once if topics differ. Prerequisite: any ENG literature course or ENG 112.
- ENG 430. American Transcendentalism** (3) Alternate years. Major writers of Transcendentalist movement and social and philosophical background of their time; Emerson and Thoreau. Prerequisite: any ENG literature course or ENG 112.

ENG 435. Hawthorne and Melville (3) Alternate years. Major works of Hawthorne and Melville and background of the age. Prerequisite: any ENG literature course or ENG 112.

ENG 442. Studies in Children's Literature (3) Alternate years. Problems in children's literature; history, criticism, trends, individual authors, types. Not open to student with credit for L&EM 442. Prerequisite: ENG 342 or permission of instructor.

ENG 456. Critical Writing (3) Alternate years. Writing from various critical perspectives such as biographical, textual, psychological, mythical, analytical. Prerequisite: any ENG literature course or ENG 112.

ENG 479. Tutorial in Language and Literature (1-4) I, II. For advanced student or small group of students to work independently in specialized subject not covered by existing courses. Prerequisite: junior standing; six hours of ENG beyond 112; written description of the proposal prepared by student and signed by proposed tutor, to be submitted to undergraduate curriculum committee in English prior to end of preceding semester.

ENG 480. Studies in English or American Literature (3) Intensive study of author, literary school, genre, or theme. May be repeated once if topics are different. Prerequisite: any ENG literature course or ENG 112.

ENG 481. Advanced English Linguistics (3) Alternate years. Intensive study of topic in English linguistics. Topics announced in advance and vary from section to section and quarter to quarter. May be repeated if topics clearly different. Prerequisite: ENG 380.

ENG 482. History of English Language (3) Alternate years. Changes in sounds, grammar, usage, and meaning from Old English to present. Prerequisite or corequisite: ENG 380.

ENG 483. Advanced Writing (3) I. Expressive writing; composing process and techniques for stimulating and evaluating writing in secondary school. For prospective teachers and anyone interested in craft of writing or creative process. Prerequisite: EDCI 371 or consent of instructor.

ENG 485. Writing Film Criticism (3) On demand. Principles and assumptions underlying approaches to film criticism as revealed in commentaries and critiques; application of these principles to writing film criticism. Prerequisite: ENG 201 or ENG 207 or ENG 208 or ENG 251, or permission of instructor.

ENG 488. Technical Writing (3) I, II. Professional course designed for practical application in business, industry, and sciences. May be repeated once for credit. Prerequisite: senior standing or approval of instructor.

ENG 489. Internship in Technical Writing (1-9) I, II, summer. Full-time technical writing internship for 15 weeks in industrial publications office under supervision of professional publications director. Available only for students with exceptional skill in technical writing, with approval and recommendation of technical writing staff. Prerequisites: ENG 488 and approval of technical writing staff. Graded S/U.

ENG 495. Honors Reading (3) For superior major or minor who wants to pursue common studies determined by interests of group looking toward granting of honors in English. Prerequisite: consent of instructor.

Environmental Health (ENVH)

ENVH 401. Waste Management and Disposal (2) I. Problems of disposing of wastes generated by various segments of community; sources of material, levels of authority and responsibility, and alternatives for disposal.

ENVH 402. Air and Noise Pollution in Community (3) II. Sources and effects of air and noise pollutants; various methods of monitoring, evaluation, and control; elements of development and implementation of control systems.

ENVH 403. Environmental Considerations in Occupational Health (3) Summer. Prevention and control of occupational health and safety hazards through improvement of working environment; applicable laws and standards; key concepts in recognition and evaluation of potential hazards.

ENVH 404. Organization of Public and Environmental Health Services (3) II. Concepts and philosophy of public health as reflected by national, state, regional, and local programs. Prerequisite: junior status; instructor's permission if not an environmental major or health and community services student.

ENVH 470. Special Problems in Environmental Health (1-2) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: program director's permission. May be repeated.

◆ **ENVH 491. Practicum** (1-12) I, II, summer. Experience working under supervision in selected environmental, public health, or health planning agencies or industries with environmental health units; emphasis on practice rather than observation. May be repeated to 12 hours; minimum of six hours required for students in environmental health program. Prerequisites: instructor's permission, at least junior status. Graded S/U.

Environmental Health Technology (ENVT)

† **ENVT 121. Environmental Regulation** (2) II. Basic foundations of environmental law; historic precedents, current legislation, environmental impact statements and how to testify in a court of law.

† **ENVT 160. Environmental Sanitation** (2) I. Communicable disease control, individual water and sewage treatment, swimming areas, and solid and liquid waste disposal. One hour of lecture and three hours of laboratory and field study.

† **ENVT 211. Biological and Chemical Examination of Water** (6) II. Quantitative and qualitative analysis of bacteria, algae, common aquatic organisms and chemical composition of water, wastewater, and bottom materials. Four hours of lecture and six hours of laboratory. Prerequisite: one semester of laboratory CHEM or consent of instructor.

† **ENVT 222. Water and Wastewater Treatment** (4) I. Introduction to water supply and treatment and wastewater treatment and disposal. Three hours of lecture and four hours of laboratory and field study. Prerequisites: one semester of laboratory CHEM, PHYS 201 and MATH 127, or consent of instructor.

† **ENVT 223. Wastewater Package Treatment** (1) II. Operator personnel and inspectors of package type extended aeration plants the basic concepts of routine operations, maintenance, process control, and safety. Twenty-eight hours of lecture.

† **ENVT 225. Environmental Health and Protection** (3) II. Basic concepts in ergonomics, noise, vibration, illumination, effects of temperature and radiation uses and protection. Two hours of lecture and four hours of laboratory and field study. Prerequisites: one semester of laboratory CHEM, PHYS 201, and MATH 127, or consent of instructor.

† **ENVT 226. Institutional Health and Sanitation** (2) II. Elementary inspection techniques of marinas, housing, schools, temporary residences, trailer parks, and migrant labor facilities, and food and milk protection. One hour of lecture and three hours of field study. Prerequisites: ENVT 160 and 280, or consent of instructor.

† **ENVT 260. Air Pollution Surveillance and Control** (3) I. Introduction to the fundamentals of industrial toxicology, air pollution, and industrial hygiene surveillance, monitoring, analysis, and control. Two hours of lecture and four hours of laboratory and field study. Prerequisites: One semester of laboratory CHEM, PHYS 201 and MATH 127, or consent of instructor.

† **ENVT 261. Industrial Ventilation** (2) II. Principles of ventilation; includes design and evaluation of general, dilution, and local exhaust ventilation systems. One hour of lecture and three hours of laboratory. Prerequisite: ENVT 260 or consent of instructor.

† **ENVT 270. Occupational Safety and Hygiene** (3) I. Accident prevention and investigation, fire, electrical and laboratory safety, personal protective equipment, biohazard control, and occupational health inspection techniques. Two hours of lecture, four hours of field study.

† **ENVT 272. Hazard Recognition** (2) II. Hazard recognition in the work environment with special emphasis on construction and factory operations. One hour of lecture and three hours of field study.

† **ENVT 280. Food Manager Certification** (1) I. Microbiology inspection techniques, safety analysis, prevention of food-borne diseases, Ohio food service laws and planning and equipment review. Twenty-eight hours of lecture.

† **ENVT 290. Experimental Studies in the Environment** (1) I, II, summer. Environmental study projects, workshops, seminars and computer simulation classes dealing with air, water, or land resource utilization and planning.

† **ENVT 291. Student Field Experience** (3) I, II, summer. Eleven weeks of field work in environmental health under the supervision of a regulatory agency or a private industrial concern and the director of environmental health at Firelands College. Prerequisite: permission of supervisor.

Ethnic Studies (ETHN)

ETHN 101. Introduction to Ethnic Studies (3) I, II, summer. Key theoretical concepts in ethnicity; surveys studies and problems of ethnic groups.

ETHN 110. Introduction to Latinos in the United States (3) I, II. Latino experience in the United States; cultures, life experiences and the limited political, educational, socio-economical opportunities of this minority.

ETHN 120. Introduction to Black Studies (3) I, II, summer. Introduction to the black experience with special emphasis upon but not limited to the cultural experience of the United States.

ETHN 205. European Ethnic Americans (2) I, summer. Immigration experience of several European groups in the U.S. and their cultural adaptation thereafter. Specific groups to be studied vary according to faculty and the semester taught.

ETHN 210. Chicanos in American Society (3) II, summer. Social culture of Chicanos in the United States; introduces major concepts and themes of Chicano biculturalism and their folk culture.

ETHN 215. History of the Mexican Americans (3) I. History of Mexican Americans from the Texas Revolution, Mexican American War to the present.

ETHN 220. African Literature (3) I. Creative and critical writing in the English language by writers of African descent. Also writers from the Caribbean.

ETHN 300. Topics in Ethnic Studies (3) I, II, summer. On demand. Experimental courses considered part of regular offering.

ETHN 304. Ethnicity in America (3) I, II, summer. Anthropological survey of some of the ethnic and regional groups in America. Discussion of both their traditional and contemporary cultures. Prerequisite: SOC 101 or SOC 231, or lower level ethnic studies course.

ETHN 308. Origins of Chicano Culture (2) I, II. Origins of Mexican American culture and its contributions to art and folklore.

ETHN 312. West African Literature and Nationalism (3) II. Contributions made by West African writers to the rise of national consciousness in West Africa.

ETHN 395. Workshop on Current Topics (1-3) I, II, summer. Comprehensive study of America's ethnicity with special emphasis upon the three ethnic groups in northwest Ohio: Afro-Americans, Mexican Americans, and Polish Americans. Particular emphasis will be placed upon development of relevant curriculum pertaining to the ethnic groups studied.

ETHN 410. Contemporary Mexican American Social Thought (3) II. Development of Mexican philosophical thought as exemplified by Santa Anna, Juarez, Diaz, Zapata, and Cardenas as related to Chicano ideologies, their significant parallels within their contemporary periods and institutions.

ETHN 415. Novels of Chinua Achebe (2) II. Study of Chinua Achebe, one of the foremost writers from English-speaking West Africa.

ETHN 470. Readings in Ethnic Studies (1-2) I, II, summer. Individual extensive readings in consultation with instructor in fields of special interest. May be repeated. Prerequisite: consent of instructor. May or may not partially fulfill group requirements.

ETHN 480. Seminar in Ethnic Studies (3) I, II, summer. Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor. May or may not partially fulfill group requirements.

ETHN 489. Field Study in Ethnic Studies (2-8) I, II, summer. Placement of students in a variety of agencies or businesses, which are relevant to the study of ethnicity or research/study outside of Bowling Green. Prerequisites: junior standing; 6 hours of upper division ethnic studies courses relevant to the study; and permission of instructor. Graded S/U.

FINANCE (FIN)

FIN 200. Personal Finance (3) I, II. Primarily for non-business majors. Personal financial management; borrowing sources and costs; auto, property and life insurance; homeownership financing; personal investment strategy, and long-range personal financial planning. Not open to juniors and seniors majoring in business administration.

◆ **FIN 300. Business Finance** (3) I, II, summer. Acquisition and allocation of funds in business enterprise. Fundamentals of financial analysis, working capital management, capital budgeting, financing sources: debt, equity and term financing, valuation. International financial management. Prerequisites: ECON 202 and ACCT 222.

◆ **FIN 330. Principles of Investment** (3) I, II. Investment process related to commitment of funds in securities. Risks and rewards of different investment media. Investment analysis and timing, types of securities, basic portfolio construction and evaluation. Prerequisite: FIN 300 or permission of instructor.

FIN 342. Real Estate Administration (3) II, summer. Investment decision making in land resource use, appraisal and investment analysis. Real estate location and markets. Real estate property rights, financing, taxation and valuation. Accepted by Ohio Real Estate Commission as one of two required courses for the licensing exam. Prerequisite: ECON 202 or permission of instructor.

FIN 360. Financial Institutions (3) I, II. Institutions which participate in money and capital markets; markets for corporate securities, real estate finance, federal government and agency obligations, and state and local government obligations. Prerequisites: FIN 300 and ECON 311.

FIN 425. Financial Management in Health Care Services (3) I. Application of financial management principles; funds flow analysis; forecasting and budgeting; benefit/cost considerations and financial analysis; government subsidy implications for capital budgeting; sources of capital, planning capital structure. Prerequisite: FIN 300.

FIN 433. Security Analysis (3) I. Selecting securities for investment objectives. Appraisal of investment risks for specific securities; valuation and suitability for purchase, retention, or sale; appropriateness for stated portfolio objectives. Prerequisite: FIN 330.

FIN 436. Portfolio Management (3) II. Additional topics in security analysis. Theory and practice of portfolio construction and review; practical applications in portfolio management. Prerequisite: FIN 433.

FIN 450. Problems in Financial Administration (3) I, II. Case method approach to problems in procurement, administration, allocation and control of funds. Prerequisite: FIN 300 (ACCT 322, ACCT 332, or ACCT 337 recommended).

FIN 461. Bank Management (3) I, summer. Management principles in banking. Management of funds sources, and their allocation among reserves, loans, and investments and its impact on bank liquidity and profitability. Depositors' services and credit and lending analysis practices. International banking. Prerequisites: FIN 300 and ECON 311.

FIN 491. Studies in Finance (1-3). On demand. In-depth study of selected areas. Offered to individual students on lecture, seminar, or independent study basis depending on student needs and nature of material. May be repeated to six hours. Graded S/U.

French (FREN)

◆ **FREN 101. Elementary French I** (4) I, II. Beginning oral-aural study; attention to grammar. Four class periods and scheduled oral practice each week.

◆ **FREN 102. Elementary French II** (4) I, II, III. FREN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: FREN 101.

FREN 111. French Cultural Series I (4) I, II. French culture; development of language awareness for reading comprehension. Discussion in English. No laboratory.

FREN 112. French Cultural Series II (4) I, II. French culture; development of language awareness for reading comprehension. Discussion in English. Prerequisite: FREN 101 or FREN 111. No laboratory.

◆ **FREN 201. Intermediate French I** (3) I, II. Three class periods and scheduled oral practice each week. Prerequisite: FREN 102 or two years of French in high school.

◆ **FREN 202. Intermediate French II** (3) I, II. FREN 201 continued. Three class periods and scheduled oral practice each week. Prerequisite: FREN 201 or three years of French in high school.

FREN 211. French Cultural Series III (3). I, II. Further development of reading skill. Extensive reading in masterpieces of French literature and related cultural texts. Some reading in English translation. Prerequisite: FREN 102 or FREN 112, or two years of French in high school.

FREN 212. French Cultural Series IV (3) I, II. Continuation of FREN 211. Prerequisite: FREN 201 or FREN 211 or three years of French in high school.

FREN 260. French Women Writers in Translation (3). Study in English of French women writers throughout the ages. Not applicable toward French major or minor.

FREN 261. Modern French Writers in Translation (3). Readings in English from Camus, Sartre, Beckett, Ionesco. Not applicable toward French major or minor.

FREN 350. French Connection (3) I. Bridge between FREN 202 and advanced courses. Intensive grammar review and translation. Required of all majors but may be waived by Department of Romance Languages. Prerequisite: FREN 202.

FREN 351. French Composition and Conversation I (3) I. Improvement of oral and written skills; emphasis on composition. Prerequisite: FREN 202.

FREN 352. French Composition and Conversation II (3). FREN 351 continued; emphasis on conversation. Prerequisite: FREN 202.

FREN 353. French Diction (3) 1982-83 and alternate years. French pronunciation; syllabification, stress, linking, intonation. Prerequisite: FREN 202.

FREN 355. French Linguistics (4) I. Sound system and grammatical structures of modern French; practical application. Prerequisite: FREN 202.

FREN 361. Introduction to French Literature I (3) 1982-83 and alternate years. Chronological evaluation of outstanding works from Middle Ages through 17th century; various movements and genres. Prerequisite: FREN 202.

FREN 362. Introduction to French Literature II (3) 1981-82 and alternate years. FREN 361 continued; masterpieces from 18th century to present; various movements and genres. Prerequisite: FREN 202.

FREN 371. French Civilization I (4) 1982-83 and alternate years. Political, social, intellectual, artistic life of French people from prehistoric times to Industrial Revolution; background for literary studies and preparation for teaching of French. Prerequisite: FREN 202.

FREN 372. French Civilization II (3) 1981-82 and alternate years. FREN 371 continued; political, social, intellectual, artistic life of modern France. Prerequisite: FREN 202.

FREN 389. Contemporary Touraine (4) III. Individual research projects culminating in term paper dealing with some aspect of region of Touraine. Prerequisite: FREN 202. Offered only abroad.

FREN 451. Advanced Composition (3). Increased facility at written composition through practice in grammatical patterns. Prerequisite: FREN 351.

FREN 452. Advanced Conversation (3). Development of increased speaking facility. Prerequisite: FREN 352.

FREN 453. Advanced French Diction (3). Continued study of pronunciation, stress, and intonation. Prerequisite: FREN 353.

FREN 463. Career French (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation. Prerequisite: FREN 351 or FREN 352.

FREN 468. Four Great French Dramatists (4). Alternate years. Ten important plays by Corneille, Rotrou, Racine, Moliere, illustrating typical traits of baroque and classical literature. Prerequisite: FREN 361.

FREN 469. Baroque and Classical Authors of 17th Century (4). Alternate years. Ten great authors of 17th century, illustrating typical traits of baroque and classical styles. Prerequisite: FREN 361.

Geography (GEOG)

◆ **GEOG 121. World Geography: Eurasia and Africa (2)** I, II. Geographical analysis of selected topics in Asia, Africa, and Europe. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 122. World Geography: Americas and Pacific (2)** I, II. Geographical analysis of selected topics in Americas and Pacific world. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 125. Weather and Climate (3)** I, II. Atmospheric elements and controls; earth-sun relationships, weather components, weather prediction, and climatic types and distribution. Two one-hour lectures, one-hour demonstration-discussion.

◆ **GEOG 126. Vegetation and Soils (3)** I. Physical geography; distribution and classification of vegetation and soil representation of earth on maps. Two one-hour lectures, one-hour discussion-demonstration.

◆ **GEOG 127. Land Form Development and Distribution (2)** II. Physical geography; processes of land form development, world-wide distribution of land forms, and U.S. physiographic features and regions.

◆ **GEOG 213. Meteorology (3)** I, II. Physical processes of atmosphere and relationship to daily weather pattern. Two one-hour lectures, one two-hour laboratory.

◆ **GEOG 225. Resource Distribution and Economic Activity (3)** I, II. Ways in which man has developed natural and human resources to meet economic needs; resulting patterns in economic landscape.

◆ **GEOG 230. Cultural Geography (3)** I, II. Geographic influences upon population distribution, religion, dietary patterns, economics, others.

GEOG 300. Topics in Geography (3) On demand. Experimental courses considered part of regular offering.

GEOG 321. Introduction to Map Communication (3) I. Practical map planning and construction; basic cartographic theory and use of drafting materials and equipment.

GEOG 322. Thematic Cartography (2) II. Quantitative and qualitative data; statistical or thematic maps.

GEOG 323. Research Methods (3) On demand. Geographic research techniques, quantitative methods of describing and analyzing spatial distributions.

GEOG 325. Population Geography (3) II. Spatial analysis of size, distribution, density, migration, age-sex composition, and dynamic factors of change in major world population regions and sub-regions.

GEOG 326. Community Planning for the Elderly (3) II. Housing, shopping, and transportation problems of urban and rural elderly; development of programs to meet needs of elderly.

GEOG 327. Delivery of Social Services: Geographic Perspectives (3) Alternate years. Delivery of social services to subnational geographic areas; design and monitoring of delivery systems by examining specific social programs and problems, as those related to poverty, crime, health and elderly.

GEOG 331. Principles of Conservation Ecology (3) I, II. Principles necessary in considering environmental problems and application to various aspects of conservation, interdisciplinary approach combining social, biological, and physical sciences.

GEOG 333. Geography of Recreation (3) I. Spatial aspects of outdoor recreation; assessment of present and future recreational resources; space for urban and rural areas, accessibility of these resources, governmental policies, and tourism.

GEOG 334. Geography of Diseases (3) On demand. Past and present spatial distribution of diseases; cultural and environmental impacts in distribution, transmission, and causes of diseases in different regions of world.

GEOG 335. Geography of Human Migrations (3) I. Causes and consequences of selected historical and contemporary human migrations, both international and internal; spatial analysis of characteristics of migration streams and places of origin and destination.

GEOG 337. American Indian (3) II. Past and present spatial aspects of native American population in United States and Canada, distributions, migrations, economies, land tenure, cultures, art, rural urban settlement, impact upon cultural and physical landscapes.

GEOG 341. Soviet Union (3) II. Description and interpretation of geographic factors related to present development.

GEOG 342. Eastern Europe (2) On demand. Nations of eastern Europe; description and interpretation of geographic factors related to present development.

GEOG 343. Western Europe (3) I, II. Geographic aspects in understanding present-day status of countries of Western Europe.

GEOG 344. Eastern Asia (3) I. Problems and factors influencing development of countries of eastern Asia; emphasis on China and Japan.

GEOG 345. Southern and Southeast Asia (2) On demand. Countries extending from Philippine Islands to Pakistan; different cultures; utilization of resources, future opportunities, and problems of development.

GEOG 346. Middle East (3) I. Contemporary problems of Middle East; petroleum development and impact on society, food needs, population problems, and spatial characteristics of religious and linguistic groups.

◆ **GEOG 347. Africa (2)** On demand. Geographic factors influencing development of African countries.

GEOG 349. Latin America (3) I. Problems related to contemporary development of societies of Latin America.

GEOG 350. Anglo-America (3) II. Problems and factors influencing development of U.S. and Canada.

GEOG 351. Ohio (3) I, II. Historical, physical, economic and social problems related to development of Ohio.

GEOG 400. Special Topics in Geography (3) On demand. Experimental courses considered part of regular offering.

GEOG 402. Regional Economic Geography (3) I or II. Problems of subnational areal units in county and regional planning; poverty pockets, delivery of services; emphasis on individual projects.

GEOG 404. Climatology (3) I or II. Fundamentals and applications; drought, water resources, human comfort, health, architecture, short and long-term climatic changes.

GEOG 405. Meteorology and Man (3) On demand. Sociological, political, planning and legal aspects of atmosphere as natural resource. Prerequisite: GEOG 125 or GEOG 213.

GEOG 410. Field Techniques (3) On demand. Instruction and practice in techniques of field data collection and interpretation. Physical and cultural elements of landscape investigated; emphasis on rural land use systems:

GEOG 411. Theoretical Cartography (3) Alternate years. Analysis of cartographic research. Four hours per week: two hours lecture or discussion and two hours of laboratory. May be repeated once upon consent of instructor. Prerequisite: GEOG 322 or consent of instructor.

GEOG 412. Use and Interpretation of Aerial Photographs (3) I. Sources, types, characteristics, uses, and limitations of aerial photographs. Training in use of standard equipment for stereoscopic viewing and height measurement.

GEOG 413. Introduction to Remote Sensing (3) II. Principles and procedures used to obtain information about natural and cultural features through imagery derived from photographic, multispectral, and side-looking airborne radar sensor systems. Prerequisite: GEOG 412 or consent of instructor.

GEOG 422. Computer Mapping (3) II. Map construction and display of geographical data using the computer. Prerequisite: CS 101 or consent of instructor.

GEOG 425. Food Resources and Rural Development (3) On demand. Changes and trends in availability, production, and consumption of food resources; related rural problems such as pollution, zoning, recreating, and future expectations of rural areas by urban populations.

GEOG 426. The American City (3) I. Internal organization of cities. Ecological and land use problems, ghetto development, urban-economic base, urban sprawl, and intra-urban delivery of services.

GEOG 427. Genetic and Regional Analysis of Physical Landscapes (3) On demand. Selected aspects of physical geography (excluding meteorology and climatology); in depth analysis of man's natural environment. Prerequisites: GEOG 126 and GEOG 127 or consent of instructor.

GEOG 433. Soil Classification and Mapping (3) II. Classification of soils; use of soil survey equipment; preparation of soil type, slope and erosion maps of assigned areas. Prerequisite: GEOG 126 or permission of instructor.

GEOG 436. Topics in Community and Area Development (3) Alternate years. Field analysis of various problems and topics of urban and rural areas. Prerequisite: GEOG 402 or GEOG 426 or consent of instructor.

GEOG 442. Conservation: Resources and Regional Development (3) On demand. Problems of area development in relationship to cultural, economic, and physical resources; obstacles to present development, needed changes, and potentials for future growth.

GEOG 451. Historical Geography of Anglo-America (3) On demand. Reconstruction of natural environment of U.S. and Canada; how different groups perceived environment and used available resources; emphasis on how man has modified earth's surface.

GEOG 452. Geopolitics (3) II. Geographic factors influencing development of states and interrelationship of these countries.

GEOG 460. Hydrology (3) I or II. Water's role in geography, environmental systems. Hydrologic phenomena analyzed on basis of scientific interdependence, phases of hydrologic cycle, practices and applications, and socio-economic aspects. Prerequisite: GEOG 125 or GEOG 126 or GEOG 127.

GEOG 471. Oceanography (3) On demand. Geographic aspects of oceanography.

GEOG 489. Internship (3) I, II. Provides practical experience in applied geography, such as land use planning; urban and rural planning; recreational, regional, and environmental planning; and location of industrial, commercial, and health service facilities. May be repeated. Only six hours may be applied to GEOG major or minor; additional hours are for general electives. Graded S/U.

GEOG 490. Special Problems in Geography (1-3) On demand. Readings and research on varied topics to suit needs of student.

Geology (GEOL)

◆ **GEOL 100. Introduction to Geology** (3) I, II, summer. The earth; physical and historical geology; including economic, social, and environmental aspects. Not open to geology majors and minors. Credit not given for both GEOL 100 and GEOL 101.

GEOL 101. Earth Science (3) I, II, summer. Survey of earth's geology, oceanography, meteorology, and place in the universe. Credit not given for both GEOL 101 and GEOL 100 or GEOL 104.

◆ **GEOL 104. Physical Geology** (4) I, II, summer. Introduction to the science of geology, common rocks and minerals, physical processes operating on and in the earth, land forms, and geologic structures. Three lectures and one two-hour laboratory. Credit not given for both GEOL 104 and GEOL 100 or GEOL 101.

◆ **GEOL 105. Historical Geology** (4) I, II, summer. Introduction to the history of the earth and its inhabitants. Three lectures and one two-hour laboratory.

◆ **GEOL 205. Geologic History of Man** (3) I. Evolution, distribution, way of life, and geologic history of prehistoric hominids.

GEOL 300. Mineralogy (3) I. Minerals; the chemistry, crystallography, identification, classification, association and genesis of the rock-forming and economic minerals. Two lectures and one three-hour laboratory. Prerequisite or corequisite: GEOL 104 and CHEM 125 or CHEM 135.

GEOL 301. Lithology (3) II. Identification, classification and origin of igneous, sedimentary and metamorphic rocks. One lecture and two two-hour laboratories. Prerequisite: GEOL 300.

◆ **GEOL 304. Geology of the National Parks** (4) II, alternate years and summer. U.S. regional geology as illustrated in the national park system. Three lectures and one two-hour laboratory. Prerequisite: GEOL 100 or GEOL 104.

◆ **GEOL 305. Life of the Geologic Past** (4) Summer only. Nontechnical study of fossils and the factors that influence the progressive development of life through geologic time. Three lectures and one two-hour discussion-demonstration laboratory. For nonscientists; not open to geology majors in the B.S. program; not open to students with credit for GEOL 315. Prerequisite: GEOL 100 or GEOL 101 or GEOL 105.

GEOL 306. Rocks and Minerals (4) Summer only. Non-technical study of earth materials as illustrated by gems, minerals, and rocks. Two lectures and two two-hour laboratories. Not open to geology majors in B.S. program. Credit not given for GEOL 306 and GEOL 300. Prerequisite: GEOL 100 or GEOL 104.

GEOL 307. Sedimentary Petrology (3) II. Classification, origin, megascopic identification, and laboratory analysis of sedimentary rocks. Two lectures and one two-hour laboratory. Prerequisite: GEOL 301.

GEOL 308. Principles of Stratigraphy (3) II. Principles of stratigraphy, methods of correlation, and reconstruction of depositional environments. Two lectures and one two-hour laboratory and discussion section. Prerequisites: GEOL 105 and GEOL 301.

GEOL 309. Structural Geology (3) II. Identification and interpretation of geologic structures; mechanical principles of deformable bodies, fracture and faulting, flow and folding; elementary concepts of tectonics. Two lectures and one three-hour laboratory. Prerequisites: GEOL 104, PHYS 201 or PHYS 211, and MATH 129 or equivalent.

GEOL 310. Geomorphology (3) II. Nature and classification of landforms and processes that produce them; geomorphic systems in relation to varied geologic structures, rocks, and climates. Two field trips required. Prerequisite: GEOL 104.

GEOL 315. Invertebrate Paleontology (3) I. Classification, evolution and paleoecology of the fossil invertebrates. Two lectures and two one-and-one-half-hour laboratories. Field trips required. Not open to students with credit for GEOL 305.

GEOL 322. Human Environmental Geology (3) I. Aspects of geology critical to wise use of human environment. One half-day field trip required. Credit not given for the B.S. degree in geology. Prerequisite: GEOL 104.

GEOL 393. Field Methods (2) I. First half of semester only. Use of instruments and methods applied to field problems in geology. Open to students planning to take GEOL 493 or GEOL 494. One four-hour session. Two field trips required. Prerequisite: consent of instructor.

GEOL 401. Economic Geology (3) I Alternate years. Classification and genesis of metallic ore deposits illustrated by study of classic areas. Two lectures and one three-hour laboratory. Field trip required. Prerequisites: GEOL 309 and GEOL 301.

GEOL 411. Optical Mineralogy (2) I. First half of semester only. Optical properties and methods of studying natural substance with a polarizing-light microscope. Two lectures and two two-hour laboratories. Prerequisite: GEOL 300.

GEOL 412. Advanced Historical Geology (3) II. Regional and stratigraphic geology, including classical areas in North America and Europe. Prerequisites: GEOL 308 and GEOL 315.

GEOL 416. Petroleum Geology (3) I. Alternate years. Principles and methods involved in the exploration for oil and gas. Two lectures and one three-hour laboratory. Prerequisites: GEOL 308 and GEOL 309.

◆ **GEOL 418. Geology of Ohio** (3) I. Alternate years. Bedrock and surficial geology of Ohio; state's economic-mineral resources. Two lectures and one two-hour laboratory. Three full-day field trips required. Credit not given for the M.S. degree in geology. Prerequisites: GEOL 100 or GEOL 104 and GEOL 105.

GEOL 419. Vertebrate Paleontology (3) II. Alternate years. Fossil vertebrates and their morphology, classification and evolution. Two lectures and one two-hour laboratory. Credit not given for both GEOL 419 and GEOL 305. Prerequisite: GEOL 100 or GEOL 101 or GEOL 105 or BIOL 204.

GEOL 420. Environmental Aspects of Geology (3) I. Contributions of geological concepts to environmental concerns. One half-day field trips required. Credit not given for both GEOL 322 and 420. Prerequisites: GEOL 104 and GEOL 310 or consent of instructor.

GEOL 422. Environmental Geology Report Writing (1) I. Preparation of environmental geology report for a single Ohio township. Several individual field trips to area. Corequisite: GEOL 322 or 420.

GEOL 423. Tectonics U.S.A. (3) II. Examination of major structural/physiographic provinces in the 48 contiguous states from the standpoints of the nature and origin of major structural features and plate tectonic concepts. Prerequisites: GEOL 308 and GEOL 309.

GEOL 424. Igneous and Metamorphic Petrology (4) II. Classification, mode of occurrence and genesis of igneous and metamorphic rocks. Three lectures and one three-hour laboratory. Prerequisite: GEOL 411.

GEOL 425. Microinvertebrate Paleontology (2) II. Alternate years. Fossil microinvertebrates; morphology, phylogeny, classification and identification. Two two-hour discussion and laboratory sessions. Prerequisite: GEOL 315 or consent of instructor.

GEOL 431. Introduction to Geochemistry (3) I. Principles of mass action, acidity, solubility, and introductory thermodynamics; applications to natural systems. Prerequisite: CHEM 126.

GEOL 432. Geophysics (2) II. Earthquake seismology; gravity, magnetic, and temperature fields of earth, paleomagnetism; radio-active dating, plate tectonics. Prerequisites: GEOL 309, PHYS 211, and MATH 131; or consent of instructor.

GEOL 433. Stratigraphic Chorology (3) I. Biochronology, evolution, and distribution of fossil faunas through geologic time. Two lectures and one two-hour laboratory. Prerequisite: GEOL 315 and GEOL 308.

GEOL 472. Marine Geology (3) II. Alternate years. Processes, sediments, and organisms of modern marine environments, interrelationships and expression in rock record. Prerequisite: consent of instructor.

GEOL 473. Field Experience in Marine Geology (1) II. Alternate years. Field experience in marine environments as related to geologic record. Prerequisite or corequisite: GEOL 472, consent of instructor.

GEOL 475. Workshop in Seismology (1) I, II. Supervised program in theory of seismology; operation of seismological observatory, interpretation of seismic records. May be repeated to four hours. Prerequisite: consent of instructor. Graded S/U.

GEOL 480. Seminar in Geology (2) I, II. Study of selected topic. May be repeated to four hours. Prerequisite: consent of instructor.

GEOL 483. Coastal Marine Geology (3) Summer only. A study of inshore and nearshore geological processes, sedimentation patterns, and landform development. Prerequisites: physical and historical geology. Taught at Gulf Coast Research Laboratory under their number GEOL 431.

GEOL 490. Geological Problems (1-3) I, II. summer. Individual work for student who has shown proficiency and marked degree of independence in work. May be repeated to four hours. Prerequisite: consent of instructor.

GEOL 493. Field Experience (6) Summer only. Recognition and study of geologic structures, landforms, and rock units in the field. Written report required. Not open to B.S. geology majors. Prerequisites: GEOL 104 and GEOL 105, or GEOL 304 and consent of instructor.

GEOL 494. Field Geology (6) Summer only. Principles and practice of field geology and geologic mapping. Final map and report required. Prerequisites: GEOL 308, GEOL 309, and consent of instructor.

GEOL 496. Field Course in Modern Marine Environments (1-6) Summer only. Field study of shallow-water marine environments. Prerequisite: consent of instructor.

German (GERM)

Entering students who had German in high school should take the placement test during summer preregistration or prior to enrollment in a course.

GERM 100. Introduction to Language Study: German (1) I, II. Comparison and contrast of cognate vocabulary, structure and syntax of English and German; interrelationship between language and culture. Not open to students who have completed GERM 102.

GERM 101. Elementary Language and Culture I (4) I, II. Cultural approach to beginning language study in the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

GERM 102. Elementary Language and Culture II (4) I, II. GERM 101 continued. Four class periods and laboratory practice each week. Prerequisite: GERM 101, or by placement.

GERM 117. Beginning Conversational German I (2) I. Basic conversational German. Suggested as a supplemental course to accompany GERM 101, or may be taken independently. Not open to students who have completed GERM 102.

GERM 118. Beginning Conversational German II (2) II. Basic conversational German continued. Prerequisite: GERM 117 or GERM 101 or permission of instructor. Not open to students who have begun or completed GERM 201.

GERM 131. Beginning Reading German (3) II. Development of reading skills, including attention to major problems of syntax and vocabulary. Not open to majors or minors, nor to students who have taken GERM 102.

GERM 201. Intermediate German I (3) I, II. Grammar review; development of the four skills. Three class periods and laboratory practice each week. Prerequisite: GERM 102, or by placement.

GERM 202. Intermediate German II (3) I, II. GERM 201 continued. Three class periods and laboratory practice each week. Prerequisite: GERM 201, or by placement.

GERM 217. Intermediate Conversational German I (2) I. Practice in conversation at the intermediate level. Suggested as supplemental course to accompany GERM 201, or may be taken independently. Not open to students who have begun or completed GERM 317. Prerequisite: GERM 118 or 102 or permission of instructor.

GERM 218. Intermediate Conversational German II (2) II. GERM 217 continued. Not open to students who have begun or completed GERM 318. Prerequisite: GERM 217 or 201 or permission of instructor.

GERM 231. Scientific and Technical Reading (3) I. Development of reading and translating proficiency in scientific, technical and expository prose. Vocabulary building, analysis of syntax and grammar for reading purposes. Prerequisite: GERM 102 or equivalent.

GERM 260. Modern German Literature in Translation (3) I, II. Readings in English of internationally known authors from German-speaking countries. May include Kafka, Mann, Hesse, Brecht, Grass and others. Course does not count towards a German major or minor.

GERM 300. Introduction to Study Abroad (1) II. Preparation for study abroad. Limited to Salzburg and German Exchange Program participants. Course does not count towards German major or minor. Graded S/U.

GERM 311. Introduction to Literature: 20th Century (3) I. Representative authors of the 20th century; development of reading skills and vocabulary necessary for discussion of literature. Prerequisite: GERM 202, or by placement.

GERM 313. Introduction to Literature: 18th and 19th Centuries (3) II. Major authors and representative works of the 18th and 19th centuries; literary movements as reflection of culture; development of reading skills. Prerequisite: GERM 202, or by placement.

GERM 315. German Culture and Civilization (3) I, II. Cultural-historical treatment of the social, intellectual and artistic life of the German-speaking peoples from medieval times to World War II. Lectures, audio-visual presentations, and readings in English.

GERM 316. Contemporary German Life (3) I, II. Lecture-rearing course on contemporary East and West Germany. Rebuilding and development of the two German states from 1945 to the present. political and social systems, geography, education, cultural life, mass media, patterns of daily living. Lectures, audio-visual presentations, and readings in English.

GERM 317. Composition and Conversation I (3) I. Extensive practice in speaking and writing German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 202, or by placement.

GERM 318. Composition and Conversation II (3) II. GERM 317 continued. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 317 or permission of instructor.

GERM 319. German Phonetics and Pronunciation (1) II. Theory and practice of German pronunciation; introduction to phonetic principles. Prerequisite: GERM 102.

GERM 331. Workshop in Translation (3) II. Small group work in German to English translation of scientific, technical or business writing, or other types of expository prose in the student's specialty. May be repeated to six hours with different projects. Prerequisite: GERM 231 or GERM 201 or permission of instructor.

GERM 360. Literature in Translation (3) On demand. Variable topic course on German literature in translation; may center on authors, periods, genres or themes. May be repeated to six hours with different topics. Prerequisite: previous literature course in any department, or permission of instructor. Course does not count towards a German major or minor.

GERM 380. Topics in German Language, Thought or Culture (1-3) On demand. Topic chosen to meet curriculum needs and student requests. May be repeated to six hours with different topics. Prerequisite or corequisites: GERM 317 and GERM 311 or 313 or 331.

GERM 407. Classical Age of German Literature (3) Alternate years. Selected works from classical period of German literature, especially the writings of Goethe and Schiller. Prerequisites: GERM 311 or 313, GERM 318.

GERM 409. German Romanticism (3) Alternate years. Major authors of the romantic era; introduction to the theoretical and philosophical representatives. Prerequisites: GERM 311 or 313, GERM 318.

GERM 411. Modern German Drama (3) Alternate years. Selected major representatives of modern German drama from Hauptmann to the present. Prerequisites: GERM 311 or 313, GERM 318.

GERM 412. Modern German Prose (3) Alternate years. Selected major representatives to prose fiction from about 1900 to the present. Prerequisites: GERM 311 or 313, GERM 318.

GERM 415. The German Film (3) On demand. Cultural and literary aspects of German film; emphasis may be on important developments in German filmmaking, thematic aspects of film, or on interrelationships between literary and cultural phenomena and the film.

GERM 417. Advanced Composition and Conversation (3) I. Development of increased facility in speaking and writing. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

GERM 418. Stylistics, Syntax and Structure of German (3) II. Practice and problems of writing style and syntax. Descriptive study of grammatical structures; contrastive analysis of English and German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

GERM 419. German Drama Workshop (3) II. Practical advanced linguistic training through active participation in theatrical projects; advanced phonetics; methods of utilizing dramatic productions as part of foreign language instruction. Prerequisite: GERM 417 or permission of instructor.

GERM 431. Advanced German-English Translation (1-2) On demand. Analysis and application of translating techniques; attention to levels and areas of style. Intensive general practice followed by work on individual projects. May be repeated to six hours with different projects. Prerequisites: six hours from GERM 317 and/or GERM 318 and/or GERM 331.

GERM 432. Advanced English-German Translation (1-2) On demand. Analysis and application of translating techniques; expansion on working vocabulary and idiomatic basis in German. Treatment of structural differences between languages through error analysis. General practice; individual projects. May be repeated to six hours. Prerequisites: six hours from GERM 317 and/or GERM 318 and/or GERM 331.

GERM 480. Selected Topics in German (1-3) On demand. Topic chosen from literature, culture or language to meet curriculum needs and student requests. May be repeated to six hours with different topics. Prerequisites: GERM 318 and two courses from GERM 311, 313, 331, 380.

GERM 482. Introduction to Germanic Linguistics (3) I. Derivation of modern Germanic languages from Proto-Indo-European. Classification and history of the Germanic language group. Development of the German language to New High German. Prerequisites: GERM 202 or permission of instructor.

GERM 491. Studies in German (1-3). Independent study project for advanced students in German. May be repeated to six hours with different projects. Prerequisite: arrangement with instructor and consent of department chair prior to registration.

Gerontology (GERO)

GERO 400. Special Topics in Gerontology (1-3) On demand. Independent study on subject matter related to gerontology not otherwise offered. May be repeated. Prerequisite: consent of program director.

GERO 410. Administration and Aging (2) I. Administration in field of aging; legislation, bureaucratic structures, and model programs. Prerequisites: enrollment in gerontology program and senior standing, or permission of program director.

GERO 420. Proposal Writing in Gerontology (2) I. Funding potential, methods, design, and proposals in the field of aging. Prerequisites: enrollment in gerontology program and senior standing, or permission of program director.

GERO 491. Practicum in Gerontology (2-10) I, II, summer. Experience in working under supervision in selected agencies providing services to the aged. Emphasis on practice rather than observation. May be repeated. Prerequisites: enrollment in gerontology program or permission of program director; junior or senior standing; 2.00 GPA prior to registration. Graded S/U

GERO 493. Practicum Seminar (1) I, II, summer. Analysis of problems and experiences encountered in practicum. Prerequisites: permission of program director and GERO 491. Graded S/U.

Health and Community Services (HCS)

(HCS) 100. Seminar in Health and Community Services (1-5) On demand. Interdisciplinary study of special health or community service topics. May be repeated. Prerequisite: consent of dean's office.

(HCS) 440. Seminar in Health and Community Services (1-5) On demand. Interdisciplinary study of special health or community service topics. May be repeated. Prerequisite: consent of dean's office.

(HCS) 491. Field Experience in Parasitology and Medical Entomology (3) I, II, summer. On demand. Field or clinical experience in one or more public health, industrial, or agricultural locations. May be repeated at different stations, but not for credit toward graduation beyond first registration. Prerequisite: approval of program director. Graded S/U.

Health Education (HED)

(See health, physical education and recreation.)

History (HIST)

HIST 151. World Civilizations (3) I, II. Comparative study of selected Western and Asian civilizations in terms of how and why economic, social, political, and intellectual factors shaped and defined history of ancient and medieval worlds.

HIST 152. The Modern World (3) I, II. Comparative study of how and why selected economic, social, political, and intellectual revolutions of the modern world have transformed and are shaping contemporary European and non-Western cultures.

◆ **HIST 205. Early America** (3) I, II. Selected constitutional, intellectual, political, and social developments that defined and shaped America between its first European settlement and the end of the Civil War and Reconstruction.

◆ **HIST 206. Modern America** (3) I, II. How and why selected economic, intellectual, political, and social developments transformed post-Civil War America and shaped 20th-century American society.

HIST 240. Historical Perspectives on American Culture (3) I. Interdisciplinary study of the historical development of selected aspects of American culture with emphasis on the relationships between historical events and cultural expression. Recommended for students electing history/American studies for general education or group requirements (same as AMST 240). May be repeated.

◆ **HIST 280. Asian Civilizations** (3) I, II. Comparative study of selected modern Asian societies which focuses on cultural, economic, political, and social tradition and change in the world's oldest continuous civilizations.

◆ **HIST 291. Studies in History** (1-3). Introductory approaches to history. Content and theme vary with instructor. For students electing history for general education or group requirements.

HIST 301. American Military History (3) I. Development of American military institutions, policies, strategy, tactics from American Revolution to present. Not open to students with credit in MILS 401.

HIST 302. Crime, Poverty, and Violence in 19th Century (3) II. Development of criminal justice systems in England, France, and U.S. Impact of differing national cultures on emergence and development of professional police in these countries.

HIST 303. World War II (3) I. How and why Atlantic-European, Mediterranean, and Pacific-Asian theaters of war produced global dynamics in three acts: 1. 1939-1942 - German and Japanese expansion, innovative tactics; 2. 1942-43 - mobilization and technology, propaganda and intelligence, air and sea war; 3. 1944-45 - U.S. and U.S.S.R. counter-expansion, grand strategy, and politics of war.

HIST 304. The Bible as History: The New Testament (3) II. Based on modern Biblical scholarship; analyzing the New Testament as a historical medium reflecting the cultural matrix of Greco-Roman Palestine, conveying the eschatological message of Jesus through his disciples, and maneuvering the evangelical mission of the early Christian church.

HIST 305. The Bible as History: The Old Testament (3) I. Major problems relating to text, content, and context of Old Testament as historically interpreted in modern Biblical scholarship; keyed to demonstrating authenticity of evidence, integrity of explanation, and continuity of experience found in Bible.

◆ **HIST 306. History of Ohio** (3) I, II. Precolonial background, early exploration, settlement; Northwest Territory; Ohio in French and Indian War, American Revolution, War of 1812; Ohio's place in national development.

HIST 307. Afro-American History (3) I. History of black Americans from African origins, slavery, and emancipation through rural Southern and 20th century urban experiences.

HIST 309. Latin America: Period Before Independence (3) I. Latin-American history treating these phases: pre-Columbian; discovery and conquest; colonial; wars of independence. Role of indigenous and European cultures in development of Latin America.

HIST 310. Modern Latin America (3) II. Common and unique social, economic, political, and intellectual features of Latin American nations and Latin America in world affairs.

HIST 311. United States-Latin American Relations, 1810-Present (3) II. Development of the Western Hemisphere idea, Panamericanism, Dollar Diplomacy, The Good Neighbor Policy, cooperation in World War II, the Cold War, the role of multinational corporations and U.S. response to social change in Latin America. No prerequisites.

HIST 315. Slavery in Americas (3) II. African slave trade and various slave societies which that traffic gave birth to in Western hemisphere. Emphasis on Cuba, Jamaica, Brazil, and American South.

HIST 316. Famine and Revolution in Peasant Nations: Historical Roots (3) II. Indonesia as model to understand problems facing peasant nations in Asia, Africa, and Latin America. European imperial penetration and traditional peasant values; why peasant societies are vulnerable to periodic famine. Revolutionary changes that have transformed England, Russia, Japan, and China to understand what changes must take place if industrialization is to succeed in peasant nations.

HIST 320. Social History of American Medicine (3) II. Leading theorists; major social and public policy determinants of health care in America from 1780 to present.

HIST 323. History of American Journalism (3) I, II. American journalism from colonial newspapers to multimedia age, emphasizing 20th century.

HIST 325. Business History of the United States (3) II. American business in its historical setting from 1607 to present. Interaction between economic and political forces in explaining unique role private enterprise has played in American life.

HIST 326. Women in American History (3) I, II. Major issues and movements in American history that have involved women from colonial period to modern times.

HIST 330. Practicum in History (2) II. A series of practical exercises for prospective teachers of history and social studies at the primary and secondary levels that demonstrates how to identify, select, and organize historical data from available school-system materials (especially textbooks) for effective classroom treatment of topics and themes. Strongly recommended as a supplement to EDCI 351 or 376.

HIST 338. American Environmental History (3) II. Three centuries of changing American attitudes and actions toward natural environment, rise of conservation movement and development of ecological perspective.

HIST 340. World of Bible (3) I. Major civilizations of ancient Near East (Mesopotamia, Egypt, Syria, and Israel); defining, comparing, and contrasting Oriental and Biblical social traditions as embodied in respective institutions, art, literature, religion.

HIST 357. English Origins of American Law (3) II. Medieval and early modern English history; origin and growth of legal and constitutional doctrines, institutions, and procedures important to understanding American legal system.

HIST 360. Major Personalities of 20th Century (3) II. Biographical study of individuals whose lives made substantial changes in aspects of modern society, examined both as individuals and as representatives of major movements of 20th century.

HIST 363. French Revolution and Napoleon (3) II. Impact of French Revolution on society of Old Regime; formation of revolutionary creed; Great Revolution, Jacobin Republic, Thermidor; Napoleon and principles of 1789.

HIST 367. Hitler's Germany: Rise and Fall of Nazism (3) I. Major developments in Germany from defeat in 1918 through collapse in 1945 and recovery in Cold War era. Weimer Republic, Hitler, Third Reich, post-war reactions and conditions; keyed to causes and effects of Nazi totalitarianism and racism.

HIST 377. 20th Century Europe (3) I. European historical development in 20th century; major forces, events, and experiences that have shaped Europe and its place in contemporary world.

HIST 381. United States and Asia (3) II. U.S. relations with China, Japan, India, and southeast Asia in 20th century; interaction of domestic politics and foreign policy; Asian nationalism, militarism, communism; America's involvement in wars and peace-making.

HIST 382. Chinese Culture and Institutions (3) I. Unique cultural and institutional developments of traditional China and relations with Korea. Intrinsic value of broadening perspectives through exposure to major non-Western cultural experience.

HIST 386. Japanese Culture: Multi-Media Approach (3) II. Higher culture in traditional Japan. Religion, visual arts, literature, theatre, and uniquely Japanese arts. Political and institutional history as it relates to cultural development.

HIST 391. Special Studies in History (1-3) I, II. Content and theme vary with instructor. Designed to meet needs and interest of nonmajors.

HIST 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format used. Requirements usually completed within time format. May be repeated if topics differ on approval of adviser.

HIST 400. Topics in History (2-3) On demand. Study of selected topics or subject areas.

HIST 401. Caesar and Christ: Social Worlds of Late Antiquity and Early Christianity (3) I. Basic issues and problems involved in tensions and conflicts between pagan and Christian that were eventually accommodated in 4th century A.D.; social disaffection, political resistance, and cultural alienation.

HIST 411. Modern Mexico (3) II. Analysis of first Latin-American state to experience political, social, and economic revolution in 20th century; causes of the revolution, leaders and institutions produced, emergence of Mexico as relatively stable and progressive state.

HIST 413. Caribbean and Spanish Main (3) II. Political, economic, and social development of Greater Antilles and Spanish Main from 17th to 20th centuries; war and trade, slavery, revolution, caudillism, and communism in Caribbean.

HIST 414. Canada (3) I. European colonial rivalry, problems of European-settled colonies, emergence of colonial self-government, confederation movement, search for national identity, nature of commonwealth nation, role as mediator in Anglo-American relations, importance as independent neighbor.

HIST 415. Spain and Portugal (3) II. Political, economic, and social development of Iberian peninsula from invasion of Moors to 20th century dictators; reconquest, reign of Hapsburgs, Spanish Civil Wars, regimes of Franco and Salazar.

◆ **HIST 419. Westward Movement in America** (3) I. Development of Trans-Mississippi West during 19th century; American Indian, territorial expansion, sectional conflict, economic development.

HIST 420. Topics in American West (3) II. Selected topics in history of Trans-Mississippi West; frontier literature, territorial system, California, conservation, Indian affairs, modern west.

◆ **HIST 421. American Colonial History, 1492-1763** (3) I. European backgrounds of American history, establishment of European settlements and institutions, emergence of colonial culture, conflict between France and England for New World.

◆ **HIST 422. American Revolutionary Era, 1763-1815** (3) II. Causes, course, and consequences of War for Independence; organization of government and emergence of national party system; economic, social, diplomatic problems of young republic.

HIST 425. Conflict and Division in U.S. (3) I. Economic, social, political institutions of 1815-1860; Old South and forces that produced Civil War.

HIST 426. Civil War and Reconstruction, 1861-1877 (3) II. Political, economic, and cultural conditions during War; resulting problems to peoples and governments of both sections continuing through postwar period.

HIST 427. American South, 1865-Present (3) II. Reconstruction South, new industrial growth, evolution of Southern agriculture, racial and labor problems. South in American political life, southern education and culture, South today.

HIST 428. Emergence of Modern America, 1877-1900 (3) I. Transformation of U.S. from isolated, agrarian nation into modern, industrialized world power; economic, social, cultural, and political problems which attended this change.

HIST 429. Progressive Era and Years of Republican Ascendancy, 1900-1933 (3) II. American political and economic progressivism; great crusade of World War I; "normalcy" and business society of Twenties; great crash and early depression years; intellectual, cultural, social change of Roaring Twenties.

◆ **HIST 430. Recent U.S. History** (3) II. Politics, public policy, and society from the New Deal to the present.

HIST 433. American Constitutional History (3) I. Constitutional developments from framing of the Constitution in 1787, which established a federal republic that protected states rights, to creation of a national republic after Civil War, aiding rapid industrialization and creating need for business regulation, social welfare state, national protection of civil rights, and expanded role of presidential leadership.

HIST 436. American Social and Intellectual History (3) I. Select topics in American social and emotional experience during 19th and 20th centuries: nationalism, regionalism, urbanization, immigration, ethnicity, professionalism, gender, childrearing, education, mental health. No prerequisites.

HIST 437. U.S. as World Power in 20th Century (3) I. American involvement in world affairs; imperialism in Asia and Latin America; World War I - response to German militarism and Russian communism; postwar "isolationism"; World War II - background to Pearl Harbor, wartime alliances, peace settlements.

HIST 438. U.S. Foreign Policy; World War II-Present (3) II. Origins of Cold War and containment policy toward Soviet Union, U.S. response to communism in China, Korean War; complex causes and controversial strategies; U.S. involvement in and failure in Vietnam; Cuban missile crisis and movement toward "detente."

HIST 441. Classical Hellenism (1000-400 B.C.) (3) I. Ancient Greek society and culture from "dark ages" through "golden age" of 5th century. Resourcefulness of Hellenism in democratic politics, imperialistic policies, and classic products of Periclean Athens. Weakness of Greek civilization in coping with crises engendered by Atheno-Peloponnesian war.

HIST 442. Roman Revolution: From Gracchi Through Caesar Augustus (3) II. Crisis of social turbulence, political violence, and cultural ambivalence that marked Rome's transition from city-state to world state; how and why Roman archaism, republicanism, and imperialism contributed to collapse of Late Republic and creation of Early Empire.

HIST 444. The Making of Europe (3) II. Cultural, religious, political, and economic aspects of the Middle Ages which laid the framework for modern European civilization; cross-cultural contacts with the Christian and Islamic East.

◆ **HIST 448. Modern European Society and Thought** (3) II. Major social and intellectual trends in modern European society, including liberalism, socialism, Marxism, fascism, existentialism and post-war disillusionment.

HIST 454. European Foreign Relations, 1914-Present (3) I. Foreign policies and diplomatic practices of the great powers and their statesmen: World War I, postwar quest for stability; World War II, Europe in the Cold War; contemporary problems.

HIST 458. England, 55 B.C.-1689 (3) I. Major constitutional, economic, political, religious, and social developments through 17th century: making of the Anglo-Saxon kingdom, feudal government and society, crisis of late medieval England, Tudor restoration of order, 17th-century civil war and revolution.

HIST 459. Great Britain, 1689-Present (3) II. Growth of parliamentary government; impact of the Enlightenment, French Revolution, and industrialization; Victorian England; political and economic reform; two world wars and their consequences.

HIST 462. British Empire-Commonwealth (3) I. Rationale of imperialism, expansion of Britain overseas, development of colonial holdings, evolution of concept and reality of Commonwealth of Nations.

HIST 464. History of France Since 1815 (3) II. Social and economic development of France, 1815 - Third Republic; Jacobin radicalism, emergence of French labor movement; France between two world wars; Vichy and the Resistance; problems of Fourth and Fifth Republics.

HIST 469. Medieval and Imperial Russia, 900-1825 (3) I. Radical, political, and religious origins; development of autocracy; national and imperial problems to death of Alexander I.

◆ **HIST 470. Modern Russia, 1825-Present** (3) II. Revolutionary origins; social, economic, political position in 19th and 20th centuries.

HIST 471. Education and Revolution In Russia (3) II. Russian-Soviet struggle to create perfect society dominant in world through interplay of education and revolutionary ideology as reciprocal political tools.

HIST 480. Senior Seminar in History (3) I, II. For selected senior history majors. Examination of historical literature, problems of historical research, discussion of various historical methods. Open to history majors by invitation only.

HIST 481. History of Africa, 18th Century-Present (3) II. Anti-slavery movement, rise of forest and savannah kingdoms, Islamic revival, impact of Christianity, European exploration, imperialism, colonialism, nationalism, and rise of modern African states.

HIST 483. Revolution and Tradition in Modern China (3) II. China from decline of Ch'ing dynasty to rise of People's Republic; problems of culturalism, nationalism and Maoist strategy for successful peasant revolution. China's cultural legacy, struggles for unity and independence, China's relations with U.S.

HIST 486. Japan: New Superstate (3) II. Japan's successful modernization since "opening" to West in 1853; political development, industrialization, expansion; Japan's rise from defeat in World War II to world economic power.

HIST 495. Readings in History (1-3) I, II. Individual readings in consultation with instructor in fields of special historical interest. Prerequisite: consent of department chair and instructor.

Home Economics (HOEC)

◆ **HOEC 101. Clothing Design and Construction** (3) I, II. Aesthetic principles of design and analysis of clothing construction methods. Evaluation of basic techniques and their application to construction of garments. Consumer buying of clothing analyzed.

◆ **HOEC 103. Textiles** (3) I, II. Fiber, yarn and fabric structures; finishes; color and design. Selection and care of fabrics for personal and household uses.

◆ **HOEC 105. Personal and Family Relationships** (3) I, II. Growth and development of college students as individual and in social relationships in family, college, community; activities and functions of present-day family.

HOEC 107. Black Families in America (3) I, II. Living patterns of the American black family; historical development, present status, strengths, problems, and prognosis.

◆ **HOEC 120. Survey of Child and Family Community Services** (3) I, II. Institutions and agencies serving children and families. Principles of effective services including qualifications and preparation of professional people.

◆ **HOEC 123. Introduction to Early Childhood Education** (3) I, II. Conceptualization of early childhood education. Review of experiences provided in different early education programs.

HOEC 195. Telecourse on Current Topics In Home Economics (1-3) On Demand. Selected introductory topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.

HOEC 202. Intermediate Clothing and Basic Flat Pattern (3) I, II. Clothing construction techniques and couture methods as applied to commercial designer patterns. Basic flat pattern knowledge and skills resulting in design and execution of an original muslin garment. One hour lecture and four hours of lab. Prerequisites: HOEC 101 and HOEC 103.

HOEC 204. Introduction to Fashion Merchandising (3) I, II. Fashion design and terminology; organization of fashion industry and career opportunities in fashion. Prerequisites: HOEC 101 and HOEC 103 or consent of instructor.

◆ **HOEC 205. Home Management** (3) I, II. Effects of values and philosophy on decisions regarding family resources: time, energy, knowledge, ability, skills and attitudes in achieving family goals. Work simplification, history of discipline, and evaluation in home management.

HOEC 206. Household Equipment (3) I, II. Selection, operation, care and management of household equipment for efficient use, safe operation and increased consumer satisfaction. Two hours lecture, two hours lab per week. Lab fee.

◆ **HOEC 207. Essentials of Nutrition** (3) I, II. A non-technical course. Application of fundamental principles of nutrition in selection of adequate diet for optimal health; current nutrition controversies. Not open to home economics education, dietetics, or food and nutrition majors.

HOEC 210. Fundamentals of Food Science (3) I, II. Art and science of foods. Scientific principles reinforced by actual preparation of foods and meal service. Lab fee: One hour of lecture and four hours of lab.

HOEC 212. Meal Service Management (3) I, II. Management of available resources for planning, organization, preparation and service of family and commercial type meals. Controls in purchasing, receiving, storage and costing. Lab fee. One hour of lecture and four hours of lab. Prerequisite: HOEC 210.

HOEC 219. Fabric Use in Interior Design (3) I. Fundamental workroom techniques used in construction of textile products for residential and commercial interiors.

HOEC 223. Child Study (2) II. Development of young children as individuals and in groups using observation and other data gathering techniques

HOEC 224. Program Planning and Creative Experiences for Young Children (3) I, II. Play, materials, methods of presentation and ways of enhancing creativity in children under six. Planning, carrying out and evaluating experiences and activities with groups of young children.

HOEC 250. Foundations of Home Economics (3) I. Home economics: the profession, the role of the educator, and understanding students; development of educational strategies including peer teaching thru field and clinical experiences. One hour of seminar and three hours of experience in a professional setting.

HOEC 295. Telecourse on Current Topics in Home Economics (1-3) On demand. Selected advanced topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.

HOEC 302. Foundations for Marriage and Family Relations (3) I, II. Development of basic philosophy about marriage and family relations in a democratic society. Emotional, psychological and physical relationships and family interrelationships. Prerequisites: HOEC 105 or SOC 101; junior or senior standing.

HOEC 303. Home Furnishing (3) I, II. Today's interiors from standpoint of use, economy, beauty, and individuality. Recognition and evaluation of space needs, window, wall, and floor treatments as well as furnishings and accessories. Prerequisite: ART 101 or ART 102.

HOEC 305. Integrating Career and Family (3) I. Issues facing dual-career families; applied problem-solving as approach to family decision making, communication, childrearing, career patterning. Not open to students with credit for BA 305.

HOEC 307. Nutrition (3) I, II. Principles of nutrition with applications to planning dietaries for individuals under different conditions. Lab fee. Two hours of lecture and two hours of lab. Prerequisites: HOEC 212 and CHEM 116 or 306.

HOEC 310. Microwave Oven Application (2) I. Selection, care and effective utilization of the microwave appliance and accessories. One hour lecture, two hour lab. Lab fee. Prerequisite: HOEC 206.

HOEC 311. Home Management Laboratory (3) I. Integration and application of concepts; processes and principles of family resource management within household environment. Lab fee: Four hours lecture/lab plus arranged. Prerequisites: HOEC 205 and HOEC 307.

HOEC 313. Textile Analysis (3) I, II. Economic, political and cultural forces related to production and use of historic and modern textiles; emphasis on recent technical developments and consumer textiles. Prerequisite: HOEC 103.

HOEC 315. Residential Interiors (3) I, II. Application of design principles in residential interiors. Problem formulating and problem-solving in restoring and renovating residential interiors. Professional organization of design portfolio for residential employment. Prerequisites: CONS 235, DESN 301 and HOEC 303.

◆ **HOEC 320. Infant Development** (3) I, II. Growth and development of infants from conception to toddler stage.

HOEC 321. Child Development (3) I, II. Physical, emotional, social and cognitive development of children from conception to school age. Developmental theories and influences of family and society.

HOEC 322. Child Development Practicum (3) I, II. Supervised participation with pre-school children. One hour of lecture and six hours of lab. Must apply in the Child Development Center office one semester prior to participation. Prerequisite: HOEC 321 or EDFI 342.

HOEC 326. Foods of Other Cultures (2) I, II. Geographic, economic, and cultural influences on dietaries in selected regions of the world. Preparation and service of regional U.S. and foreign foods. Lab fee. One hour of lecture and two hours of lab. Prerequisite: at least one food content course.

HOEC 328. Preadolescent and Adolescent in Family and Community (3) I. Development and socialization of adolescents and preadolescents; youth problems, culture, and growth. A review of research relevant for intervention or service programming. Prerequisite: HOEC 105 or consent of instructor.

HOEC 331. Quantity Food Production Management (3) I. Preparation and service of quality foods for institutions and restaurants. Menu planning, food purchasing, and issuing of stores; supervision and cost control. Two hours of lecture and three hours of clinical experience. Prerequisite: HOEC 212.

HOEC 333. Institutional Kitchen Planning (3) I, II. Institutional kitchen design and evaluation of existing facilities. Space allocation of subsystems and efficient flow of materials. Selection and placement of equipment, floor, wall and window treatment; interior design. Two hours of lecture and two hours of lab. Prerequisites: HOEC 331, DESN 301.

HOEC 352. Vocational Home Economics in Secondary Schools (3) I. Principles, objectives, curriculum, instructional materials and methods of vocational home economics. No S/U grade for home economics majors. Prerequisites: HOEC 250, EDFI 302 or junior standing.

HOEC 353. Organization and Teaching in a Vocational Job Training Program (3) II. Techniques of teaching, occupational analysis, curriculum planning and supervision of cooperative education in school programs and in vocational and technical schools. No S/U grade for home economics education majors. Prerequisites: HOEC 250; HOEC 352 prerequisite or concurrent.

HOEC 354. Curriculum Management in Home Economics (2) II. Field experience and coordinated seminar examining curriculum management as it differs in urban, suburban, or rural schools. No S/U grade for home economics majors. Arrangements made in consultation with home economics education faculty. Prerequisite or corequisite: HOEC 352.

HOEC 389. Supervised Field Experience (1-5) I, II, summer. Supervised work experience of diversified nature in approved field site. Contact hours and specific requirements obtainable from authorized home economics faculty members in the specialized areas. May be repeated. Prerequisite: consent of department. Graded S/U.

HOEC 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. May be repeated on approval of adviser.

HOEC 401. History of Costume (3) I. Development of western costume from Egyptian times to present; emphasis on relation to modern costume to earlier forms of dress.

HOEC 402. Fashion Merchandising (3) I, II. Planning, selection, and marketing of fashion merchandise, including identification of a target customer, building a fashion image, financial planning, assortments and unit control, fashion promotion, and trend merchandising. Prerequisite: HOEC 204 or consent of instructor.

HOEC 403. Sociological and Psychological Aspects of Clothing (3) II. Cultural, sociological and psychological factors influencing clothing habits of individuals and groups are related to their environments. Prerequisites: SOC 101 and PSYC 201 and junior standing.

HOEC 404. Tailoring (3) I, II. Specialized techniques of professional tailoring used in construction of a suit or coat. Analysis of quality in ready-to-wear tailored garments. Prerequisite: HOEC 202 or consent of instructor.

HOEC 405. Family and Consumer Economics (4) I, II. Families' financial planning; conditions as they affect consumer decisions in relation to patterns of living, income, and goals. Not open to students with credit for BUSE 240.

◆ **HOEC 406. Housing the Family** (3) II. Selecting, financing and adapting housing for families with varying lifestyles and needs. Energy efficiency, government role in housing, renting and owning options, and psychological needs emphasized.

HOEC 407. Research in Human Development and Family Studies (3) I, II. Learning methods of research by completing a research project on a topic of the students' choice in the area of human development and family studies. Prerequisite: HOEC 105 or consent of instructor.

HOEC 408. Investigations in Family Life of Minority Groups (3) I. Directed investigation of family life of racial and cultural minority groups in United States. Prerequisite: junior or senior standing.

HOEC 412. Advanced Apparel Design (3) II. Creative expression and application of principles of apparel design through the media of flat pattern and draping. Development of original design from sketch to finished garment. One hour of lecture, and four hours of lab. Prerequisite: HOEC 202.

HOEC 413. Advanced Home Management (3) II. Alternate years. Recognition, integration, and application of management principles and concepts in a variety of family managerial situations. Utilization of appropriate technology. Prerequisite: HOEC 205 or consent of instructor.

HOEC 414. Experimental Clothing Construction (3) I. Experimental approach to factors influencing construction of apparel. Prerequisite: HOEC 202 or consent of the instructor.

HOEC 415. Home Management for Low Income Families (3) II. Alternate years. Managerial behavior of economically deprived families. Emphasis on improving managerial skills in identifying, conserving, increasing and using resources to realize family values and goals. Prerequisite: HOEC 205.

HOEC 416. Advanced Household Equipment (2) II Alternate years. Current trends, development and research in household equipment with implications for consumers. Research project related to students' professional interests required. One hour lecture, two hours lab.

HOEC 417. Home Furnishing Laboratory (3) II. Renovation and construction of various furnishings including refinishing, upholstering, slip covering and drapery making for home and professional purposes. Prerequisites: HOEC 101 or HOEC 219 and HOEC 303 or consent of instructor.

HOEC 418. History of Interiors (3) I. European and American furniture from 14th through 20th centuries with corresponding interiors; wall, window and floor treatments and decorative arts. Prerequisite: HOEC 303 or consent of instructor.

HOEC 419. Contract Interiors (3) I, II. Application of design principles in contract and commercial interiors. Space and facilities planning. Identification of interior equipment to facilitate a particular function. Professional organization of design portfolio for contract employment. Prerequisite: HOEC 319.

HOEC 421. Parent Education (3) I, II (even years), I (odd years). Parents as models, educators, advocacy/volunteer and policy roles. Teaching and planning programs on child development, parent-child communication and special needs are included. Prerequisite: junior or senior standing.

HOEC 422. Cognitive Development of the Young Child (3) I (odd years), I, II (even years). Contemporary theories of intellectual development of young children; research pertaining to specific concept areas and the development of related experiences. Prerequisite: HOEC 320 or HOEC 321 or consent of instructor.

HOEC 423. Organization of Programs for Young Children (3) I (odd years), I, II (even years). Factors to consider in organization and administration of programs for young children. Prerequisite: HOEC 322 or consent of instructor.

HOEC 424. Children Under Transitory Stress (2) I (odd years). Infants' and children's efforts to cope with situational stresses such as illness, hospitalization, death, divorce, separations from family, birth of siblings and illness or disability of parent. Prerequisites: HOEC 320, HOEC 321 or consent of instructor.

HOEC 425. The Hospitalized Child (3) I (even years). Analysis, synthesis and integration of theory, research and practice from a multidisciplinary perspective for understanding needs of hospitalized children. Prerequisites: HOEC 320, HOEC 321, or consent of instructor.

HOEC 426. Studies in Individual and Family Potential (3) I, II. Theories of human behavior and family interaction which promote fully functioning individuals and families. Family communication and various patterns of family adjustment to internal and external stress. Prerequisites: HOEC 105 or HOEC 302, or consent of instructor.

HOEC 427. Facilitation of Individual and Family Potential (3) II. Development of personal skills and personal awareness which facilitate effective interpersonal-familial and/or professional functioning. Methods of affirming self-esteem, encouraging authentic communications, and stimulating personal growth. Prerequisites: HOEC 105 and HOEC 426 or consent of instructor.

HOEC 428. Sexuality and the Family (3) II. Interrelationships of areas of human sexuality and family development/interaction. Intended for students with background in sexual physiology and psycho-social aspects of human sexuality. Prerequisite: PSYC 307 or HED 338.

HOEC 429. The Family in the Middle and Later Years (3) II (odd years). The family in the middle and later years, with emphasis on relationship between spouses, and with children and grandchildren. Identification and critical analysis of factors associated with success and problem areas for such families.

HOEC 431. Experimental Foods (3) I, II. Experimental methods of quality control and recipe standardization. Scientific reasoning applied to the methods of food preparation. Subjective and objective evaluation of results. Lab fee. Two hours of lecture and three hours of lab. Prerequisites: HOEC 212, CHEM 116 or consent of instructor.

HOEC 432. Advanced Nutrition (3) II. Topics in normal nutrition, including nutrients and their interrelationships. Application of nutrition principles in counseling individuals. Analysis of current literature for validity and content. Introduction to nutritional assessment. Two hours of lecture and four hours of lab. Prerequisites: BIOL 332 and CHEM 116.

HOEC 433. Advanced Food Production Management (3) II. Management principles and procedures in institutional or commercial food services. Selection, training and supervision of personnel. Food procurement, production and marketing. Clinical practicum. Two hours lecture and three hours of clinical experience. Prerequisite: HOEC 331.

HOEC 434. Diet Therapy (4) I. Diseases and dietary modifications they necessitate. Determination of rationale for inclusion or exclusion of specific foods in prescribed diet; clinical dietitian's role. Three hours of lecture and four hours of clinical experience. Prerequisite: HOEC 432.

HOEC 435. Nutrition for Infants and Young Children (3) I. Nutrition of infants and children in health and disease, from prenatal period to adolescence. Two hours of lecture and two hours of lab. Prerequisite: HOEC 207 or HOEC 307.

HOEC 436. Nutrition for the Aging (3) II. Nutritional needs of the aged. Menu planning, food purchasing and preparation. Psychological, physiological and socio-economic factors affecting dietary practices of the elderly in group and individual situations. Two hours of lecture and two hours of clinical experience. Prerequisites: HOEC 207 or HOEC 307, and BIOL 331 or BIOL 332, or consent of instructor.

HOEC 470. Independent Study (1-3) I, II, summer. For advanced students who want to conduct intensive study of selected problems in home economics. For undergraduate credit only. Prerequisite: consent of department chair.

HOEC 480. Seminar in Home Economics (1-3) On demand. In-depth examination of topics in home economics not covered by existing course work. Repeatable once. Undergraduate credit only.

HOEC 489. Internship (5-12) I, II, summer. Internship in a professional environment. Work settings are approved on an individual basis. May be repeated. Graded S/U.

HOEC 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Humanities (HUM)

HUM 101. Introduction to the Humanities (3) II. Experience of art including music, film, theatre, literature, dance, painting, sculpture, architecture, philosophy, and the combined arts.

Industrial Education (IE)

(See technology)

Industrial Engineering Technology (INET)

†**INET 122. Industrial Organization and Business Decisions** (3) I, II. Industrial organizations, problem solving, communications, organization structure and theory, profit and loss statements, financial ratios, breakeven charts, balance sheets.

†**INET 131. Operations Analysis** (4) I, II. Emphasis on engineering graphics as pertains to the preparation of flow process charts, man/machine charts, and multiple activity charts.

†**INET 132. Motion Study** (2) I, II. Fundamentals of motion study and its relationship to job descriptions, analysis, and evaluation.

†**INET 133. Statistics for Work Sampling** (1) I, II. Sampling, probability; organizing and analyzing statistical data as related to work sampling.

†**INET 134. Time Study** (4) I, II. Responsibilities of a time study technician and equipment utilized; emphasis on performance, rating, conducting a time study, determining allowances, work sampling.

†**INET 135. Methods-Time Measurement** (2) I, II. Determination of standard data for various jobs; emphasis on time and motion study.

†**INET 136. Methods Study** (2) I, II. Application of principles of a breakeven analysis, motion and time study and standard data to cost estimating. Completion of progress report pertaining to methods study project included.

†**INET 140. Production Control: Concepts and Problems I** (2) I, II. Production-inventory systems; forecasting and planning for production, scheduling for high volume production, operation sequencing, balancing.

†**INET 141. Production Control: Concepts and Problems II** (3) I, II. Application of logic on production planning, job shop planning and control, network planning, scheduling and design of production planning systems.

†**INET 142. Inventory Control** (4) I, II. Organizing and analyzing statistical data, sampling, probability, economic lot and order quantities, inventory costs, inventory control functions.

†INET 143. Quality Control (3) I, II. Quality assurance, product reliability; acceptance, attribute, and variable sampling; control charts as related to quality control.

†INET 144. Cost and Budget Control: Project Planning (4) I, II. Budget functions, concepts and responsibilities, budget variance analysis. Completion of a production planning project.

†INET 252. Plant Layout (3) I, II. Methods utilized in plant layout to determine best relationship between output, space, and manufacturing cost.

†INET 254. Utilities and Maintenance II (3) I, II. Plant heating and cooling systems, air control, preventive maintenance, safety, OSHA rules and regulations.

†INET 255. Material Handling (3) I, II. Determination of materials handling equipment for fixed and variable path and cost estimating for plant construction. Completion of a facilities planning project required.

†INET 261. Union-Management Relations (2) I, II. Development of American unions, methods of communication within an enterprise, collective bargaining, grievance procedures.

†INET 262. Wage and Salary Administration (2) I, II. Straight-time and incentive plans, production efficiency, various supplemental plans.

†INET 272. Social Responsibilities of Business (2) I, II. Population growth and its impact upon the economy, automation and positive or negative implications of jobs, influence of inflation on upper, middle, and lower class citizens, employer responsibilities to management and labor.

Industrial Environment Technology (ENVR)

(See technology)

Insurance (INS)

INS 300. Principles of Insurance and Risk (3) I, II, summer. Fundamental insurance and risk concepts; insurance company functions; legal aspects of basic insurance; homeowners property and liability, auto, life, and health coverages. No Prerequisite.

INS 465. Property and Liability Insurance Coverages (3) II. Protection provided by and legal aspects of fire, casualty, transportation, workmen's compensation, multiple-lines, and corporate surety-ship insurance coverages. Prerequisite: INS 300 or permission of instructor.

INS 466. Concepts and Issues in Insurance Company Management (3) I. Insurance company functions; types of insurance carriers; marketing and underwriting problems; agency/correspondent relationships; reinsurance, rate-making, financial analysis, and regulation. Prerequisite: INS 465 or permission of instructor.

INS 467. Life Insurance (3) II. Economic and social aspects of life insurance; structure of life insurance and annuity contracts; contract provisions and legal principles; calculation of premiums, reserves, surrender values, dividends; business uses. Prerequisite: INS 300 or permission of instructor.

INS 469. Group and Social Insurance (3) I. Group life and health insurance; pension plans; social insurance; integration of group, pension, and social insurance coverages. Prerequisite: INS 467 or permission of instructor.

INS 470. Risk Management (3) II. Management of corporate risk through identification, measurement, and control of loss exposures utilizing primarily non-insurance methods. Case problems and supplemental text assignments. Prerequisite: INS 465 or permission of instructor.

INS 491. Studies in Insurance and Risk Management (1-3) On demand. In-depth study of selected areas. Offered to individuals on lecture, seminar, or independent study basis depending on student needs and nature of material. May be repeated to six hours. Graded S/U.

Interpersonal and Public Communication (IPCO)

(See speech communication)

Italian (ITAL)

Entering students who had Italian in high school should take the placement test during summer preregistration or prior to enrollment in a course.

ITAL 101. Elementary Language and Culture I (4) I. Cultural approach to beginning language. Development of the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

ITAL 102. Elementary Language and Culture II (4) II. ITAL 101 Continued. Four class periods and laboratory practice each week. Prerequisite: ITAL 101 or one year of Italian in high school.

ITAL 201. Intermediate Language I (3) I. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: ITAL 102 or two years of Italian in high school.

ITAL 202. Intermediate Language II (3) II. ITAL 201 continued. Three class periods and laboratory practice each week. Prerequisite: ITAL 201 or three years of Italian in high school.

ITAL 261. The Italian Cinema (3). Modern Italian culture and literature movements and their expression in cinema; demonstrates close relationship between literature and cinema. In English.

ITAL 351. Italian Composition and Conversation I (3). Improvement of oral and written skills; emphasis on composition. Prerequisite: ITAL 202.

ITAL 352. Italian Composition and Conversation II (3). Improvement of oral and written skills in the language; emphasis on conversation. Prerequisite: ITAL 202.

ITAL 361. Introduction to Italian Literature (3). Chronological evaluation of outstanding works in Italian literature from Middle Ages to present; various movements and genres. Prerequisite: ITAL 202.

ITAL 371. Italian Civilization I (3). Political, social, intellectual, artistic life from Middle Ages through 19th century. Background for literary studies and preparation for teaching of Italian. Prerequisite: ITAL 202.

ITAL 372. Italian Civilization II (3). ITAL 371 continued; political, social intellectual, artistic life of modern Italy. Prerequisite: ITAL 202.

ITAL 488. Italian Literature: Advanced Studies (3). Study of author, literary school, genre, or selected theme. May be repeated to nine hours if topics are clearly different. Prerequisites: ITAL 361 and ITAL 362.

Japanese (JAPN)

JAPN 101. Elementary Language and Culture I (4) I. Introduction to modern spoken Japanese. Four class periods and scheduled oral practice each week.

JAPN 102. Elementary Language and Culture II (4) II. JAPN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: JAPN 101, or equivalent.

JAPN 201. Intermediate Japanese I (3) I. JAPN 101-102 continued. Conversation, writing, reading, grammar. Three class periods and scheduled oral practice each week. Prerequisite: JAPN 102, or equivalent.

JAPN 202. Intermediate Japanese II (3) II. JAPN 201 continued. Three class periods and scheduled oral practice each week. Prerequisite: JAPN 201, or equivalent.

Journalism (JOUR)

◆ **JOUR 103. Introduction to Mass Communications** (3) I, II, summer. Survey of modern journalism and mass communication; mass communication media and effects; role and influence of newspapers, magazines, radio, television, photography, and related fields of advertising and public relations. Open to non-majors.

JOUR 203. History of Journalism (3). English background, development of American mass media from colonial days to present. Historical factors affecting reporting and presentation of news in print and electronic journalism.

JOUR 300. Introduction to Journalistic Writing (3) I, II, summer. Practice in the elementary forms of newspaper, magazine, broadcast and public relations writing; emphasis on grammar, spelling, punctuation and sentence structure. Prerequisites for the 1982-83 academic year: completion of at least 30 semester hours of coursework consisting of general education requirements including ENG 112 and JOUR 103. An overall grade point average of 2.7 must have been earned in the aforementioned coursework at the time of admittance into JOUR 300, as well as a minimum grade of "C" in JOUR 103. In addition, students must have passed an English proficiency examination administered by the School of Journalism. This course is reserved for pre-journalism majors and exceptions approved by the School of Journalism. Application for this course must be made at the School of Journalism office, 103 University Hall.

JOUR 302. Copy Editing (3) I, II. Theory and practice in editing local and wire news, headline writing, picture editing, evaluating news, layout and design, video display terminal operation. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 303. Editing Specialized Publications (3) I, II, summer. Theory and practice of editing functions and techniques in producing specialized publications: magazines, newsletters, newspapers and brochures for business and non-profit organizations. Graphics skills, including electronic typesetting. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 304. Feature Writing (3) I, II. Discovering, researching, and writing the newspaper feature story and short magazine article. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 305. Photojournalism Editing (3) II. Assignment, selection, preparation and display of photographs for publication, especially in newspapers, magazines and newsletters. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 306. Introduction to Photojournalism (3) I, II. Function of pictures in newspaper, magazine and television reporting. Practice in picture taking and darkroom procedures. Lecture and laboratory. Student must provide own camera and supplies. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 307. Advanced Photojournalism (3) I. Practice in advanced problems of photography, including picture stories, and evaluation of photographs for reproduction and communication. Lecture and laboratory. Student must provide own camera and supplies. Prerequisite: "C" or better in JOUR 306.

JOUR 311. Reporting (3) I, II. Newsgathering and newswriting for all types of news stories ranging from the simple factual story to the complex, specialized story. Practice in covering assignments for publication. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 312. Reporting of Public Affairs (3) I, II. Field practice in covering governmental and community affairs with attention both to general and specialized areas. Prerequisite: "C" or better in JOUR 311 or 330.

JOUR 315. Press Management (3) II. Business problems of publishing — organization, financing, circulation, promotion. Mechanics of publication, various types of reproduction, adaptability of each, comparative costs, related problems. Open to non-majors.

JOUR 330. Radio/Television News (3) I, II. Techniques of writing, reporting and editing news for radio and television broadcasting; rewriting wire copy; introduction to ENG shooting and editing techniques; preparation and utilization of television graphics. Student must provide own tape recorder and cassettes. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing. Recommended: broadcast production course (RTVF 262 or 263) and photography course (JOUR 306, RTVF 264 or 464).

JOUR 331. Advanced Radio/Television News (3) I, II. Writing, editing and producing the radio and television newscast. Emphasis on ENG shooting and editing; field reporting; producing the newscast in a TV studio; advanced television graphics. Student must provide own videotape cassette. Prerequisite: "C" or better in JOUR 330 and RTVF 262 and 263 plus one photography course (JOUR 306 or RTVF 264 or 464).

JOUR 340. Principles of Public Relations (3) I, II, summer. Public relations problems, policies, practices applied to business and non-profit organizations; media methods of communicating, survey research and attitude change. Open to non-majors.

JOUR 380. Writing for Public Communication (3) I, II. Public relations writing skills for business and nonprofit organizations. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 402. Journalism Law and Ethics (3) I, II, summer. Legal concept of freedom of the press, constitutional guarantees, libel, privacy, copyright, broadcast regulation, contempt, obscenity, ethical problems, right to know. Open to non-majors.

JOUR 403. The Editorial (3) I. Techniques of persuasive and critical writing and the role of editorial opinion in modern mass media. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 404. Magazine Article Writing (3) I, II. Searching for story ideas, analyzing magazine markets, researching subject matter, writing and polishing stories. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 407. Color Photography (3) II. Theory and application of color processes and their limitations and advantages. Production of color transparencies and prints. Prerequisite: "C" or better in JOUR 307.

JOUR 412. Field Experience (1-3) I, II, summer. Journalism internship program required of all journalism majors. Activity may be in more than one medium, full or part time, paid or voluntary. One hour required of all majors. Prerequisites: 2.5 JOUR gradepoint average; 2.5 overall gradepoint average; junior standing. Graded S/U.

JOUR 414. Supervision of High School Publications (3) II. For teachers or prospective teachers of high school journalism or advisers of school newspapers or yearbooks. Problems of editorial supervision, business management and production.

JOUR 416. Magazine Journalism (3) I, II. Practices, problems and trends in modern magazine publishing; analysis of editorial objectives, content, audience, format, production and management. Open to non-majors.

JOUR 423. Introduction to Mass Communication Research (3) II. Mass communication from the scientific viewpoint. Research techniques in advertising, public relations, newspapers, radio and television. Application of behavioral science research methods to communication research. Open to non-majors.

JOUR 430. The Documentary (3) I, II. Research, writing and preparing news, informational and public service features, documentary and magazine-type programs; writing a program treatment and budget; production of a documentary of broadcast quality. Prerequisite: "C" or better in JOUR 331.

JOUR 431. Interpretive Reporting (3) I. Research and writing of in-depth reports, interpretive news, profiles, background stories, news analyses. Investigative reporting of current events and issues. Prerequisite: C or better in JOUR 312 or consent of instructor.

JOUR 432. Newsroom Decision Making (3) II. Newspaper editorship, goal setting, problem-analysis, readership analysis, publication conception and creation, staff management. Prerequisite: senior standing or consent of instructor.

JOUR 433. Government and the News Media (3) I. Origins and concept of freedom of information and evolution in constitutional law and judicial decisions; contemporary problems of censorship in publishing, broadcasting and film. Open to non-majors.

JOUR 435. Press and Society (3). Press as institution; its role, content, effects and responsibilities as a cultural force in society. Open to non-majors.

JOUR 440. Public Relations Techniques (3) I, II. Application of public relations theories, tools and techniques to the public relations campaign. Research, planning and execution are practiced. Prerequisites: senior status and "C" or better in JOUR 303, 340 and JOUR 380.

JOUR 470. Foreign Press Systems (3) I. Social, economic and political factors, organization and controls in the national news and informational systems of countries around the world. Open to non-majors.

JOUR 471. International Media Networks (3) II. Factors affecting flow of world news and public information; regional and international networks. Open to non-majors.

JOUR 481. Topics and Problems in Public Relations (1-3) I, II, summer. Issues and problems that confront public relations practitioners in corporate and non-profit communications programs. Prerequisite: instructor's consent.

JOUR 490. Special Problems in Journalism (1-3) I, II, summer. Research problems, practical projects or intensive reading to meet needs of student's special interests. Prerequisite: instructor's consent.

Latin (LAT)

Entering students who had Latin in high school should take the placement test during summer preregistration or prior to enrollment in a course.

LAT 101. Elementary Language and Culture I (4) I. Cultural approach to beginning language. Development of the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

LAT 102. Elementary Language and Culture II (4) II. LAT 102 continued. Four class periods and laboratory practice each week. Prerequisite: LAT 101 or one year of Latin in high school.

LAT 141. Great Greek Minds (3) I. Masterpieces of Greek literature: Homer, Sappho, Pindar, Aeschylus, Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, Plato, Aristotle. No Greek required. No credit for both LAT 141 and 485.

LAT 142. Great Roman Minds (3) II. Masterpieces of Latin literature: Lucretius, Cicero, Catullus, Vergil, Horace, Livy, Ovid, Petronius, Tacitus, Juvenal, Martial. No Latin required. No credit for both LAT 142 and 486.

LAT 145. Greek and Latin Elements in English (3). Terms and concepts derived from Greek and Latin occurring in English; designed for premedical, pre dental, prelaw, language, sciences majors.

LAT 201. Intermediate Language I (3) I. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: LAT 102 or two years of Latin in high school.

LAT 202. Intermediate Language II (3) II. LAT 201 continued. Three class periods and laboratory practice each week. Prerequisite: LAT 201 or three years of Latin in high school.

LAT 351. Latin Prose Composition I (3). Latin syntax; emphasis on word order and sentence structure. Prerequisite: LAT 202.

LAT 352. Latin Prose Composition II (3). Developing increased ability to understand structural peculiarities of classical Latin. Prerequisite: LAT 351.

LAT 361. Latin Literature I (3). Chronological survey of Latin literature into the Golden Age. Prerequisite: LAT 202.

LAT 362. Latin Literature II (3). Chronological survey of Latin literature from the Golden Age. Prerequisite: LAT 202.

LAT 470. Readings in Latin Literature (1-3) I, II. Advanced reading for students wishing to study special period or great author. Prerequisite: consent of chair of department and instructor.

LAT 480. Classical Mythology (3). Study in English of Greek and Roman myths; historical meaning and influence on life, literature, and art. No Latin required.

LAT 481. Roman Life (3). Study in English of daily life and customs in Rome as described in literature and attested by history, art, archeology. No Latin required.

LAT 485. Greek Literature in English (3) I. Thought and action of ancient Greeks as seen mainly through their literary works. For majors and minors in Latin and other languages and students wanting to fulfill humanities requirement; no Greek required. No credit for both LAT 141 and 485.

LAT 486. Latin Literature in English (3) II. Thought and action of ancient Romans as seen mainly through their literary works. Intended for majors or minors in Latin and other languages and for students wanting to fulfill humanities requirement; no Latin required. No credit for both LAT 142 and 486.

Latin-American Studies (LAS)

LAS 401. Latin-American Studies Senior Seminar (3) II. For seniors majoring in Latin American studies and other interested students. Examination of literature, problems of research and writing, discussion of methods. Required of Latin-American studies major.

Legal Studies (LEGS)

LEGS 200. Perspectives of American Law (4) I, II. Thematic case study of family law, property, privacy, torts, criminal law, and other areas which explain social forces that give substance to American law, analysis and reasoning behind court decisions. Prerequisite: 30 hours.

◆ **LEGS 301. General Business Law (4) I, II, summer.** Historical, political, economic background to business law. Origin, development, fundamental of contracts and sales. Economic role of contracts in facilitating goods and services. Prerequisite: junior standing.

LEGS 302. General Business Law (4) II, summer. LEGS 301 continued. Law of sales, common carrier, partnerships and corporations, and agency law. Prerequisite: LEGS 301.

LEGS 305. Comparative Legal Philosophy (4) I. Legal philosophy and comparative law using legal systems of Western, Communist, and developing countries as models; treatment of commercial obligations and constitutional rights within different legal systems.

LEGS 310. Law and the Citizen (4) I. Major social issues of today and how judicial system shapes social policy and reform; consumer protection and other annually selected social issues being adjudicated in courts: discrimination and reverse discrimination, capital punishment, reform of legal system, problems in criminal justice system, freedom of speech and assembly, obscenity and pornography, etc. Prerequisite: junior standing or permission of instructor.

LEGS 340. Administration of Criminal Justice (4) II. Legal and sociological perspectives in which police, criminal courts, juries, judges, and correction systems operate. When possible, qualified criminologists assist in teaching.

LEGS 406. International Legal Transactions (4) II. Legal problems faced by individual and corporate business persons when operating within international framework. Methods of control of multinational corporate entities, effect of doing business as national or foreign firm, and act of state doctrine relating to expropriation of assets of foreign firm.

LEGS 413. Trusts and Estates (4) I. Execution, administration, revocation of wills and trusts, guardianships, life insurance estates; insurance law relating to estates, their protection, and liability; role of wills and trusts in distribution of wealth. Prerequisite: LEGS 301.

LEGS 414. Liability Law (4) II. History and development of modern concepts in areas of personality, privacy, product and service liabilities; legal problems in advertising, responsibility to work force, and ecology.

LEGS 415. Realty Law (4) II. Creation, acquisition, transfer of realty; deeds and mortgages as security devices and their economic implications; landlord-tenant relations and economic role of leasehold interests.

LEGS 417. Law of Business Associations (4) II. Establishing relation of agency, partnership, and corporation and legal incident thereto; fundamentals of Uniform Partnership Act, Model Corporation Act; economic implications as business entities. Prerequisite: LEGS 301.

LEGS 419. Private Labor Law (4) I. Federal legislation in defining roles of labor organizations and management as they interrelate in private industry; National Labor Relations, as amended, and 1964 Civil Rights Act, as amended, prohibiting discrimination in employment.

LEGS 420. Commercial Law (4) II, summer. Legal environment created by Uniform Commercial Code in transactions involving personal property sales, marketing, advertising, and negotiable instruments; their economic role in facilitating goods and services. Prerequisite: LEGS 301.

LEGS 421. Administrative Law (4) II. Regulation of business and policy implications for public; antitrust, trade practices, equal opportunity employment, environmental restraints, public utilities.

LEGS 425. Health Care Law (4) I. Public-private constraints in foundation health agencies; experimentation and risk assumption; agency and independent contract liability; reasonable standards of care doctrines; governmental regulations.

LEGS 429. Employment Discrimination and Affirmative Action Law (3) II. Federal laws, Ohio laws, Federal Executive Orders #11246, federal regulations interpreting these laws and orders that govern employment decisions in hiring, firing, testing, promotion, demotion, transfers, etc.

LEGS 431. Environmental Law (4) II. History and development of modern concepts in environmental law; air, water, land, noise; problems in legal alternatives and tax incentives.

LEGS 440. Consumer Law (4). Legal protections available to the consumer; concentrates on federal legislative response to problems and consumer transactions with special focus on relationship between consumer expectations and legal protection of those expectations. Prerequisite: LEGS 301.

LEGS 491. Studies in Business Law (1-4) II. In-depth study of selected areas. Offered to individual student on lecture basis or as seminar depending on student needs and nature of material. May be repeated to eight hours.

LEGS 495. Readings for Honors in Business Law (1-4) I, II, summer. For student in business administration who wishes to pursue supervised independent program of reading and study. Prerequisite: 3.0 accumulative GPA, consent of department.

Library and Educational Media (LEM)

LEM 203. Introduction to Librarianship (3) I, II, summer. Profession of librarian/information/media specialist; types of library/information/media centers, jobs performed, professional literature and organizations, history of libraries and materials. Lecture; discussion/questioning; role-playing; practicum. C/F hrs.: 16

LEM 301. Basic Educational Media (2) I, II, summer. Selection, operation and utilization of common classroom educational media. Lecture; discussion/questioning; problem solving; laboratory; practice/drill. Prerequisite: to follow EDFI 302. C/F hrs.: 16

LEM 395. Workshop in Educational Media (1-2) On demand. Study, readings and development of materials to meet the needs of practitioners. Topics vary from offering to offering. May be repeated with consent of adviser. C/F hrs.: varies.

LEM 403. Reference Services and Materials (3) II. Basic sources of information and use in providing library/information/media services. Lecture; discussion/questioning; viewing/listening/answering; problem solving. C/F hrs.: 25

LEM 404. History of Books and Libraries (2) On Demand. Development of books and libraries from earliest times to the present with emphasis on their roles in the preservation and communication of information. Lecture; discussion/questioning; viewing/listening/answering. C/F hrs.: 4

LEM 405. Government Publications (3) I. Nature, use, acquisition, and organization of printed materials issued by federal, state, and local governments and international agencies. Lecture; discussion/questioning; practice/drill; laboratory. Prerequisite: LEM 403 or consent of instructor. C/F hrs.: 17

LEM 407. Selection of Materials (3) II. Principles of selection and acquisition of print and nonprint materials. Lecture; discussion/questioning; practice/drill; practicum; role-playing; problem solving. C/F hrs.: 40

LEM 408. Classification and Cataloging (3) I. Tools and basic procedures of technical processing and organizing of library/media/information materials. Lecture; discussion/questioning; practice/drill; problem solving; laboratory; practicum. C/F hrs.: 40

LEM 411. Materials for Secondary School Media Centers (3) I. Print and nonprint materials and program activities for secondary school media centers. Special needs of adolescents including gifted and retarded. Lecture; discussion/questioning; viewing/listening/answering; problem solving. Prerequisite: 9 hours of LEM courses or consent of instructor. C/F hrs.: 20

LEM 428. Advanced Utilization of Educational Media (3) I. Audiovisual materials to motivate, persuade, instruct. Selection, production, use, and evaluation. Lecture; discussion/questioning; viewing/listening/answering; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 16

LEM 430. Preparation of Instructional Materials (3) II. Planning, designing, and producing instructional materials in terms of stated objectives. Laboratory; practicum; discussion/questioning; problem solving. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 22

LEM 431. Visual Communication in Instruction (3) On demand. Role of visual stimuli in teaching/learning environments. Emphasis on instructional drawing. Lecture; practice/drill; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 40

LEM 433. Classroom Television (3) II. Television as an integral part of the instructional process. Includes equipment operation and selection and basic production techniques. Lecture; practice/drill; viewing/listening/answering; problem solving; laboratory. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 20

LEM 434. Individualizing Instruction with Educational Media (3) I. The application of educational technology (equipment, materials, and instructional design techniques) to the conceptual and operational aspects of individualized instruction. Lecture; viewing/listening/answering; problem solving; independent learning/self-instruction. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 20

LEM 438. Selection, Maintenance and Repair of Media Equipment (3) On demand. The role of the teacher and media specialist in selection, maintenance and repair of classroom media equipment at building level. Lecture; practice/drill; laboratory; independent learning/self-instruction; problem solving; discovery. Prerequisite: LEM 428 or consent of instructor. C/F hrs.: 20

LEM 441. Storytelling (3) I, II. Technique and practice of storytelling in libraries, classrooms, etc. Selection of traditional and modern literature to tell and read aloud. Lecture; practice/drill; viewing/listening/answering; role playing. Prerequisite: ENG 342 or consent of instructor. C/F hrs.: 8

LEM 450. Media Center in the School (3) I. Organization and administration of school media centers. Lecture; discussion/questioning; practice/drill; problem solving; practicum; role-playing. Prerequisite: just prior to student teaching. C/F hrs.: 20

LEM 455. Instructional Media in Industry, Business and Government (3) I. Selection and utilization of instructional media in non-school settings. Not available for students with credit for LEM 428. Lecture; discussion/questioning; viewing/listening/answering; problem solving; laboratory. Prerequisite: consent of instructor. C/F hrs.: 16

LEM 490. Problems in Library and Educational Media (1-3) I, II, summer. Independent study of selected topics. May be repeated to six hours. Prerequisite: consent of instructor. C/F hrs.: varies

LEM 491. Field Work (2) I, II, summer. Supervised field work in library, media center, or information service approved by department. May be repeated to 4 hours. Practicum. Prerequisite: consent of instructor. C/F hrs.: varies. Graded S/U.

LEM 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

LEM 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

Linguistics (LING)

LING 310. Introduction to Linguistics (3) II. Nature of languages and human communication; principles and procedures for analyzing and describing languages; language change and variation. Prerequisite: sophomore standing.

LING 490. Special Problems in Linguistics (2-3) On demand. Theories and applications of linguistics studies or problems in languages, literatures, psychology, speech, and other related fields. Prerequisite: LING 310.

Management (MGMT)

◆ **MGMT 300. Introduction to Production and Operations Management** (3) I, II, summer. Operations of firm; design of production systems; operation, coordination, and control of production activity; major analytical tools for management. Prerequisite: STAT 212 or equivalent.

◆ **MGMT 305. Principles of Organization and Management** (3) I, II, summer. Fundamentals of organization theory; objectives, policies, decision-making, authority, management development, leadership, communication, motivation, and effective human relations as related to management principles. Not open to business majors.

MGMT 330. Procurement (3) I, II, summer. Management of procurement; process of establishing need, source selection, pricing, specifications, negotiation and bidding, quality assurance, value analysis, make or buy, procedures, legal considerations, and computer systems. Related to industrial, governmental, and institutional utilization. Prerequisite: STAT 212 or equivalent.

MGMT 360. Organizational Theory and Behavior (3) I, II, summer. Micro-relationships in organizations; historical perspective, changing nature of organizations, and individual and overall group behavior. Prerequisite: STAT 212.

MGMT 361. Personnel Administration (3) I, II, summer. Design, organization, and operation of personnel function. Planning manpower needs, developing human resources, appraising performance, developing compensation systems, and compliance with applicable government regulations such as EEO, OSHA, and ERISA. Not open to human resource management majors or to students with credit for MGMT 450 or MGMT 451. Prerequisite: MGMT 305 or MGMT 360.

MGMT 430. Materials Management (3) I, II. Conceptual and analytical framework for material management problems. Development and evaluation in depth of materials management system components; facility location, transportation, inventory requirements, materials handling, order processing. Prerequisite: MGMT 300 or permission of instructor.

MGMT 439. Procurement and Materials Management Problems (3) II. Capstone course integrating principles from other required courses: lectures, case discussions, simulations, and research projects. Prerequisite: MGMT 330 or 430.

MGMT 441. Production Process Design (3) I, II. Effective design of production transformation process. Product decision, process selection, and capacity-related issues. Macro-processing modes and attendant problem areas such as layout of production facilities, project management, and line balancing; microprocessing aspects such as work design and measurement. Quality control and safety. Prerequisite: MGMT 300.

MGMT 442. Inventory Systems Planning (3) I, II. Forecasting methods for output requirements. Traditional theories and techniques of inventory control. Current inventory methodology such as material requirements planning; broad range of inventory control problems. Prerequisite: MGMT 300.

MGMT 445. Production Planning and Scheduling (3) I, II. Short range production scheduling such as job/flow shop scheduling and maintenance scheduling; intermediate range scheduling such as aggregate planning and master scheduling; long term scheduling such as capacity control. Prerequisite: MGMT 300.

MGMT 449. Problems in Production and Operations Management (3) II. Integrates all principles, theories, and techniques gained from previous courses into broad perspective. Case study, simulation, and team projects/presentations. Prerequisites: any two of MGMT 441, 442 and 445.

MGMT 450. Human Resource Management I (3) I. Concepts and skills involved in staffing, appraisal, placement, training, development, and compliance with applicable governmental regulations including EEO. Prerequisite: MGMT 360.

MGMT 451. Human Resource Management II (3) II. Concepts and skills required in job evaluation, wage and salary administration, health and safety, and compliance with applicable governmental regulations, including OSHA and ERISA. Prerequisite: MGMT 360.

MGMT 461. Advanced Organization Theory and Behavior I (3) I, summer. Individual and interpersonal variables which influence organizational behavior, motivation theory, personality theory, interpersonal processes, and helping relationship. Prerequisite: MGMT 360.

MGMT 463. Advanced Theory and Behavior II (3) I, II, summer. Group and organizational variables which influence organizational behavior, group development and behavior, organizational design, and organizational processes. Prerequisite: MGMT 360.

MGMT 465. Organization Development Theory and Technology (3) I. Theory and technology of organization development; history, philosophy, process and major technology of organization development; the consulting process and the diagnostic methodology used in organization development. Prerequisite: MGMT 360.

MGMT 468. Organization Development Field Experience (3) II. An integrative and applied course designed to allow students to develop and apply skills in diagnosing organizations, designing interventions and carrying out change in organizations. Prerequisite: MGMT 465.

MGMT 469. Internship (1-3) I, summer. Experience in approved business position. Student participates in seminar to formally evaluate work experience. Must be arranged in advance and approved by coordinator. Work experience must be completed within one year of acceptance into program. Not open to students with credit from any similar program in College of Business Administration. Graded S/U.

MGMT 491. Studies in Management (1-3) On demand. Selected areas not covered by existing courses but which are developing rapidly as important parts of discipline. Offered to individual on lecture basis or in seminar, depending on student need and course content. May be repeated to six hours.

MGMT 495. Readings for Honors in Management (1-3) I, II, summer. For superior student who desires individual reading program to broaden knowledge of management literature on semi-independent basis. Prerequisite: academic standing in upper 20 percent of class.

Management Information Systems (MIS)

◆ **MIS 200. Introduction to Management Information Systems** (3) I, II, summer. Principles of computer systems, role of information systems in organizations; introduction to information systems theory. Computer programming in BASIC using microcomputers. Prerequisite: completion of math requirements.

MIS 360. Computer Based Systems (3) I. Introduction to the concept of a system and to system design process; emphasis on application to the computerized information system. Prerequisite: MIS 200.

MIS 371. Systems Analysis (3) II. Concepts and methods of systems analysis; design of a computer based systems project; development and management of a systems department. Prerequisites: CS 260 and 360, MIS 200, MGMT 300 or concurrent registration in MGMT 300.

MIS 472. Contemporary Topics in MIS (3) I. Topics shift as business utilization of computers evolves. See instructor for current content. Prerequisite: MIS 371.

MIS 474. Cases in Management Information Systems (3) II. Information systems in an action case approach. Prerequisite: MIS 472.

MIS 491. Studies in Management Information Systems (1-3) On demand. Selected areas or contemporary problems. May be repeated. May be offered individually as well as in classes depending on student needs and nature of material. Prerequisite: approval of department.

Manufacturing Technology (MFG)

(See technology)

Marketing (MKT)

◆ **MKT 300. Principles of Marketing Management** (3) I, II, summer. Managerial decision making in marketing; topics include institutional framework of retail and industrial markets; buyer behavior; forecasting demand; product, promotion, pricing and distribution strategies; planning and control systems. Prerequisites: any ECON course and any ACCT course and MATH 127 or 124 or a higher level MATH course.

MKT 400. Topics in Marketing (1-3) I, II. Selected areas not covered by existing courses but which are developing as important part of marketing. Offered on lecture basis or in seminar, depending on student needs and course content. May be repeated to 6 hours. Prerequisites: MKT 300 and permission of department chair.

MKT 402. Buyer Behavior (3) I, II, summer. Pertinent theoretical and empirical findings about buying (consumer, industrial and institutional) behavior; topics include attitude formation and change; motivation; personality; social/cultural forces; and concepts underlying strategies of market segmentation and positioning. Prerequisite: MKT 300.

MKT 410. Principles of Advertising and Promotion (3) I, II, summer. Theory and decision making in advertising and promotion. Topics relate to the promotional mix from a manager's point of view, including decisions about promotional campaign design, budgeting, message and media selection, and measurement of effectiveness. Prerequisite: MKT 300.

MKT 411. Creative Strategies and Tactics in Advertising (3) I, II. The creative process applied to advertising and promotion. Theory and practice of creative aspects of advertising strategy development and tactical implementation: copy, layout, and production. Prerequisites: MKT 300 and MKT 410.

MKT 412. Managerial Problems in Advertising (3) I, II. Case studies evaluating opportunities for effective advertising program development and implementation. Experience will be gained in making actual decisions regarding: the setting of objectives; campaign design; budget allocation; message and media selection. Prerequisites: MKT 300 and MKT 410.

MKT 420. Marketing Research (3) I, II, summer. Marketing research as a source of information relevant to solving marketing problems. Technical aspects of research are related to management's ability to judge soundness of research proposals and evaluate research findings. Prerequisites: STAT 212 and MKT 300.

MKT 421. Advanced Marketing Research (3) II. Application of research principles to solve marketing problems. Research projects are designed, implemented and completed. Topics include: sampling; sample design; questionnaire construction; data collection, tabulation and analysis. Prerequisites: STAT 212 and MKT 300 and MKT 420.

MKT 430. Retailing (3) I, II, summer. Evolution, organization, and operation of retailing. Prerequisite: MKT 300.

MKT 436. Retail Merchandising (3) I, II. Merchandising functions: buying, selling. Merchandise planning, budgeting, procuring, pricing; sales promotion, inventory evaluation, cost analysis, and control. Prerequisites: MKT 300 and MKT 410 and MKT 430.

MKT 442. Selling and Sales Management (3) I, II, summer. Theory and principles of selling, role playing. Theory and practices of sales force administration for manufacturing and wholesaling enterprises. Topics include: recruiting; training; compensation; sales force size and design; performance appraisal. Prerequisites: MKT 300 and MKT 402.

MKT 460. Strategic Marketing (3) I, II. Strategic planning is explored in terms of marketing strategy development per se and its relationship to corporate-wide planning. Topics include: product/market planning strategies; and strategy-related tools and models. Prerequisites: MKT 300 and MKT 420.

MKT 489. Marketing Internship (1-2) I. Work in approved business position; credit determined by quality and extent of work experience. Not open to freshmen and sophomores, or to students with credit for ACCT 489 or BA 489 or MGMT 489. Prerequisites: MKT 300 and permission of department chair. Graded S/U

MKT 495. Reading for Honors in Marketing (1-3) I, II. For superior student who wishes individual reading program or independent research experience with guidance from an appropriate advisor. Prerequisites: academic standing in upper 20 percent of class and permission of instructor.

Mathematics and Statistics (MATH)

MATH 095. Intermediate Algebra (5) I, II, summer. Rational and real numbers; polynomials, factoring, and rational algebraic operations; basic geometric concepts; linear equations, quadratic equations, systems of linear equations; graphing; inequalities and sets, integer exponents and radical expressions. Credit cannot be applied towards any baccalaureate degree program. Under ordinary circumstances, students with two years of high school algebra would not need this course. Additional fee: \$20. Graded S/U.

MATH 096. Intermediate Algebra (3) I, II, summer. Polynomials, factoring, rational algebraic operations; linear equations, quadratic equations, systems of linear equations; graphing; inequalities and sets; integer exponents and radical expressions. Credit cannot be applied towards any baccalaureate degree program. Under ordinary circumstances, students with two years of high school algebra would not need this course. Ordinarily not taken by students who have taken MATH 095. Additional fee: \$20. Graded S/U.

◆ **MATH 115. Introduction to Statistics** (3) I, II, summer. Description of data, binomial and normal distributions, estimation and testing of hypotheses for means and proportions. Prerequisite: three years of high school mathematics and satisfactory placement exam score or satisfactory completion of MATH 095 or 096.

MATH 116. Introduction to Statistics II (3) II. MATH 115 continued. Nonparametric methods; linear regression and correlation; analysis of variance. Prerequisite: MATH 115 or consent of instructor.

◆ **MATH 121. Topics in Modern Mathematics** (3) I, II. Language of sets, introductory logic, number systems, other topics. Not intended for improvement of algebra skills. Students needing additional preparation in algebra should take MATH 095 or MATH 096. Not open to students with credit for any college mathematics course. Prerequisite: one year of high school algebra.

- ◆ **MATH 124. Basic Calculus I** (4) I, II, summer. Polynomials, factoring, radicals and rational exponents; linear and quadratic equations and inequalities; graphs; differential calculus for rational functions with applications. Not intended for students in physical sciences. Not open to students with grade of C or better in MATH 131. MATH 124-125 is a concept-oriented calculus and matrix algebra sequence for students in social sciences, business and other areas who are not eligible for MATH 131, but who need preparation for mathematically oriented courses in their fields. Prerequisite: satisfactory placement exam score; or satisfactory completion of MATH 095 or 096.
- ◆ **MATH 125. Basic Calculus II** (4) I, II, summer. Integral calculus, exponential and logarithm functions, partial derivatives, and matrix algebra. Prerequisite: C or higher in MATH 124.
- MATH 127. Elementary Functions** (3) I, II, summer. Polynomials, factoring, radicals, rational exponents; linear and quadratic equations and inequalities, applications; polynomial, exponential and logarithmic functions and their graphs; systems of equations; theory of equations. Not to be taken if credit for MATH 128 or 130 has been received. Prerequisite: grade of S in MATH 095 or MATH 096, or two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- MATH 128. Precalculus Mathematics** (5) I, II, summer. Polynomials, factoring, radicals, rational exponents; linear and quadratic equations and inequalities, applications; polynomial, exponential, logarithmic and trigonometric functions and their graphs, trigonometric equations; systems of equations; complex numbers; theory of equations. Not to be taken if credit for either MATH 127, 129 or 130 has been received. Prerequisite: grade of S in MATH 095 or 096, or two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- MATH 129. Trigonometry** (2) I, II. Trigonometric functions, graphs, identities, equations, inverse functions, solution of triangles, complex numbers. Intended for students who have good preparation in algebra and geometry but lack knowledge of trigonometry. Not to be taken if credit for MATH 128 or 130 has been received. Prerequisite: C or higher in MATH 127 or two years of high school algebra, one year of high school geometry, and satisfactory placement exam score.
- ◆ **MATH 130. Precalculus Mathematics** (3) I, II, summer. Theory of equations, coordinate geometry, exponential, logarithmic, and trigonometric functions, applications. Overlaps with content of MATH 128 and 129. Not to be taken if credit for MATH 128 or 129 has been received. Prerequisites: two years of high school algebra, one year of high school geometry, and a satisfactory placement exam score.
- ◆ **MATH 131. Calculus and Analytic Geometry I** (5) I, II, summer. Differential and integral calculus including applications of the logarithmic and exponential functions. The MATH 131-232-233 sequence is a traditional calculus course for well-prepared students and is prerequisite for all advanced mathematics and statistics courses. Prerequisites: (1) two years of high school algebra, one year of geometry, one-half year of trigonometry, ACT math score of 24 or higher, and satisfactory score on departmental placement test; or (2) satisfactory completion of MATH 128, 129, or 130.
- ◆ **MATH 222. Discrete Mathematics** (3) I, II. Logic, set theory, elementary combinatorics, finite probability, vectors, matrices, and applications. Prerequisite: grade of C or higher in MATH 131 or 125.
- ◆ **MATH 226. Mathematics of Finance** (3) II. Simple and compound interest, ordinary annuities, amortization, sinking funds, bonds, life annuities, life insurance. Prerequisite: grade of C or higher in MATH 125 or 131.
- ◆ **MATH 232. Calculus and Analytic Geometry II** (5) I, II, summer. MATH 131 continued. Techniques of integration, conic sections, analytic geometry, differentiation and integration of functions of several variables. Prerequisite: Grade of C or higher in MATH 131.
- ◆ **MATH 233. Calculus and Analytic Geometry III** (3) I, II. MATH 232 continued. Vector analysis, Taylor's theorem, L'Hospital's rule, improper integrals, infinite series. Topics from differential equations. Prerequisite: grade of C or higher in MATH 232.
- ◆ **MATH 241. Mathematics for Elementary Teachers I** (3) I, II, summer. Numeration systems, set theoretic development of the whole number system, systems of integers and rationals, number theory. Open only to elementary and special education majors. Prerequisite: satisfactory placement exam score.
- ◆ **MATH 242. Mathematics for Elementary Teachers II** (3) I, II, summer. MATH 241 continued. The real number systems, informal geometry, basic probability. Open only to elementary and special education majors. Prerequisite: grade of C or higher in MATH 241.
- MATH 243. Mathematics for Elementary Teachers** (4) I. A fast-paced treatment of MATH 241 and 242 for well-prepared, mathematically inclined students only. Open only to elementary and special education majors. Prerequisite: placement in MATH 243 by placement exam and permission of instructor. Not open to students who have taken MATH 241 or 242.
- ◆ **MATH 247. Fundamentals of Statistical Inference** (3). Discrete probability models, random variables and distribution functions, sampling theory, problems in statistical inference. Prerequisite: grade of C or higher in MATH 125 or 131.
- ◆ **MATH 295. Honors Course in Mathematics** (1). Series of lectures by various department members surveying major areas of mathematics. To be taken after completion of MATH 232. Prerequisite: invitation of department.
- MATH 299. Semester Transition Course** (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.
- MATH 311. History of Mathematics** (3). History through calculus. Prerequisite or corequisite: MATH 332.
- MATH 313. Elementary Mathematical Logic** (3) I. Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for CS 313.
- ◆ **MATH 332. Elementary Linear Algebra** (3) I, II. Systems of linear equations, vectors, matrices, determinants, linear transformations, vector spaces, and applications. Techniques and some proofs. Prerequisite: MATH 232.
- ◆ **MATH 337. Differential Equations** (3). Equations of first, second, and higher order; linear equations with constant coefficients; series solutions; Laplace transform; numerical methods and applications. Prerequisites: MATH 233 and MATH 332.
- MATH 339. Fundamental Concepts of Modern Algebra** (3). Introduction to modern algebra. Elementary properties of groups, rings, integral domains, and fields. Divisibility properties of integers, construction of rational numbers. Prerequisite: MATH 332 or consent of instructor.
- MATH 350. Numerical Calculus** (3). Basic numerical algorithms for computer use, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems. Not open to student with credit for CS 350. Prerequisites: CS 101, MATH 233, and MATH 332.
- ◆ **MATH 395. Honors Course in Mathematics** (1). A choice of two experiences: (1) a problem solving seminar, or (2) use of the mathematics library to conduct a search for articles related to a selected topic. Prerequisite: invitation of department.
- MATH 400. Topics in Mathematics** (3). Selected topics in mathematics not included in existing courses. May be taken twice for credit. Prerequisite: consent of instructor.
- MATH 401. Number Theory** (3). Divisibility, prime numbers, congruences, prime modulus, quadratic residues, quadratic reciprocity law, numerical functions, factorization of integers, elementary diophantine equations, and applications. Prerequisite: MATH 339.
- MATH 402. Modern Geometry** (3) I. Axiomatic development of neutral and Euclidean geometry. Introduction to non-Euclidean geometry. Prerequisite: MATH 339.
- MATH 403. Modern Algebra I** (3). Topics from groups, normal subgroups, homomorphisms, theorems of Lagrange and Cayley, rings, ideals, Euclidean domains, abstract vector spaces. Prerequisite: MATH 339.
- MATH 404. Modern Algebra II** (3). Continuation of topics from MATH 403. Prerequisite: MATH 403.
- MATH 405. Projective Geometry** (3). Algebraic techniques to study projective properties of geometric configurations and plane curves, principle of duality, projective transformations, cross ratios, intersection theory, and classical theorems. Prerequisite: MATH 339.
- MATH 414. Advanced Mathematics for Elementary Teachers** (5) II. History of elementary mathematics, infinite sets, non-Euclidean geometry, and other selected topics. Prerequisite: grade of C or better in MATH 242 or 243.
- MATH 421. Foundations of Mathematics I** (3) II. Logic; set theory (including informal discussion of infinite sets and cardinals); axiomatic method (including models, consistency, and independence). Prerequisite: MATH 339 or consent of instructor.
- MATH 422. Foundations of Mathematics II** (3). Topics in the foundations of mathematics. Prerequisite: MATH 421, 313, or consent of instructor.
- ◆ **MATH 495. Honors Course in Mathematics** (1). Upon invitation from faculty, student may undertake honors program in mathematics. Open to majors whose performance in analytic geometry and calculus has indicated an interest in mathematics and probable success. Graduation with honors in mathematics requires completion of course of study planned by the student and the department honors committee, and approval by department. One such program would be outstanding performance in MATH 295 and MATH 395 and completion of MATH 495. Participation is voluntary and may be discontinued without prejudice.

MATH 426. Mathematics of Life Contingencies (3) II. The mathematics of pensions and life annuities, single life functions, measurement of mortality, net level premium reserves, multi-life functions, joint life probabilities, last survivor and general multi-life functions. Prerequisite: MATH 226 or consent of instructor.

MATH 430. Advanced Calculus (3). Infinite sequences and series, uniform convergence, improper integrals, partial derivatives, Jacobians, change of variables, and optimization. Prerequisite: MATH 233.

MATH 432. Linear Algebra with Applications (3). Matrices and vector spaces, eigenvalues, orthogonal matrices, positive definite matrices, quadratic forms. Possible applications: differential equations, Markov chains, least squares. Prerequisite: MATH 332 or consent of instructor.

MATH 434. Vector Calculus (3). Differential calculus of vector functions, inverse and implicit function theorems, line and surface integrals, theorems of Green, Gauss, and Stokes. Prerequisites: MATH 233 and 332.

MATH 437. Qualitative Theory of Differential Equations (3). Existence theorems for linear and nonlinear equations, systems of first order linear equations, nonlinear equations and stability, applications. Prerequisite: MATH 337.

MATH 439. Boundary Value Problems of Differential Equations (3). Boundary value problems, Sturm-Liouville theory, singular boundary conditions, Fourier series, partial differential equations of mathematical physics, e.g., heat, wave, and Laplace's equation in one and several dimensions. Applications. Prerequisite: MATH 337.

MATH 441. Probability and Statistics I (4). Probability spaces, discrete and continuous random variables and their distributions, expected value, and Central Limit Theorem, sampling distributions, estimation of parameters, and tests of hypotheses. Prerequisite or corequisite: MATH 233.

MATH 442. Probability and Statistics II (4). MATH 441 continued. Maximum likelihood estimation, Neyman-Pearson lemma, most powerful tests, class data, regression analysis, nonparametric statistics. Prerequisites: MATH 441 and 332.

MATH 445. Applied Probability (3). Probability models for applications, finite Markov chains, queueing systems, Poisson process, applications to genetics, diffusion, computer systems. Prerequisites: MATH 332 and 441.

MATH 451. Numerical Analysis (3) I. Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation, zeros of polynomial and transcendental functions, numerical differentiation and integration, solution of linear systems by direct and by iterative methods, matrix inversion, selected algorithms programmed for solution on computer. Prerequisites: MATH 332 and programming experience. Not open to students with credit for CS 451.

MATH 452. Numerical Analysis (3) II. Computation of eigenvalues and eigenvectors of matrices, least squares and approximation, numerical solution of initial value and boundary value problems in ordinary differential equations. Topics from: spline, trigonometric, and Chebyshev approximation, numerical solution of partial differential equations, and optimization techniques. Prerequisites: MATH 337 and programming experience. Not open to students with credit for CS 452.

MATH 461. Introduction to Complex Analysis (3). Complex numbers, complex valued functions, differentiation of complex valued functions, analytic functions, power series, integration, contour integrals, residues and poles, conformal mapping, applications. Prerequisite: MATH 334, 465, consent of instructor.

MATH 465. Introduction to Real Analysis (3) I. Sets, functions, and properties of real numbers, numerical sequences and series, limits, continuity, uniform continuity for real functions, differentiation and Riemann integration. Prerequisite: MATH 233.

MATH 470. Readings in Mathematics (1-3). Independent study of a topic of particular interest to an advanced student under the direction of a faculty member. May be repeated. Prerequisite: consent of instructor and chair of department.

MATH 489. Internship (1-3). Internship for majors in mathematics or statistics in the cooperative education program. Written report required. May be repeated with permission. Does not apply towards major or minor. Prerequisite: permission of department. Graded S/U.

*****MATH 495. Honors Course in Mathematics (1).** Directed study in some field of mathematics; preparation and presentation of research topic. To be taken concurrently with two or more hours of MATH 470. Prerequisite: invitation of department.

Medical Record Administration (MRA)

MRA 101. Introduction to Health Professions (1) I, II. Survey of health professions and function of health care personnel within these professions. Graded S/U.

MRA 300. Topics in Medical Record Administration (1-3) On demand. Courses which are being considered for offering on a regular basis. May be repeated.

MRA 301. Medical Terminology (2) I, II. Vocabulary and terms used by medical personnel: prefixes, suffixes, word roots and their combining forms, usage and spelling; specialized terms by body systems. Prerequisite: sophomore standing.

MRA 401. Medical Record Science V (3) I. History and development of patient information systems. Analysis of medical record development, content, format, quantitative and qualitative evaluation; health care information retention, storage, and retrieval systems. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

MRA 402. Medical Record Science VI (3) I. Review of disease and operation classification systems and use of manual and computerized medical information indexing and registry systems. Statistical reporting in the medical record department. Computation, presentation and analysis of related statistics. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

MRA 403. Medical Record Science VII (2) II. Legal aspects of medical records. Analysis of medical record as legal document; medical and legal requirements of health care delivery system; and confidentiality and release of medical information. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

MRA 404. Medical Record Science VIII (3) II. Planning, staffing, actuating and controlling a medical care information system by use of systems analysis techniques. Application of principles through management processes. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

MRA 410. Seminar - Trends in Medical Record Administration (1) II. Discussion of topics, trends, constraints affecting the profession. Supplemented by directed practice experience, articles, and case studies. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

MRA 489. Directed Practicum (3) II. On-site management experience in a health care facility medical record department under the direction of a medical record administrator with emphasis on management of health information systems and personnel. Prerequisites: enrollment in MRA program and senior standing (or permission of instructor).

Medical Record Technology (MRT)

†MRT 100. Medical Record Science I (4) I. Historical development of medicine, hospitals, and medical record profession. Basic functions of medical record department; filing, numbering systems; retention; forms design and control; standards for, development of medical records; analysis of record deficiencies; records in ECF's. Four hour lecture and assigned lab. Prerequisite: permission of instructor.

†MRT 101. Medical Terminology (3) I. Vocabulary and terms used by medical personnel, prefixes, suffixes, word roots, and their combining forms, usage, spelling, and pronunciation; specialized terms within body systems and medical specialties. Three hour lecture.

†MRT 102. Medical Transcription (3) II. Skill in use of transcription equipment and expansion of medical terminology and typing accuracy and speed. Practice in typing medical, operative, clinical summary, laboratory, history, physical, and admission reports. One hour lecture and five hours lab. Prerequisites: MRT 101 and typing proficiency as indicated with a grade of "C" or better in BUSF 111 or equivalency.

†MRT 112. Medical Record Science II (3) II. Coding, classifying, and indexing data according to ICD-9-CM, registers and indexes generated and requirements for their maintenance. Abstraction of medical data from patient records and introduction to computerization. Three hours lecture and one hour lab. Prerequisite

†MRT 201. Medical Record Directed Practice (2) I, II. Application of medical record theory to actual practice through a supervised learning experience in an assigned clinical setting under the instruction of a professional medical record practitioner. 24 hours lab. No remuneration; see policy on transportation and uniforms. May be repeated up to 4 credits. Prerequisite: permission of instructor.

†MRT 204. Pathophysiology (4) II. Disordered human functions and systems; language, causes, and types of diseases; diseases of the body systems, each described in terms of its etiology, pathology, symptoms, and treatment. Four hours lecture. Prerequisites: BIOL 104, 331, and 332.

†MRT 211. **Medical Record Science III** (4) I. Health, hospital, statistics; medical care evaluation studies and utilization review with PSRO and JCAH standards; hospital libraries, tumor registries, and admitting procedures; principles and roles in management; problem oriented medical record; and current topics in medical records. Four hours lecture and assigned lab. Prerequisite: MRT 112.

†MRT 212. **Medical Record Science IV** (1) II. The medical record as legal document; confidential communication; consents and authorizations for release of medical information. Three hours lecture, five weeks. Will immediately precede MRT 201. Prerequisite: MRT 211.

†MRT 290. **Topics in Medical Record Technology** (1-3) I, II. Medical record technology projects, workshops, and seminars dealing with current topics not covered in existing courses. Prerequisite: permission of instructor.

†MRT 291. **Field Experience** (3) I, II, summer. Fifteen weeks of paid field work in a medical record department under supervision of Registered Record Administrator or Accredited Record Technician. Prerequisite: permission of instructor.

Medical Technology (MEDT)

MEDT 301. Orientation to the Profession of Medical Technology (1) I, II. Professional aspects of medical technology as part of health care team; ethics, responsibilities, and laboratory administration. One three-hour laboratory/discussion.

MEDT 411. Diagnostic Immunology I (1) II. Theory of clinical immunology related to humoral and cellular immunity in health and disease states. Two 75-minute lectures per week. Prerequisites: BIOL 439 and permission of instructor.

MEDT 412. Diagnostic Immunology I Laboratory (1) II. Laboratory application and testing related to humoral and cellular immunity in disease states. One three-hour laboratory. Prerequisites: BIOL 439 and permission of instructor.

MEDT 413. Immunohematology I (2) I. Theory of human blood groups, compatibility testing, detection and identification of antibodies, blood collection/storage, management of transfusion service. Two 75-minute and one 50-minute lecture. Prerequisites: BIOL 439 and permission of instructor.

MEDT 414. Immunohematology I Laboratory (1) I. Laboratory application and testing of human blood groups, compatibility testing, detection and identification of antibodies. Two three-hour laboratories. Prerequisites: BIOL 439 and permission of instructor.

MEDT 421. Hematology I (3) I. Origin, regulation; morphology and function of blood cells in health and disease. Congenital and acquired hematologic aberrations. Two lectures. Prerequisite: BIOL 332 or equivalent.

MEDT 422. Hematology I Laboratory (1) I. Diagnostic laboratory procedures applied to qualitative and quantitative evaluation of blood cells. Two two-hour laboratories. Prerequisites: BIOL 332 or equivalent and permission of instructor.

MEDT 423. Hematology II (1) Summer. Mechanism of hemostasis in health and hemorrhagic and thrombotic disease. Blood cell morphology. One three-hour laboratory. One lecture and one two-hour laboratory. Prerequisite: MEDT 421.

MEDT 441. Clinical Chemistry I (4) I. Theoretical principles of analysis of chemical constituents of body fluids in normal and disease states. Three lectures. Two 75-minute and one 50-minute lecture. Prerequisites: CHEM 308-309 and CHEM 201 and PHYS 201.

MEDT 442. Clinical Chemistry I Laboratory (1) I. Methods, instrumentation and techniques of clinical chemistry through experiments, problems and demonstrations. Two three-hour laboratories. Prerequisites: CHEM 308-309 and CHEM 201 and PHYS 201 and permission of instructor. MEDT 441 recommended.

MEDT 451. Analysis of Body Fluids (1) I. Physiology of urinary system and related diseases. Methods of detection of chemical and cellular elements of urine, cerebral spinal fluid, amniotic fluid, seminal fluid and synovial and other miscellaneous body cavity fluids. One lecture and one three-hour laboratory. One lecture and one laboratory. Prerequisites: BIOL 411 or equivalent. MEDT 441 and 442 recommended.

MEDT 452. Clinical Microbiology I (4) I. Isolation and identification of pathogenic bacteria and fungi from clinical specimens. Recovery and identification of human parasites. Antibiotic sensitivity studies. Three lectures and two three-hour laboratories. Prerequisites: BIOL 426 or equivalent and permission of instructor.

MEDT 453. Clinical Bacteriology II (2) II, summer. MEDT 452 continued; emphasis on application. Nine weeks full-time instruction and practice. Prerequisites: BIOL 426, grade of "C" or better in MEDT 452, and permission of instructor.

MEDT 457. Immunohematology II (1) II. MEDT 413 and MEDT 414 continued; emphasis on clinical application. Four weeks full-time instruction and practice. Prerequisites: MEDT 413 and MEDT 414 with a grade of "C" or better and permission of instructor.

MEDT 460. Hematology III (2) II. Continuation of Phase I hematology sequence with emphasis on clinical application and hospital laboratory instrumentation. Five weeks full-time instruction and practice. Prerequisites: grade of "C" or better in MEDT 421, 422, and 461 and permission of instructor.

MEDT 463. Clinical Chemistry II (4) II, summer. Continuation of MEDT 441 and 442; emphasis on clinical application. Twelve weeks full-time instruction and practice. Prerequisites: MEDT 441, 442 and 464 and permission of instructor.

MEDT 465. Clinical Studies (1) II. Orientation to all clinical laboratory departments and procedures. Laboratory supervision and management. One week full-time orientation and instruction in hospital procedures. Prerequisite: permission of instructor.

MEDT 466. Laboratory Management and Personnel Practices II (1) II. MEDT 465 continued; problem solving and application. One lecture per week. Prerequisite: permission of instructor.

MEDT 470. Research and Special Topics (1-3) I, II, summer. May be repeated to maximum 3 credits. Research techniques: literature search, experimental design, critical reading. Paper required on selected problem. Prerequisite: permission of instructor. Graded S/U.

Military Science (MILS)

MILS 101. ROTC and the National Defense Organization (2) I, II. History, organization, programs, benefits and objectives of Army ROTC. Organization and functions of national defense establishment, with emphasis on the role of the US Army. No military obligation or prerequisites. Freshmen and sophomores only.

MILS 102. Rappelling/Practical Skills (2) I, II. Understanding and application of rappelling, rifle and pistol marksmanship, and basic map reading skills (integrated use of map and compass; terrain evaluation). No military obligation or prerequisites. Freshmen and sophomores only.

MILS 201. Individual/Organizational Leadership (2) I, II. Leadership principles and styles; application of leadership to influence individual and organizational conflict resolution and goal achievement; contemporary military leadership issues and their corresponding applications within organizations. No military obligation or prerequisites.

MILS 301. Ethics and Professionalism (3) I. Ethics, motivation and professionalism required of the US Army Officer. Principles, methods and techniques fundamental to military instruction. Role of branches of the Army, and discussion of military functional specialties. Prerequisite: department permission and completion of one of the following: ROTC basic course at BGSU; ROTC Basic Camp at Fort Knox, KY; prior active duty service; JROTC.

MILS 302. Small Unit Operations (3) II. Organization and employment of basic military team. Squad and platoon-level tactical operations. Progressive leadership development through application of tactical principles. Prerequisite: department permission.

MILS 401. American Military History (3) I. Development of American military institutions, policies, strategy, and tactics from the American Revolution to present. Progressive training in leadership. Lecture material by Department of History. Not open to students with credit in HIST 301. Prerequisite: department permission.

MILS 402. Management Simulation Program (2) I, II. Principles, methods, techniques of decision making and management with practical experience through case application. Duties and responsibilities of junior leaders. No military obligation or prerequisites.

MILS 403. Unit Management and Military Law (3) II. Concepts and fundamentals of Army administrative, supply, material readiness and military justice systems. Organization of the US Army Division and duties and responsibilities required of the Second Lieutenant to effectively manage the small unit. Prerequisite: department permission.

MILS 470. Studies in Military Science (1-3) On demand. Detailed study of selected military subjects. Offered on lecture basis, in seminar, or independent study depending on students' needs and nature of material. May be repeated to six hours. Prerequisite: consent of instructor.

Music Composition and History (MUCH)

MUCH 100. Small Ensembles (1) I, II. Collegium Musicum of College of Musical Arts offered under supervision of Composition/History Department. For freshmen or sophomores. May be repeated. Following small ensembles offered: Renaissance Ensemble, Baroque Ensemble, Indonesian Gamelan, New Music Ensemble.

MUCH 101. Exploring Music (2) I, II. Focus on three types of contexts important to appreciating music: the composer, the place, and the time. Open to non-music majors.

MUCH 110. Elements of Music (3) I, summer. Musical literacy in scales, intervals and triads in two clefs, as demonstrated by singing, hearing, reading, and writing. Open to non-majors, minors, and music majors with consent of instructor.

MUCH 116. Fundamentals of Composition (2) I, II. Basic compositional techniques for students not yet admitted to baccalaureate program in music composition. May be repeated. Cannot be substituted for MUCH 316. Prerequisite: MUCH 110 or consent of instructor.

MUCH 125. Music of World Cultures (3) On demand. Musical systems of major non-Western art musics: Africa, Near East, Pacific, and Asia. Theoretical, analytical, and cultural concepts related to music. Open to non-majors.

MUCH 131. Western Art Music I (4) I, II. Music of Baroque and Rococo periods viewed from theoretical, analytical, historical, cultural and performance perspectives. Prerequisite: MUCH 110 or equivalent.

MUCH 132. Western Art Music II (4) I, II. Music of Classical and Romantic periods viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 131.

MUCH 141. Aural Skills I (2) I, II. Basic skills in singing pentatonic melodies and simple rhythms; memorization, penmanship; active participation. Open to non-majors, minors, and music majors.

MUCH 142. Aural Skills II (2) I, II. Basic comprehensive course in ear training; rhythmic, melodic, harmonic dictation; sight-singing. Prerequisite: MUCH 141.

MUCH 211. Jazz Improvisation and Repertoire I (2) I. Techniques of jazz improvisation and related repertoire, application of basic scales, arpeggios, melodic construction to blues and standard pop tunes.

MUCH 212. Jazz Improvisation and Repertoire II (2) II. Advanced techniques of jazz improvisation and related repertoire, application of modes, altered scales, chord extensions, chromatic harmony to jazz compositions. Prerequisite: MUCH 211.

MUCH 221. Masterpieces of Music (2) I, II. Music of important composers from various periods; directed listening to selected works. Open only to non-majors.

MUCH 231. Western Art Music III (3) I, II. Music of 20th century viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 132.

MUCH 232. Western Art Music IV (2) I, II. Music of Renaissance period viewed from theoretical, analytical, historical, cultural, and performance perspectives. Prerequisite: MUCH 141.

MUCH 233. African Music (2) II. Music of various cultural groups of sub-Sahara Africa. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

MUCH 234. Japanese Music (2) I. Music of Japanese temple, court, theater, and concert. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

MUCH 235. Indonesian Music (2) I, II. Music of principal cultural groups of Indonesia. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 141.

MUCH 236. Jazz Theory (2) I. Prepares student for improvisation or arranging; includes chord spelling, chord-scales, altered dominant harmony, turnarounds and tags, forms, and performance characteristics. Prerequisite: MUCH 131.

MUCH 237. Jazz History (3) I, II. Historical analysis of the music and musicians of jazz styles from 1900-1981. Particular focus on music of bebop, New Orleans, swing, free jazz, and electric jazz. Prerequisite: MUCH 131.

MUCH 241. Aural Skills III (2) I, II. MUCH 142 continued. Prerequisite: MUCH 142. (Music majors must have grade of "C" or better in MUCH 142.)

MUCH 242. Aural Skills IV (2) I, II. MUCH 241 continued. Prerequisite: MUCH 241.

MUCH 300. Small Ensembles (1) I, II. Collegium Musicum of College of Musical Arts offered under supervision of Composition/History Department. For juniors or seniors. May be repeated. Following types of small ensembles offered: Renaissance Ensemble, Baroque Ensemble, Indonesian Gamelan, New Music Ensemble.

MUCH 308. Keyboard Harmony I (2) I. Use of keyboard skills relating to score reading, transposition, extemporization, and accompanying.

MUCH 309. Keyboard Harmony II (2) II. Continuation of keyboard skills developed in MUCH 308; practical aspects of accompanying. Prerequisite: MUCH 308.

MUCH 311. Jazz Arranging and Analysis I (3) I. Swing repertoire, typical chord progressions, formal structure, melodic construction, compositional devices. Basic arranging techniques common to traditional big-band music. Prerequisite: MUCH 212.

MUCH 312. Jazz Arranging and Analysis II (3) II. Harmonic trends of bop period; substitute chords, altered chords, melodic and rhythmic treatment. Addition of double reeds, French horns, and strings to the big-band. Contemporary trends in jazz and commercial music, including small group and rock styles. Prerequisite: MUCH 311.

MUCH 315. Orchestration (2) I. Score analysis, arranging and writing for various families of orchestra - woodwinds, brass, percussion, strings, scoring for full symphonic orchestra. Prerequisite: MUCH 231.

MUCH 316. Composition (3) I, II. Original composition in vocal and instrumental forms. May be repeated to 12 hours. Prerequisite: MUCH 232.

MUCH 318. Symphonic Literature (2) I. Listening to and analysis of works tracing development of symphony and symphonic poem to modern period. Prerequisite: MUCH 231.

MUCH 320. Band Arranging (2) II. Scoring for band instruments, from small ensembles to concert band and marching band. Prerequisite: MUCH 231.

MUCH 3341. Aural Skills V (2) I. MUCH 242 continued. Prerequisite: MUCH 242. For honor students, music composition/theory and students wishing to become tutors for Aural Skills I-IV.

MUCH 401. History and Literature of Jazz (2) I. Jazz from African influences through present developments; personalities involved in stylistic change.

MUCH 403. Counterpoint I (2) I. 16th century counterpoint. Prerequisite: MUCH 232.

MUCH 404. Counterpoint II (2) II. 18th century counterpoint, tonal counterpoint in three and four voices; canon, invention, fugue, chorale-prelude. Prerequisite: MUCH 232.

MUCH 406. Problems in Music History (3) On demand. Research through topics and problems in music history. Prerequisite: consent of instructor. May be repeated to 12 hours.

MUCH 407. Performance Practice (2) I. Performance practice in music, improvisation, ornamentation, accompaniment, instrumentation, rhythm and tempo. Prerequisite: MUCH 232.

MUCH 408. Chamber Music Literature (2) II. Selected major chamber music works of various periods. Reading on all forms and media. Prerequisite: MUCH 232.

MUCH 410. Contemporary Music Pro-Seminar (2) I, II. Musical styles and techniques of 20th century compositional and analytical approach, considering various influences of past. May be repeated to 8 hours. Open automatically to composition majors, to others by consent of instructor. Prerequisite: MUCH 232 with "C" or better.

MUCH 411. Jazz Pedagogy (2) II. Prepares student to teach fundamentals of jazz improvisation, arranging, jazz ensemble techniques. Prerequisite: MUCH 312.

MUCH 412. Opera Literature (2) II. Styles, interpretation, traditional performances of various schools. Prerequisite: MUCH 232.

MUCH 420. Problems and Techniques of Ethnomusicology (2) On demand. Topics and techniques in ethnomusicology. Open to students interested in all music as aspects of culture.

MUCH 424. Electronic Music I (3) I. Basic language and literature of electronic music. One non-credit hour a week in listening laboratory. Problems of live electronic music.

MUCH 425. Electronic Music II (3) II. Various commercial equipment reviewed. Students realize tapes in electronic music studio under faculty supervision. Prerequisite: MUCH 424.

MUCH 431. Aesthetics of Black Music (3) On demand. West African and Afro-American concepts of music; modifying effects America has had from slavery to present.

MUCH 436. Recording Techniques (2) I, II. Concert and studio multi-track recording methods culminating with an actual recording session. Students will gain some hands-on experience. Prerequisite: experience with audio hardware.

MUCH 470. Reading and Research (2-4) I, II. Directed independent reading and research in history, philosophy, theory, or aesthetics of music. Prerequisites: 16 hours of music theory and history, and consent of instructor.

Music Education (MUED)

MUED 125. Percussion Class (1) II. Prerequisite: MUED 145. (Elective).

MUED 130. Trumpet-French Horn Class (1) I, II.

MUED 136. Trombone-Euphonium-Tuba Class (1) I, II.

MUED 140. Clarinet-Saxophone Class (1) I, II.

MUED 145. Flute-Percussion Class (1) I, II.

MUED 146. Oboe-Bassoon Class (1) I, II.

MUED 147. Bassoon Reed Class (1) II. (Elective).

MUED 150. Class Piano (1) I, II. Class piano instruction for beginners and those with minimal keyboard experience. Placement into MUED 150 and 151 is determined on the basis of an audition. Only open for credit to music majors and minors. Grade of "C" or better required for admittance into MUED 151.

MUED 151. Class Piano (1) I, II. MUED 150 continued. Grade of "C" or better required for admittance into sophomore level group piano courses. This course includes Piano Proficiency I.

MUED 154. Class Piano (1) I, II. Intermediate class study. A more advanced approach to the acquisition of functional skills for those with advanced keyboard facility who need class instruction in order to pass functional proficiency requirements. A grade of "C" or better required for admittance into sophomore level group piano courses; includes Piano Proficiency I.

◆ **MUED 156. Beginning Piano for the Non-music Major I** (2) I, II. Class piano course for beginning work in music reading, pop/jazz chords, keyboard technique, improvisation, and elementary piano literature. Not open to music majors or minors.

◆ **MUED 157. Beginning Piano for the Non-music Major II** (2) I, II. MUED 156 continued. Class piano course for beginning work in music reading, pop/jazz chords, keyboard technique, improvisation, and easy piano literature. Not open to music majors or minors. Prerequisite: MUED 156 or equivalent.

MUED 170. Voice Class (1) I, II. Beginning study of voice production, breathing, posture, and diction through vocalises and songs in English.

MUED 177. Voice Class (1) I, II. MUED 170 continued. Prerequisite: MUED 170.

MUED 180. String Class (2) I, II.

MUED 190. Troubadour Harp Class (1) I, II. (Elective).

MUED 195. Guitar Class (1) I, II.

MUED 240. Introductory Music Field Experience (3) I, II. Introduction to the music education profession and a wide variety of teaching situations at all levels. Prerequisite: sophomore standing in music. C/F hrs: 40. Required of all sophomores.

MUED 249. Music Fundamentals (2) I, II. Development of a functional understanding of the elements of music and a basic awareness of the characteristics of the historical periods of music. C = 15 hours. Not open to music majors.

MUED 250. Class Piano: Instrumental Harmonization and Score Reading I (2) I, II. Class piano course for intermediate level work in melody harmonization, pop/jazz chords, and sightreading of piano and instrumental scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 251. Class Piano: Instrumental Harmonization and Score Reading II (1) I. Class piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, pop/jazz chords; and sightreading of piano and instrumental scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 252. Class Piano: Choral Harmonization and Score Reading I (2) I, II. Class Piano course for intermediate level work in melody harmonization, pop/jazz chords, and sightreading of choral scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 253. Class Piano: Choral Harmonization and Score Reading II (2) I. Class Piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, pop/jazz chords, and sightreading of choral scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 254. Class Piano: Classroom Harmonization, Transposition, and Improvisation I (2) I. Class piano course for intermediate level work in melody harmonization, pop/jazz chords, transposition, and improvisation. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 255. Class Piano: Classroom Harmonization, Transposition, and Improvisation I (1) I. Class piano course for students with advanced keyboard facility; intermediate level work in melody harmonization, accompaniment transposition, and improvisation. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying course.

MUED 256. Class Piano: Accompanying as a Teaching Tool I (1) I, II. Class piano course for music education students who are not advanced pianists will provide introductory work in accompanying skills. Prerequisite: Piano Proficiency II. Grade of "C" or better required of music education majors for graduation.

MUED 257. Class Piano: Accompanying as a Teaching Tool II (1) I, II. Class piano course for music education student with advanced keyboard facility; will provide work in accompanying skills. Prerequisite: Piano Proficiency II. Not for keyboard emphasis majors. Grade of "C" or better required of music education majors for graduation.

MUED 331. Student Teaching (10) I, II. Supervised teaching in area schools, supplemented by conferences and seminars. Required of all music education majors. Meets student teaching requirement for special teacher's certification in music. Prerequisites and guidelines for student teaching stated under music education. Special fee assessed. Graded S/U.

MUED 332. Student Teaching (2-7) I, II. Additional student teaching experience taken upon advice of music education faculty. Special fee assessed. Graded S/U.

MUED 340. Junior Methods Project in Music (9) I (Choral, String, Elementary/ junior high band option), II. (Secondary instrumental, classroom options). Concentrated study of teaching and administering music in grades K-12; emphasizes correlation of methods seminars with field and clinical activities. C/F hrs: 30-90. Taken in conjunction with conducting, applied study and ensemble. Prerequisite: MUED 240.

MUED 349. Music as a Teaching Tool (2) I, II. Development of skills in teaching procedures and related aspects of teaching. Acquisition of procedures for integrating music into classroom activities. C = 15 hours. Not open to music majors.

MUED 359. Examination and Performance of Choral Repertoire (2) I. Material suitable for use in secondary schools; related performance problems and their solutions.

MUED 360. Musical Theatre Production Survey (2) II. On demand. Overview of considerations necessary in production of music theatre at public school level.

MUED 402. Beginning Wind and Percussion Instrument Repair (1) II. Basic practices and techniques of instrument repair.

MUED 450. Adult Group Piano Teaching (2) II. A survey of materials, supervised teaching, and program development appropriate for the adult level class. Open to students with a strong piano background. Consent of instructor required. Available for graduate credit also. Alternate years beginning 1983 or on demand.

MUED 451. Advanced Methods for Classroom Music (2) I. Examination of methods, instructional hardware, organizational patterns, and curricular models. Available for graduate credit also. Prerequisite: MUED 340 or consent of instructor.

MUED 458. Marching Band Techniques (2) I. Techniques in planning, charting and rehearsing marching band shows and administering public school marching bands. Prerequisite: junior standing.

MUED 491. Teaching Practicum (1-2) I, II. Supervised teaching in University laboratory schools for junior level classroom, choral or instrumental option music education majors. Prerequisite: consent of instructor. Graded S/U.

Music, General (MUS)

MUS 099. Recital Attendance (0) I, II. Required of all music majors for six semesters. Successful completion of course requires attendance at minimum of 15 on-campus music performances. Graded S/U.

MUS 190. Beginning Guitar (2) I, II. Introduction to the guitar, fundamentals of technique and music notation reading. Open to non-music majors only.

MUS 191. Intermediate Guitar (2) I, II. MUS 190 continued. Open to non-music majors only. Prerequisites: MUS 190 or previous experience and consent of instructor.

Music Performance Studies (MUSP)

MUSP 100. Small Ensembles (1) I, II, summer. Formed under supervision of College of Musical Arts and offered on demand. For freshmen or sophomores. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in small ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

MUSP 100a. Music Theater Productions.
MUSP 100b. Folk Ensembles.
MUSP 100c. Percussion.
MUSP 100d. Brass Choir I.
MUSP 100e. Euphonium-Tuba.
MUSP 100f. Brass.
MUSP 100g. Jazz Lab I.
MUSP 100h. String.
MUSP 100i. Trombone Choir.
MUSP 100j. Jazz Lab II.
MUSP 100k. Woodwind.
MUSP 100l. Horn Ensemble.
MUSP 100m. Jazz Lab III.
MUSP 100n. Brass Choir II.
MUSP 100o. Harp.
MUSP 100p. Piano Ensemble.
MUSP 100q. Piano Accompaniment.
MUSP 100r. Mixed Chamber.
MUSP 100s. Collegiate Chamber Singers.
MUSP 100t. Saxophone Ensemble.

MUSP 160. Sight Reading I (1) II. Development of visual comprehension of intervallic patterns and comprehension of basic rhythmic patterns. Prerequisite: consent of instructor.

MUSP 195, 221, 231-235, 241-245, 261-263, 271-272, 281-285. Applied Instruction. One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$45 fee for each half hour of applied instruction assessed each quarter. (Maximum of \$90 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

MUSP 195. Pedal Harp Class (1) I, II. Prerequisite: one quarter of Troubadour Harp (MUED 190) or permission of instructor. Fee: \$22.50.

MUSP 221. Applied Percussion (1,2,3,4) I, II, summer.

MUSP 231. Applied Trumpet (1,2,3,4) I, II, summer.

MUSP 232. Applied French Horn (1,2,3,4) I, II, summer.

MUSP 233. Applied Trombone (1,2,3,4) I, II, summer.

MUSP 234. Applied Euphonium (1,2,3,4) I, II, summer.

MUSP 235. Applied Tuba (1,2,3,4) I, II, summer.

MUSP 241. Applied Flute (1,2,3,4) I, II, summer.

MUSP 242. Applied Oboe (1,2,3,4) I, II, summer.

MUSP 243. Applied Clarinet (1,2,3,4) I, II, summer.

MUSP 244. Applied Saxophone (1,2,3,4) I, II, summer.

MUSP 245. Applied Bassoon (1,2,3,4) I, II, summer.

MUSP 261. Applied Piano (1,2,3,4) I, II, summer.

MUSP 262. Applied Harpsichord (1,2,3,4) I, II.

MUSP 263. Applied Organ (1,2,3,4) I, II, summer.

MUSP 271. Para-Voice (2) I, II. Fee: \$45.

MUSP 272. Applied Voice (1,2,3,4) I, II, summer.

MUSP 281. Applied Violin (1,2,3,4) I, II, summer.

MUSP 282. Applied Viola (1,2,3,4) I, II, summer.

MUSP 283. Applied Cello (1,2,3,4) I, II, summer.

MUSP 284. Applied Double Bass (1,2,3,4) I, II, summer.

MUSP 285. Applied Harp (1,2,3,4) I, II.

MUSP 210. Piano Repertoire (3) I. Alternate years. Literature from early keyboard music through classical. Prerequisite: consent of instructor.

MUSP 211. Piano Repertoire (3) II. Alternate years. Piano literature from Romantic era to present. Prerequisite: consent of instructor.

MUSP 214. Singer's Diction-Italian (2) I. International phonetic alphabet used as basis for phonetic analysis of Italian text in applying principles of lyric Italian diction as concerns the singer, simple grammatic construction; use of dictionary.

MUSP 215. Organ Repertoire (2) I. Alternate years. Organ literature from 1325 to the present, excluding the music of J.S. Bach. Prerequisite: consent of instructor.

MUSP 216. Organ Repertoire (2) II. Alternate years. Organ music of J.S. Bach. Prerequisite: consent of instructor.

MUSP 238-239, 277-279, 288-289. Large Ensembles (1-2) I, II. Open to any University student possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 277 or MUSP 278 or MUSP 279 only with consent of his/her voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

MUSP 238. Symphonic or Concert Band* (freshman-sophomore) (1-2).

MUSP 239. Marching Band* (freshman-sophomore) (2).

MUSP 277. A Capella Choir (freshman-sophomore) (1).*

MUSP 278. Collegiate Chorale (freshman-sophomore) (2).*

◆ **MUSP 279. University Chorus** (freshman-sophomore) (1).*

MUSP 288. Chamber Orchestra (freshman-sophomore) (1).*

MUSP 289. Symphony Orchestra (freshman-sophomore) (2).*

MUSP 264. Accompanying Techniques I (1) I. Problems involving musical comprehension of solo part together with accompaniment, general introduction to vocal and instrumental accompaniment literature. Prerequisite: MUSP 160 or consent of instructor.

MUSP 265. Piano Four-Hand Class (1). On demand. Appropriate four-hand keyboard literature; emphasis on 19th century. Prerequisite: MUSP 160 or consent of instructor.

MUSP 275. Introduction to Opera Workshop (2) I. Basic terminology and practices of opera theatre.

*Audition or faculty assignment required.

MUSP 300. Small Ensembles (1) I, II. Formed under supervision of College of Musical Arts and offered on demand. For juniors or seniors. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in small ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

MUSP 300a. Music Theater Productions.
MUSP 300b. Folk Ensemble.
MUSP 300c. Percussion.
MUSP 300d. Brass Choir I.
MUSP 300e. Euphonium-Tuba.
MUSP 300f. Brass.
MUSP 300g. Jazz Lab I.
MUSP 300h. String.
MUSP 300i. Trombone Choir.
MUSP 300j. Jazz Lab II.
MUSP 300k. Woodwind.
MUSP 300l. Horn Ensemble.
MUSP 300m. Jazz Lab III.
MUSP 300n. Brass Choir II.
MUSP 300o. Harp.
MUSP 300p. Piano Ensemble.
MUSP 300q. Piano Accompaniment.
MUSP 300r. Mixed Chamber.
MUSP 300s. Collegiate Chamber Singers.
MUSP 300t. Saxophone Ensemble.

MUSP 305. Conducting I (2) I. Fundamental beat and cueing techniques.

MUSP 306. Conducting II (2) II. Advanced study and analysis of baton techniques, score reading, and rehearsal procedures; concentration option of either instrumental or choral conducting. Prerequisite: MUSP 305.

MUSP 311. Vocal Repertoire (2) I. Late 19th century to present British and American song literature; repertoire for high school vocal solo contest; Scandinavian and Russian song literature. Prerequisite: consent of instructor.

MUSP 312. Vocal Repertoire (2) II. Alternate years. 19th and 20th century French, Spanish, and German art song literature. Prerequisite: consent of instructor.

MUSP 360. Sight Reading II (1) I. Rapid comprehension of complex intervallic and rhythmic patterns, coordinates problems involving ensemble precision. Prerequisite: MUSP 160 or equivalent skill level.

MUSP 361. Style and Interpretation (1) I. Supervised preparation and analysis of selected works of early keyboard music through classic; emphasis on style and interpretation. Prerequisite: MUSP 211.

MUSP 362. Style and Interpretation (1) II. Supervised preparation and analysis of selected keyboard works from the Romantic era to the present; emphasis on style and interpretation. Prerequisite: MUSP 211.

MUSP 364. Accompanying Techniques II (1) II. Continuation of previous course work; advanced problems involving visual comprehension and aural prehension of solo part together with accompaniment; problems of temporal displacement of scansion and physical execution. Prerequisite: MUSP 264 or consent of instructor.

MUSP 367. Piano Pedagogy (3) I. Methods, materials, and teaching techniques for the beginning pre-college student. Prerequisite: consent of instructor.

MUSP 368. Piano Pedagogy II (3) II. Methods, materials, and teaching techniques for the intermediate pre-college student. Prerequisite: MUSP 367 or consent of instructor.

MUSP 378. Opera Workshop (2) I, II, summer. Development of stage techniques for more advanced students in productions of scenes and complete operas. Total of 12 credit hours possible. Vocal performance majors required to take four hours. Prerequisite: MUSP 275 or consent of instructor.

MUSP 396. Service Playing (2) I. Alternate years. Hymn playing, transposition, modulation, improvisation, and accompanying at the organ. Prerequisite: consent of instructor.

MUSP 397. Service Playing (2) II. Alternate years. MUSP 396 continued. Prerequisite: MUSP 396 or consent of instructor.

MUSP 410. Harpsichord Repertoire (3) I. Keyboard literature to 1700 based on original source material and contemporary editions; emphasis on performance. Prerequisite: consent of instructor.

MUSP 411. Harpsichord Repertoire (3) II. Solo harpsichord literature from 1700 to the present; emphasis on performance. Prerequisite: consent of instructor.

MUSP 415. Organ Construction (2) II. Chronological history of the design and construction of the organ. Prerequisite: consent of instructor.

MUSP 416. Church Music (2) II. On demand. Music of the major Western churches; plain-song, hymnology, liturgies. Prerequisite: consent of instructor.

MUSP 421, 431-435, 441-445, 461-463, 471-472, 481-485. Applied Instruction. One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$45 fee for each half hour of applied instruction assessed each quarter. (Maximum of \$90 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

MUSP 421. Applied Percussion (1,2,3,4) I, II, summer.

MUSP 431. Applied Trumpet (1,2,3,4) I, II, summer.

MUSP 432. Applied French Horn (1,2,3,4) I, II, summer.

MUSP 433. Applied Trombone (1,2,3,4) I, II, summer.

MUSP 434. Applied Euphonium (1,2,3,4) I, II, summer.

MUSP 435. Applied Tuba (1,2,3,4) I, II, summer.

MUSP 441. Applied Flute (1,2,3,4) I, II, summer.

MUSP 442. Applied Oboe (1,2,3,4) I, II, summer.

MUSP 443. Applied Clarinet (1,2,3,4) I, II, summer.

MUSP 444. Applied Saxophone (1,2,3,4) I, II, summer.

MUSP 445. Applied Bassoon (1,2,3,4) I, II, summer.

MUSP 461. Applied Piano (1,2,3,4) I, II, summer.

MUSP 462. Applied Harpsichord (1,2,3,4) I, II, summer.

MUSP 463. Applied Organ (1,2,3,4) I, II, summer.

MUSP 471. Para-Voice (2) I, II. Fee: \$45

MUSP 472. Applied Voice (1,2,3,4) I, II, summer.

MUSP 481. Applied Violin (1,2,3,4) I, II, summer.

MUSP 482. Applied Viola (1,2,3,4) I, II, summer.

MUSP 483. Applied Celio (1,2,3,4) I, II, summer.

MUSP 484. Applied Double Bass (1,2,3,4) I, II, summer.

MUSP 485. Applied Harp (1,2,3,4) I, II, summer.

MUSP 438-439, 477-479, 488-489. Large Ensembles (1-2) I, II. Open to any University student possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 477 or MUSP 478 or MUSP 479 only with consent of his/her voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

MUSP 438. Symphonic or Concert Band (junior-senior) (1-2).*

MUSP 439. Marching Band (junior-senior) (2).*

MUSP 477. A Capella Choir (junior-senior) (1).*

MUSP 478. Collegiate Chorale (junior-senior) (2).*

MUSP 479. University Chorus (junior-senior) (1).*

MUSP 488. Chamber Orchestra (junior-senior) (1).*

MUSP 489. Symphony Orchestra (junior-senior) (2).*

MUSP 453. Brass Pedagogy (2) II. Teaching techniques and materials for brass instruments. Prerequisite: consent of instructor.

MUSP 454. Woodwind Pedagogy (2) II. Teaching techniques and materials for woodwind instruments. Prerequisite: consent of instructor.

MUSP 458. String Pedagogy (2) II. Upper and lower strings. Principles of teaching stringed instruments. Investigation of related literature and materials. Prerequisite: consent of instructor.

MUSP 459. Organ Pedagogy (2) I or II or summer. On demand. Principles and techniques and literature applied to various levels of organ study. Prerequisite: consent of instructor.

MUSP 466. Piano Pedagogy Practicum (1) I, II, summer. Laboratory in supervised piano teaching, both private and classes. Prerequisite: MUSP 367 or consent of instructor. May be repeated.

MUSP 467. Piano Technology (1) I. Appreciation of piano building, repair, and tuning. Minor repairs, regulation, and art of tuning. Prerequisite: consent of instructor.

MUSP 470. Readings, Research, and Performance in Music (1-5) I, II, summer. Directed independent readings, research, and/or performance in performance studies in music. Prerequisites: consent of instructor and department chair.

MUSP 495. Senior Recital (2) I, II, summer. For performance studies majors. Full recital required during senior year prior to graduation. Recital repertoire requirements determined by respective areas within performance studies department. Prerequisite: consent of area coordinator.

*Audition or faculty assignment required.

Nursing (NURS)

NURS 100. Orientation to Nursing (1) I. Assists freshmen in choosing nursing as major and career goal; professional nurse's role, history of nursing, future trends in relation to current U.S. health care delivery system. Graded S/U.

NURS 205. Healthy Self and Young Adult (4) I. Introduction to nursing as a profession and the Self-Care Deficit Theory. Assessment of universal self care requisites. Emphasis on health promotion and disease prevention for students and other young adults. Introduction to communication skills. Three hours of class and six hours of media-skills laboratory and clinical experience weekly. Prerequisite: admission to nursing major.

NURS 206. Healthy Adult/Older Adult (3) II, summer. Design, implement and evaluate nursing systems to meet universal and developmental self-care deficits in middle-aged and older healthy adults. Developing communication skills for this population group. Three hours of lecture and six hours of media-skills laboratory and clinical experience weekly. Prerequisite: NURS 205.

NURS 207. Healthy Child and Family (3) II, summer. Assisting children and families in meeting universal and developmental self-care requisites; assessing common risks to infant health and childhood development; increasing communication skills. Knowledge of preventive measures related to prenatal, intrapartal, postnatal and neonatal/child care. Three hours class and six hours media-skills laboratory and clinical experience weekly. Prerequisite: NURS 205.

NURS 260. Human Anatomy (3) I. Structure of body systems. Prerequisite: admission to nursing major.

NURS 261. Human Physiology (4) II. Function of cardiovascular, respiratory, urinary, muscular, nervous, endocrine, gastrointestinal and reproductive systems. Prerequisite: NURS 260.

NURS 303. Clinical Nursing Ethics (1) I, II, summer. To assist nursing students to recognize ethical situations as they occur in clinical practice and to deal with those situations on the basis of reasoned ethical decision making. Prerequisite: NURS 206 and 207. Prerequisite with or concurrent to PHIL 342. Graded S/U.

NURS 305. Adult Physiologic Health Deviations I (5) I, II, summer. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in air, solitude and social interaction, activity and rest, and being normal. Four hours of class and twelve hours of clinical experience weekly. Prerequisites: NURS 206 and 207.

NURS 306. Adult Physiological Health Deviations II (5) I, II, summer. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in food, water, elimination, hazards to life and well-being. Four hours of class and nine hours of clinical experience weekly. Prerequisites: NURS 206 and 207.

NURS 307. Hospitalized Child and Family (5) I, II, summer. Health focus oriented to biological state of newborn, infants with size or maturity alteration or genetic defects. Hospital maternity and pediatric experience. Four hours of class and twelve hours of clinical experience weekly. Prerequisites: NURS 206 and 207.

NURS 320. Self-Care Deficit Theory for Nursing Practice I (2) I. Focuses on Orem's self-care deficit theory as foundation for professional nursing practice. Emphasis on application of nursing process in a holistic approach to clients for systematic helping and interpersonal relating. Three hours of class. Prerequisite: admission to RN sequence. To be taken concurrently with NURS 321.

NURS 321. Nursing Assessment I (2) I. Integration of nursing process with introduction of basic skills of history taking and physical assessment. Application of physical assessment skills includes examination of skin, head and neck, lungs, thorax, and breast. One class hour and six hours of lab weekly. Prerequisite: admission to RN sequence. To be taken concurrently with NURS 320.

NURS 322. Self-Care Deficit Theory for Nursing Practice II (3) II. Extends concepts in self-care theory deficit theory with emphasis on design of nursing systems and application of Egan's model for interpersonal relating. Three hours of class weekly. Prerequisite: NURS 320. To be taken concurrently with NURS 323.

NURS 323. Nursing Assessment II (2) II. Continues focus on integration of nursing process with physical assessment. Application of physical assessment skills include examination of heart, abdomen, genitalia, and neuromuscular system resulting in a total physical examination. One hour of class and six hours of lab weekly. Prerequisite: NURS 321. To be taken concurrently with NURS 322.

NURS 324. Professional Development in Nursing (2) Summer. Role development in professional nursing. Emphasis on development of a career plan, with timetables and strategies for achieving career goals, and current issues in nursing. Three hours of class weekly. Prerequisites: NURS 321 and 322.

NURS 350. Physiology II and Pathophysiology (3) I. Function of cardiovascular, respiratory, urinary systems; function of disease processes in human organism. Prerequisite: NURS 261.

NURS 351. Microbiology and Infectious Disease Processes (3) II. Microbiology, immunology, pathologic responses to infection, principal infectious diseases of man; structure and function of bacteria and viruses, antigen-antibody reactions, serology, growth and inhibition of microorganisms, pathogenesis and disease. Prerequisite: NURS 350.

NURS 352. Pharmacology and Therapeutics (3) Summer. Pharmacologic principles, drug metabolism, methods by which body handles drugs, classes of drug agents, effects on body's systems. Prerequisite: NURS 351.

NURS 400. Adult Psychologic Health Deviations (3-6) I, II, summer. Three hours of class and eighteen hours of clinical experience each week. Regulation of behavioral disorders; evaluation of effectiveness of nursing systems with groups of chronically ill clients; rehabilitative mental health care. Prerequisites: NURS 305, 306, and 307, or NURS 324 for RN students.

NURS 401. Community Health Nursing (3-6) I, II, summer. Three hours of class, eighteen hours of clinical experience each week. Health focus oriented to groups of chronically ill clients in the community; legislation, financing of health care systems; epidemiologic method of investigation. Prerequisites: NURS 305, 306, and 307 or NURS 324 for RN students.

NURS 402. Management for Quality Care (3-6) I, II, summer. Three hours of class, eighteen hours of clinical experience each week. Leadership, change theory and quality assurance concepts applied in management of groups of clients in variety of settings. Prerequisites: NURS 305, 306, and 307 or NURS 324 for RN students

NURS 405. Oncologic Nursing (3) I, II, summer. Concepts, theories and trends in care of patient with cancer. Includes management methodologies and nurse's role in diagnosis, treatment and rehabilitation, in both preventive and supportive areas. Prerequisites: NURS 305, 306, 307 or NURS 324 for RN students.

NURS 411. Basic Concepts in Nursing Research I (1) I, II. Formulation of research questions relevant to health care. Graded S/U.

NURS 412. Basic Concepts in Nursing Research II (2) II, summer. The research process; review of literature in relation to health problem. Prerequisite: NURS 411. Graded S/U.

NURS 470. Independent Study in Nursing (1-3) I, II, summer. Research or project designed by student with guidance of a faculty member. Open to senior students who have obtained consent of a faculty member.

Operations Research (OPRE)

OPRE 380. Introduction to Operations Research (3) I, II. Philosophy underlying formulation of business problems in quantitative terms. Linear programming, special cases of linear programming, sensitivity analysis, inventory theory, and simulation. Prerequisite: MATH 125 or MATH 131, sophomore business core, or consent of instructor.

OPRE 480. Linear and Integer Programming (3). Modeling industrial and public administration problems via linear and integer programming; sensitivity analysis; parametric programming; dual, cutting plane methods; branch and bound methods; current topics in integer programming. Prerequisite: OPRE 380.

OPRE 482. Computer Simulation of Stochastic Systems (3). Techniques of setting up stochastic models for inventory, production, queuing, scheduling, economic systems; implementing these models using computer simulation languages (e.g. GPSS). Prerequisites: STAT 212 or MATH 442, and at least one computer programming course.

OPRE 485. Introduction to Stochastic Models (3). Problems of incorporating risk into decision models; queuing theory; stochastic inventory models; Markov chains; stochastic mathematical programming. Prerequisite: OPRE 380. STAT 315 recommended.

OPRE 487. Network Theory and Special Topics in Mathematical Programming (3). Modeling industrial and public administration problems via network models; PERT transshipment, assignment, shortest route, maximal flow, out-of-kilter algorithm; goal programming; advanced topics in mathematical programming. Prerequisite: OPRE 480

OPRE 488. Theory of Inventory Systems (3). Theory and techniques of constructing and analyzing mathematical models of inventory systems; models under stochastic conditions. Prerequisite: OPRE 485.

OPRE 489. Applied Nonlinear and Dynamic Programming (3). Quadratic and separable programming; gradient projection; penalty function and search methods. Dynamic programming with discrete and continuous variables, and its relationship to linear programming; geometric programming; applications in industry and public administration. Prerequisite: OPRE 480 or consent of instructor.

OPRE 491. Studies in Operations Research (1-3) On demand. Investigation of selected areas of contemporary problems. May be offered individually and in classes, depending on student needs and nature of material

Philosophy (PHIL)

◆ **PHIL 101. Introduction to Philosophy** (3) I, II. Systematic study of enduring human concerns about God, morality, society, the self and knowledge.

◆ **PHIL 102. Introduction to Ethics** (3) I, II. Discussion of ethical concepts such as good and evil and right and wrong in the context of contemporary moral issues, major ethical theories a basis for dealing with contemporary moral concerns.

◆ **PHIL 103. Introduction to Logic** (3) I, II. Uses of language including definitions and arguments, typical mistakes in reasoning, and methods for evaluating arguments.

◆ **PHIL 107. Introduction to Social Philosophy** (3) I, II. Freedom, authority, law, the state examined philosophically to determine nature of "individual" and "society" and relationship that should exist between them; violence, rights (legal and moral), punishment, alienation, justice, etc.

PHIL 204. Aesthetics (3) I, II. Meaning of "beauty" or aesthetic value in art and nature, approached problematically and applied to present-day experiences.

PHIL 210. Philosophy of Development of Persons (3) I, II. Self-development and criteria for evaluating life plans. Concepts of self-esteem and social responsibility applied to personal and counseling situations.

PHIL 211. History of Ancient Philosophy (3) I. Progress of Greek philosophy from its earliest origins in Greece through the Presocratics, Plato, and Aristotle, concluding with main themes of Hellenistic, Roman and medieval philosophy. PHIL 211 can function as an excellent introduction to philosophy.

PHIL 212. History of Modern Philosophy (3) II. Modern philosophy from its beginnings in the Renaissance through the rationalists, empiricists, and Kant. Attention to emergence of skepticism and rise of modern science as important influences on the development of modern philosophy. PHIL 212 can function as an excellent introduction to philosophy.

◆ **PHIL 230. Scientific Reasoning** (3) I or II. Study of the scientific method which develops skills for interpreting scientific findings, and evaluating theories, tests and causal and statistical claims. One component deals with decision-making procedures based on these evaluations. No prerequisites.

◆ **PHIL 240. Topics in Philosophy** (3) I, II. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.

- PHIL 245. Philosophy of Feminism** (3) I or II. Philosophical presuppositions and specific proposals of feminists; view on sex roles, human welfare, justice and equality, rights, self-actualization, self-respect, autonomy, exploitation, oppression, freedom and liberation, reform and revolution.
- PHIL 303. Symbolic Logic** (3) I or II. Notation and proof procedures used by modern logicians to deal with special problems beyond traditional logic; propositional calculus, truth tables, predicate calculus, nature and kinds of logical proofs.
- PHIL 311. History of Medieval Philosophy** (3) I Alternate years. Offered in 1982-83. Major philosophical positions of Middle Ages; St. Augustine through Renaissance philosophers.
- ◆ **PHIL 313 History of Contemporary Philosophy** (3) II. Major movements in the 20th century, some emphasis on the most recent ones; includes existentialism, logical atomism, ordinary language analysis, and recent American analytic philosophy, and such philosophers as Sartre, Russell, Wittgenstein, Austin, Quine, and Davidson.
- PHIL 315. American Thought** (3) I or II. Philosophical thought in America; emphasis on pragmatists (Peirce, James, Dewey); Natural Rights philosophy, transcendentalism, other major figures such as Royce, Santayana, Whitehead.
- ◆ **PHIL 317. Philosophy of Religion** (3) I or II. Nature of religion; gods and/or God; faith, revelation, and religious belief; evil and righteousness; meaning of life. Readings from variety of sources, largely contemporary.
- PHIL 318. Philosophy of Law** (3) I, II. Philosophical foundations of legal system; essential nature of law and relation to morality; liberty, justice, and legal responsibility (intention, human causality, negligence, *mens rea*, fault, etc.) and punishment.
- ◆ **PHIL 319. Philosophy of Death and Dying** (3) I, II. Conceptual, metaphysical, and epistemological issues related to nature of death; existential issues related to human significance of death for individual and community; normative issues related to care of dying.
- PHIL 320. Business Ethics** (3) I, II. Value conflicts that arise in business situations and philosophical ways of resolving them including issues involving the social responsibility of business people. No prerequisite.
- PHIL 321. Indian Philosophy** (3) I or II. Traditional schools such as Nyaya-Vaisesika, Sankhya-Yoga, Buddhism and Vedanta; epistemology, systems of formal inference, causality, metaphysics, mind-body relationships, methodological presuppositions.
- PHIL 323. Asian Religions** (3) I or II. Fundamental tenets of major oriental religions – Hinduism, Buddhism, Jainism, Confucianism, Taoism, and Shintoism; cultural backgrounds of India, China, and Japan.
- PHIL 325. Communism, Capitalism and Democracy** (3) I or II. Freedom, alienation, human nature, the state, etc. as they function in communist, capitalist and democratic ideology.
- PHIL 327. Philosophy of Punishment** (3) I, II. Justification of capital punishment; acceptability of imprisonment as punishment; desirability of treating criminals as mentally ill rather than punishing them; related issues of different theories of punishment.
- PHIL 331. Existentialism** (3) I or II. Various existential themes, including the meaning of life, human freedom, the limits of reason, the meaning of death, and the individual vs. society. Kierkegaard, Nietzsche, Dostoevsky, Camus, Sartre, Jaspers, Buber, and others comprise the reading.
- PHIL 332. Environmental Ethics** (3) I or II. Framework to assess possible responses to environmental problems in light of human rights, standards of justice, and harm and benefit accruing from alternative solutions.
- PHIL 333. Philosophy in Science Fiction** (3) I or II. Ethical problems such as implications for man of advancement of science, relation of individual to state; metaphysical problems such as distinguishing men from robots, possibility of time travel.
- ◆ **PHIL 334. Philosophy in Literature** (3) I or II. Death, perception of self, conflict of values occurring in novels, plays, and poetry from various cultures. Content may vary from instructor to instructor, and from semester to semester. May be taken only once for credit.
- PHIL 335. Philosophy of Film** (3) I or II. Aesthetic theories concerning definition of film as distinctive art form; criteria for evaluation of films. Popular, documentary, art, and experimental films shown in class.
- PHIL 340. Problems in Philosophy** (3) I, II. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.
- PHIL 342. Medical Ethics** (3) I, II. Selected topics such as genetic engineering, euthanasia, honesty with the dying, and human experimentation viewed from perspective of representative ethical theories.
- PHIL 395. Workshop on Current Topics** (1-4) I, II On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format is used. Requirements are usually completed within this expanded time format. May be repeated if topics differ and adviser approves.
- PHIL 403. Topics in Logic** (3) I or II. Content varies from year to year. Topics include: modal logic, meta-theory of propositional and predicate logic, philosophy of logic. May be repeated for credit. Prerequisite: PHIL 303 (or equivalent) or consent of instructor.
- PHIL 406. Philosophy of Language** (3) I Alternate years: offered 1982-83. Historical and contemporary theories of meaning; their use in resolving traditional philosophical controversies and in providing foundation for contemporary analytic philosophy; various interdisciplinary connections.
- PHIL 412. Theory of Knowledge** (4) I or II; Alternate years. Survey of traditional epistemological issues and concepts combined with indepth treatment of some epistemological problem(s). Prerequisite: twelve hours of philosophy.
- PHIL 414. Metaphysics** (4) I or II; Alternate years. Survey of traditional metaphysical issues and concepts combined with indepth treatment of some metaphysical problem(s). Prerequisite: twelve hours of philosophy.
- PHIL 415. Topics in American Philosophy** (3) I or II. Theme or themes central to American philosophy. Prerequisite: or e course in PHIL (excluding PHIL 103) or consent of instructor.
- PHIL 418. Philosophy of History** (3) I or II. Nature of historical knowledge and certain metaphysically oriented theories of history. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.
- PHIL 423. Philosophy in Historical Perspective** (4) I or II. Historical development and cultural background of a philosophical movement, issue or period combined with an indepth study of views of a major philosopher within that context. The latter will emphasize the integration of the philosopher's metaphysical, epistemological, and normative theories into a coherent world view. May be repeated. Prerequisite: twelve hours of philosophy.
- PHIL 425. Moral and Social Philosophy** (4) I or II. An indepth treatment of some theme(s) in social philosophy combined with a survey of traditional ethical theories as a background to social philosophy. Prerequisite: twelve hours of philosophy.
- PHIL 431. Topics in Philosophy of Science** (3) I or II. Content varies from year to year. Topics include: nature of scientific explanation, causality, contemporary empiricism, philosophy of biology, methods, presuppositions, concepts of behavioral sciences. May be repeated for credit. Prerequisite: three hours in PHIL and/or course work in sciences or consent of instructor.
- PHIL 433. Philosophy and Physics of Space and Time** (3) II. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes, Greek concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Course presupposes high school level mathematics only. Cross-disciplinary; cross-listed in PHYS.
- PHIL 470. Readings and Research** (1-3) I, II. Supervised independent work in selected areas. Prerequisite: twelve hours of PHIL and consent of chair of department. May be repeated to six hours.
- PHIL 480. Seminar in Philosophy** (3) I, II. Indepth examination of one specific philosopher, philosophical movement, or problem. Determined by need and interest of student. Prerequisite: four hours in PHIL (excluding PHIL 103) or consent of instructor.

Physical Education (PEG and PEP)

(See health, physical education and recreation)

Physics (PHYS)

PHYS 100. Basic Physics (3) II, summer. For nonscience student; major principles and concepts; application to other fields. Cannot be used as part of physics major or minor.

PHYS 101. Physics for Society (3) II. Relation of physics to areas of natural science, cultural development, and society. Two lecture-recitations and one two-hour laboratory. For nonscience student; not acceptable toward physics major or minor.

PHYS 104. Physics for Elementary Teachers (2) I. Introduction to laws of motion, heat flow, electricity, and microscopic structure of matter; concepts used in the statement of these laws and their applications.

PHYS 105. Physics and Sports (2) I. Alternate years. Basic physical principles, using athletic activities as examples.

PHYS 106. Physics of Photography (2) I. Alternate years. Elementary physics applied to the photographic process. Intended to help photographers better understand their equipment. Topics include: elementary optics of lens systems, macrophotography, exposure control, black and white film, and color theory.

◆ **PHYS 201. College Physics I (5) I, II,** summer. First term of an introductory physics sequence intended for students without calculus. Motion, forces, energy, electricity, magnetism and electrical measurements. Four lecture-recitations and one two-hour laboratory. Prerequisites: algebra and trigonometry.

◆ **PHYS 202. College Physics II (5) I, II,** summer. PHYS 201 continued. Heat; wave motion, sound; optics; atomic and nuclear physics. Four lecture-recitations and one two-hour laboratory. Prerequisite: PHYS 201.

◆ **PHYS 211. University Physics I (5) I.** Introductory calculus-based physics sequence for science and engineering majors. Kinematics in one, two, and three dimensions; Newtonian mechanics; gravitation; heat and thermodynamics. Four lecture-recitations and one two-hour laboratory. Corequisite: MATH 131.

◆ **PHYS 212. University Physics II (5) II.** PHYS 211 continued. Wave motion, sound, optics, electricity and magnetism. Four lecture-recitations and one two-hour laboratory. Prerequisite: PHYS 211. Corequisite: MATH 232.

PHYS 299. Semester Transition Course (1-4). Special course to bridge a gap or end a quarter sequence for which there is no exact counterpart in the conversion to semesters. Specific title will describe the quarter course or portion replaced. Prerequisite: consent of department.

PHYS 301. Modern Physics (3) I. Topics from relativity; quantum physics; nuclear, atomic and molecular physics. Three lecture-recitations. Prerequisites: one year of calculus and PHYS 201; or PHYS 212. Student must also register for PHYS 313.

PHYS 303. Electronics (3) II. Discussion and laboratory practice in networks, transistors, integrated circuits, and associated circuitry. Two lecture-recitations and one three-hour laboratory. Prerequisite: PHYS 201 or PHYS 212.

PHYS 305. Wave Laboratory (1) II. Introduction to advanced experimental techniques and data analysis; laboratory investigation of wave phenomena. One three-hour laboratory. Prerequisites: PHYS 212, or PHYS 202 and one year of calculus.

PHYS 306. Thermodynamics and Statistical Physics (3) I. Alternate years. Thermodynamic laws, entropy, specific heat, kinetic theory; classical and quantum statistics. Three lecture-recitations. Prerequisites: one year of calculus and PHYS 202; or PHYS 212.

PHYS 307. Mechanics and Wave Motion (3) II. Mechanics of periodic systems including: the Kepler problem; driven harmonic oscillator; and coupled oscillators. Fundamentals of wave motion and the propagation of waves in elastic media. Three lecture-recitations. Prerequisites: PHYS 212; or PHYS 202 and one year of calculus.

PHYS 309. Atomic and Nuclear Physics (3) II. Phenomenological basis of our understanding of atomic phenomena, fundamental ideas of atomic structure, structure of nuclei and basic decay processes. Three lecture-recitations. Prerequisite: PHYS 301.

PHYS 313. Modern Physics Laboratory (1) I. Laboratory work designed to accompany material presented in PHYS 301. One three-hour laboratory. Prerequisite: PHYS 202 or PHYS 212.

PHYS 321. Recent Progress in Astronomy (2) I. Alternate years. Pulsar dynamics, gravitational collapse and black holes, galaxies, large-scale structure in the universe, active galaxies and quasars, cosmology. Two lecture-recitations. Prerequisites: PHYS 212; or PHYS 202 and one semester of calculus. Not open to students with credit for ASTR 321.

PHYS 350. Musical Acoustics (3) I. Nature of vibration; sound waves, sources of musical sounds — strings, air columns, percussion, voice, noise; acoustics of rooms; recording, reproduction, and synthesis of sound. Not open to student majoring in physical sciences.

PHYS 400. Selected Topics in Physics (1-3) On demand. Selected topics not included in existing courses. Scheduling of course may be initiated by department staff or by students. May be repeated as different subjects are offered. Prerequisite: consent of instructor.

PHYS 401. Methods of Theoretical Physics I (3) I. Systems with more than one variable quantity; basic field theory; systems governed by rate equations; vibrating systems; Lagrangian and Hamiltonian dynamics; Fourier analysis; special functions arising from physical systems. Prerequisites: PHYS 212 and one year of calculus.

PHYS 402. Methods of Theoretical Physics II (3) II. Alternate years. Computational physics with applications of: Laplace's equation, wave and diffusion equations. Complex variable analysis. Rigid body motion and the eigenvalue problem. Prerequisite: PHYS 401.

PHYS 403. Stellar Structure and Evolution (3) I. Alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 and consent of instructor. Not open to students with credit for ASTR 403.

PHYS 406. Modern Optics (4) I. Principles of physical optics and modern spectroscopy; photodetectors; lasers and electro-optics. Three lecture-recitations and one three-hour laboratory. Prerequisite: PHYS 305.

PHYS 410. Solid State Physics (3) II. Alternate years. Continuum and atomic theories of solids, lattice vibrations, specific heat of solids, electron theory of metals and semiconductors. Superconductivity. Three lecture-recitations. Prerequisite: PHYS 307.

PHYS 411. Physics of Materials (3) II. Alternate years. Structure and physical properties of ceramics, composites, and metallurgically important alloys. Principles and methods of modern materials analysis. Three lecture-recitations. Prerequisite: PHYS 307.

PHYS 412. Infrared Molecular Spectra (2) II. Alternate years. Origin of spectra of simple molecules. Prerequisite: PHYS 301 or course in physical chemistry.

PHYS 417. Quantum Mechanics (3) II. Alternate years. Duality of matter and radiation, state functions and interpretation, Heisenberg uncertainty principle, wave equations and principles of wave mechanics, elementary applications of Schrodinger's equation, operator methods, and approximation techniques. Prerequisite: PHYS 401.

PHYS 418. Electricity and Magnetism I (3) I. Alternate years. Electric and magnetic fields; Maxwell's theory of electromagnetic field with applications in propagation, absorption, reflection, transmission of radiation. Prerequisites: PHYS 401 and MATH 233.

PHYS 419. Electricity and Magnetism II (3) II. Alternate years. PHYS 418 continued with applications to guided waves and physical optics. Relativity. Prerequisite: PHYS 418.

PHYS 426. Microcomputer interfacing (3) I. Medium and large scale integrated circuits such as peripheral interface adapters. UARTS, A/D converters are used to interface a microcomputer to the external world of the laboratory. One class period and two three-hour laboratories. Prerequisites: CS 307 and PHYS 212 or 201.

PHYS 429. Selected Topics in Microelectronics (1-3) On demand. An individual, in-depth study of a microelectronic project. Designed to integrate the introductory knowledge gained in PHYS 303 and PHYS 428 into a complete microelectronic system. Arranged. Prerequisites: PHYS 428 and PHYS 303.

PHYS 433. Philosophy and Physics of Space and Time (3) II. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include: Zeno's paradoxes, Green's concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Cross-listed in PHIL.

PHYS 476. Independent Study (1-2) On demand. Introduction to research in physics and astronomy; projects chosen in consultation with adviser, may include library and laboratory work. Prerequisite: consent of instructor.

PHYS 490. Special Problems in Physics (1-3) On demand. Readings and research on recently developing topics chosen to fit needs of students.

Physical Therapy (PHYT)

PHYT 301. Human Gross Anatomy (5) I. Normal and variation of normal human biologic structure of the musculoskeletal, cardiovascular, respiratory and integumentary systems as correlated to function. Laboratory sessions to include cadaver dissection and prosected materials. Three hours of lecture, two two-hour laboratories.

PHYT 304. Principles of Massage (2) I. Theory, rationale, physiological effects and appropriate application of massage. One hour lecture, one two-hour laboratory.

PHYT 305. Human Neuroanatomy and Neurophysiology (4) II. Normal and variation of normal human biologic structure of the central and peripheral nervous systems as correlated with neurophysiological and neuropathological sensory and motor functions and an understanding of pain theories. Laboratory sessions to include cadaver dissection and prosected materials. Three hours of lecture, one two-hour laboratory.

PHYT 309. Functional Anatomy (3) II. Normal and abnormal dynamic human posture through the examination of internal and external forces acting on the body. Three hours of lecture, one two-hour laboratory.

PHYT 310. Research Methods (2) II. Scientific method of problem solving including formulation of a hypothesis, literature search, research design, and methods of data collection and interpretation for the purpose of preparing a manuscript for publication. Three hours of lecture.

PHYT 311. Pathology and Pharmacology I (2) II. Pathogenesis and clinical sequelae of diseases and disorders of bone, joint, and muscle and pharmacology principles of drugs frequently used to treat such conditions. Three hours of lecture.

PHYT 312. Pathology and Pharmacology II (2) I. Pathogenesis and clinical sequelae of diseases and disorders of the cardio-vascular, respiratory, nervous, metabolic, and gastrointestinal systems and the basic principles of drugs frequently used to treat such conditions. Three hours of lecture.

PHYT 321. Physical Therapy Procedures (4) I. Physiological, mechanical, and bioelectrical principles and appropriate technique of application of thermal, high frequency, radiation, traction, and compression modalities used in treating clients. Two hours of lecture, two two-hour laboratories.

PHYT 326. Applied Medical Sciences (2) II. Clinical course and treatment of medical, surgical, and psychiatric disorders with emphasis on conditions frequently treated in physical therapy. Two two-hour lectures and care presentations by physicians of various medical specialties.

PHYT 331. Therapeutic Exercise I (4) I. Kinds of exercises and muscle contraction and principles of body mechanics in client movement activities. Assessment of motor, sensory, joint and level of client functional activities are included. Two hours of lecture, two two-hour laboratories.

PHYT 381. Clinical Practicum I (2) II. Observation and orientation to physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Three hours, Tues. and Thurs. afternoons, arranged. Graded S/U.

PHYT 401. Human Growth and Development (3) I. Eight stages of human life with emphasis on common pediatric neurological disorders and developmental dysfunction; includes developmental assessment and an understanding of the interrelationship of physical, perceptual, motor, social, and cultural factors. Three hours of lecture and one two-hour laboratory.

PHYT 402. Electrophysiological Assessment and Treatment (2) II. Theory and application of electrical currents in assessment and treatment of neuromuscular disorders. Two hours of lecture, one two-hour laboratory.

PHYT 403. Evaluation and Rehabilitation Principles and Techniques Applied (4) II. Theories, philosophies, and principles or rehabilitation of the chronically disabled using case study approach to design a physical therapy plan of care. Two hours of lecture, two two-hour laboratories.

PHYT 404. Orthopaedic and Sports Trauma (5) I. Philosophy, theory, and principles of assessment of joint dysfunction and mobilization of the peripheral joints. Incidence, biomechanical analysis and method of determining severity of sports trauma to the trunk and extremities and the application of bandaging and adhesive strapping. Three hours of lecture, two two-hour laboratories.

PHYT 406. Physical Therapy Trends and Management (2) II. Development and organization of the professional association and its relation with other health care participants in the operation of a physical therapy service. Four hours of lecture.

PHYT 411. Prosthetics and Orthotics (2) I. Orientation to management of the amputee and principles of functional bracing. Three hours of lecture.

PHYT 421. Cardiopulmonary Physical Therapy (3) I. Principles of evaluation and the application of therapeutic principals to pathological disorders of the cardiopulmonary systems. Two hours of lecture, one two-hour laboratory.

PHYT 431. Therapeutic Exercise II (4) II. History, development and neurophysiological application of therapeutic exercise to clients with neuromuscular disorders. Two hours of lecture, two three-hour laboratories.

PHYT 470. Physical Therapy Research Project (2) II. Clinically related case study or research project. Consent of faculty member required. Independent study.

PHYT 481. Clinical Practicum II (2) I. Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Nine hours/week, Mon., Wed., Fri. afternoons, arranged. Graded S/U.

PHYT 482. Clinical Practicum III (2) II. Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Twelve hours/week, Mon., Wed., Fri. mornings, arranged. Graded S/U.

PHYT 489. Clinical Internship (10) Summer. Observation and orientation of physical therapy departments including patient care, treatment procedures, and patient/therapist relationships. Two rotations of six weeks duration, 40 hours/week, arranged. Graded S/U.

Political Science (POLS)

◆ **POLS 101. Introduction to Politics** (3) I, II. Fundamental concepts and problems of politics illustrated with contemporary examples; comparison of modern political institutions in different cultures. Restricted to freshmen and sophomores.

◆ **POLS 201. American Government: Processes and Structure** (3) I, II. Constitutional basis and development, political processes (parties, nominations and elections, interest groups, public opinion), federalism, and institutions of national government.

POLS 221. Introduction to Public Administration (3) I, II. American administrative system: emphasis on administrative structures and processes; relationship between elected offices and bureaucracy, notion of civil service, modes of managing administrative system.

POLS 250. Human Nature and Politics (3) II. Contemporary and historical perspectives of what man is and can be in relationship to systematic thought about politics. Fundamentals of critical thought and analysis of political controversies. Designed for general students and for those considering political theory as a field.

POLS 271. Introduction to Comparative Government/International Relations (3) I, II. Basic concepts, approaches to, and comparisons of foreign political systems, including political cultures, participation, interest groups, institutions, and processes; essential tools and methods of analysis for the study of foreign governments and international relations.

◆ **POLS 290. Introduction to Political Inquiry** (3) I, II. Concepts and theories used by political scientists; traditional and behavioral-political science; how political scientists establish and evaluate concepts and theories. Required of all majors; should be taken before any 300-level course. Nonmajors must receive permission of instructor.

POLS 301. Modern Political Ideologies (3) I, II. Nature of political power, freedom, authority, and terrorism as seen in ideologies of democracy, capitalism, liberalism, conservatism, communism, anarchism, socialism, and fascism.

POLS 302. American Domestic Policy Process (3) I, II. Theories of public policy process; models of decision-making analysis; contemporary American domestic policy issues.

◆ **POLS 304. American Political Thought** (3) II. As reflected in colonial, Federalist, Civil War, and late 19th century political thought.

POLS 330. Urban Management (3) I. Urban problems, focus on available policy alternatives and administrative mechanisms; options in terms of efficiency/effectiveness criteria.

◆ **POLS 331. State and Local Government** (3) I, II. Influence of culture and socioeconomic factors on state-local politics; state constitutions, municipal corporations and charters; political participation; institutions and processes; intergovernmental relations; policy issues and outcomes in state/local government with special reference to Ohio.

POLS 333. Politics, Science and Public Policy (3) I. Impact of politics and science in making national science policy. Politics of science, science and its use in making public policy, role of science and technology in American and other industrial countries.

POLS 334. Health and Medical Policy (3) II. Policies, issues, process involved in formulation and implementation of health care. Politics of delivery of health care, insurance programs, medical funding, human experimentation.

POLS 335. Energy Politics (3) I. Energy-related problems at the global, national and local levels for policymakers and citizens concerned about supply, price, efficiency, security and resource wars.

POLS 336. Environmental Politics and Policies (3) II. Environmental issues, groups; establishing, implementing, evaluating key environmental policies.

POLS 337. Food Resource Politics (3) II. How domestic and international political processes affect American food production and consumption through governmental legislation, agency regulation, and international agreement in interdependent world.

POLS 341. Public Opinion (3) I. Processes of opinion formation and change, political attitudes, belief systems, socialization, and the operation of public opinion processes in democracy; models of linkages between public opinion and public policies.

POLS 342. Mass Media and Public Policy (3) II. Relationship between media and government in reporting public policy issues; secrecy in government, bias and distortion in news media.

POLS 345. Legislative Process (3) II. Legislative behavior and decision making; forces involved in formation of public policy; proposed reforms of Congress. Prerequisite: POLS 101 or POLS 201 or consent of instructor.

POLS 346. Presidency and Executive Process (3) I. Organization, functions, and powers of office of president and vice president; roles and presidential leadership psychology.

POLS 347. Judicial Process (3) I. American judiciary, particularly Supreme Court, as political institution; decision-making process and interaction of courts with rest of political system.

POLS 351. Western European Politics (3) II. Political systems and major policy problems of selected European countries. Political culture, governmental structures, political parties, and interest group roles in policy development.

POLS 354. Governments of Soviet Union and Eastern Europe (3) I. Governmental structures and ideological forces controlling the political systems and socio-economic life within the Soviet Union and its satellite countries of Eastern Europe. Mission and expansion of Soviet influence beyond its borders.

POLS 355. Governments and Politics of Latin America (3) I. Influence of cultural and socio-economic factors on politics; role of major interest groups such as the military, labor, the Catholic Church; political parties and elections; institutions; policy development in selected nation-states.

POLS 361. Governments and Politics of Middle East (3) I. Governmental and political processes of Turkey, Iran, Israel, Arab Republic of Egypt, other selected Middle Eastern and North African political systems; major developmental problems of the area.

POLS 366. Governments and Politics of Asia (3) II. Representative contemporary Far Eastern and Southeast Asian political systems; how ideology, religion, militarism and other social forces (both endogenous and exogenous) have influenced the development of these polities.

POLS 368. African Political Systems (3) II. African struggles for independence; problems of development of selected post-independence political systems and guerrilla movements in non-independent territories.

POLS 371. Introduction to World Politics (3) I. Contending approaches and paradigms in the study of inter-state behavior and relations; includes examination of the evolution and significance on non-state actors in the international political arena.

POLS 372. Contemporary World Politics (3) II. Current global issues and problems such as the arms race, population control, disarmament and East-West, North-South rivalries will constitute the foci of discussion and analysis.

POLS 374. American Foreign Policy Process (3) I, II. Nature and conduct of contemporary U.S. foreign policy, with particular emphasis on the roles that the Executive and Legislative branches play in the process. Secondary foci of analysis are: how domestic political problems, interest groups, military alliances, technological and economic forces help shape foreign policy formation and articulation.

POLS 395. Workshop on Current Topics (1-4) On demand. Intensive educational experience on such selected topics as government public information work (agencies, departments, executive and legislative office), and other state, local, national, and international political affairs. May be repeated if topics differ, on approval of adviser.

POLS 400. Topics in Political Science (1-3) I, II. On demand. Subject matter varies. New, one-time courses being offered experimentally. See quarterly schedule for listing. Prerequisite: POLS 101 or POLS 201.

POLS 402. Western Political Thought I (3) I. Classics of political philosophy of ancient and medieval period. Major ideas and concepts of western political tradition from Plato through Middle Ages to Machiavelli.

POLS 403. Western Political Thought II (3) II. Classics of political philosophy of modern period. Major ideas and concepts of Western political tradition from Hobbes to Marx.

POLS 404. 20th Century Political Thought (3) I or II. Contemporary classics of political philosophy. Theories of justice and right of Rawls, Nozick, Hayek, and Strauss; Berlin's pluralism; existentialism; and/or democratic theory.

POLS 405. Recent American Political Thought (3) II. American political ideas, ideologies, movements with fundamental social and political philosophies from Civil War to contemporary period. Prerequisite: POLS 304 or consent of instructor.

◆ **POLS 416. Constitutional Law: Powers and Relationships** (3) I. Supreme Court cases relating to U.S. governmental structure, powers, and relationships.

POLS 417. Constitutional Law: Procedural Rights (3) I. Due process, right to counsel, search and seizure, electronic surveillance, jury trial.

POLS 418. Constitutional Law: Substantive Rights (3) II. Freedom of speech, press, and religion; equal protection of law, travel and privacy; right to vote.

POLS 419. Jurisprudence (3) II. Leading theories and theorists of law; Anglo-American thought and practice.

POLS 420. Administrative Law (3) I. Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision making. Emphasis on the limitation of administrative discretion and the judicial review of administrative decisions. Prerequisite: consent of instructor.

POLS 420. Administrative Law (3) I. Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision making. Emphasis on the limitation of administrative discretion and the judicial review of administrative decisions. Prerequisite: consent of instructor.

POLS 421. Bureaucratic Politics (3) II. The role federal bureaucracy plays in public policy process, Policy development; social and political factors that influence the administrative branch of government.

POLS 422. Survey of Public Administration (3) I. Fundamental literature, concepts and practices in public administration, including the discussion of administrative leadership, decision making, communication, fiscal and personnel management aspects of public administration. Prerequisite: consent of instructor.

POLS 423. Comparative Public Administration (3) II. Comparative study of administrative structures and processes in selected modern and modernizing political systems. Analysis includes the consideration of cultural, legal and political factors influencing the operation of bureaucratic institutions, developmental goals, and the methods of establishing and administering programs of social, economic and political development.

POLS 424. Supreme Court and Contemporary Issues (3) II. Alternate years. Selected areas of current concern in constitutional law, substantive knowledge of relevant case law, scholarly legal journals which attempt to predict outcome of future constitutional litigation. Prerequisite: POLS 417 or POLS 418.

POLS 425. Constitutional Law Advocacy (3) II. Substantive knowledge of one area in constitutional law; practical skills necessary for constitutional adjudication; techniques of legal research, writing appellate court briefs, and appellate court advocacy. Prerequisites: POLS 416 and POLS 417, or POLS 418 and permission of instructor.

POLS 430. Politics of Metropolitan Areas (3) Summer. Socio-economic and political factors affecting the governance of metropolitan areas with an emphasis on politico-administrative institutions, processes, and the major policy issues and their consequences for the management of metropolitan affairs.

POLS 431. Regulatory Policy (3) II. Development of regulation as instrument for correcting deficiencies of economic market, role in achieving societal purposes, problems of regulatory practice.

POLS 434. Sexual Politics (3) I. Socialization to, maintenance of, and change in gender political roles; patterns of dominance and submission in cross-cultural perspective.

POLS 440. Political Parties and Voter Behavior (3) II. Democracy and political parties, party organization, primaries and conventions for nomination, campaigns and elections, patterns of election participation and factors affecting the voter's decision making.

POLS 443. Mass Media in Politics (3) I. Techniques of modern election campaigns, management; use of research and voter profiles in developing strategy; tactics of mass persuasion; professional public relations in television and the electronic media.

POLS 452. Political Violence and Revolution (3) II. Seminar offered alternate years. Theories about causes, processes, and consequences of violence as instrument of political competition and social change. Open to advanced social science undergraduate and graduate students or by consent of instructor.

POLS 454. Soviet Political System and Institutional Development (3) III. Historical, cultural and ideological forces that have shaped and will continue to shape the development of Soviet political institutions, including: traditional charismatic, and rational-legal authority structures; Marxism as a westernizing/modernizing factor; the Russification of Marxism; Russia under the old regime; Rise of a bureaucratic "class"; socialist legality and paternalism.

POLS 458. Soviet Foreign Policy (3) II. Soviet foreign policy in post-war era; domestic and international determinants and consequences for Soviet-Western relations, socialist bloc, and third world.

POLS 459. Intergovernmental Relations (3) On demand. Public policy issues and interaction with levels of government in American federal system. Dynamics of intergovernmental relations, grant-in-aid, revenue sharing, and federal relationships.

POLS 460. Politics and Issues of World Development (3) II. Political and economic modernization problems of the developing countries with focus on issues of stability yet with equitable development and social justice within these nations and cross-national issues such as foreign aid, nuclear technology transfer, women in development, population explosion, and other selected topics.

POLS 470. Individual Readings (1-3) I, II. On demand. Supervised individual readings to meet student's need for extended reading in familiar areas or for exploration in fields not covered by courses. Prerequisite: consent of supervising instructor. May be repeated to nine hours.

POLS 473. International Law (3) On demand. History, nature, sources, and applications; relationship between law and society at international level.

POLS 475. International Organization (3) On demand. Major problems facing United Nations and other international organizations.

POLS 491. Seminar for Intern (3). Required for students planning internships. Survey and analysis of literature dealing with practice political experiences. Use of biographical material as sources.

POLS 492. Field Study (1-3) I, II, summer. For students working on political internship programs and political campaigns. May be repeated to six hours.

Popular Culture (POPC)

◆ **POPC 160. Introduction to Popular Culture** (3) I, II, summer. Basic theories of, approaches to, and topics within popular culture; several selected topics and use of various theories and approaches.

◆ **POPC 165. Popular Culture and Media** (3) I, II, summer. Some of the ways in which mass media (TV, film, recording industry, print, radio) have affected modern American culture. Media relationships and interactions.

◆ **POPC 220. Introduction to Folklore and Folklife** (3) I, II, summer. Study and collecting of folklore; ballads, myths, tall tales, heroes, folk medicines, superstitions; proverbs, arts, and crafts.

POPC 231. Studies in Popular Culture (1-3) I, II, summer. Study of theme, era, or problem of popular culture. Subject matter designated in class schedule. May be repeated once if topics are different.

POPC 240. History of Popular Culture (3) I, II, summer. From classical world to present; relationship between society and its popular culture; constant needs of man such as play, sex, ritual, etc.; changing needs of man in changing society.

◆ **POPC 250. Introduction to Popular Film** (3) I, II, summer. Popular film as mass entertainment medium; Hollywood studios, popular film formulae, genres, relationships between popular films and movie-going audience; viewing of appropriate films.

POPC 270. Introduction to Contemporary Popular Literature (3) I, II, summer. Popular literary formulae, publishing industry, relationship between popular literature and reading public, functions of popular literature in society.

POPC 280. Introduction to Popular Music (3) Relationship between music world and listening-viewing audience; musical styles, trends in popular music, popular performers and entertainers and what they reveal about popular culture; appropriate music listening.

POPC 290. Television as Popular Culture (3) I, II, summer. Relationship between popular television programming and American society; viewing of appropriate television.

POPC 350. Advanced Studies in Popular Film (3) I. In-depth study of particular aspect of popular film: single genre, particular director, specific studio, etc. May be repeated once if topics are different; viewing of appropriate films. Two-hour lecture, two-hour lab.

POPC 355. Studies in History of American Popular Film (3) II. Specific period in American popular film: silent era, films of Depression, films of post World War II, etc. May be repeated once if topics are different; viewing of appropriate films. Two-hour lecture, two-hour lab.

POPC 370. History of Popular Literature (3). Alternate years. Detective, science fiction, western, mystery, best sellers, poetry, magazine fiction. Prerequisite: any 200-level literature course or permission of instructor.

POPC 380. Contexts of Popular Music (3) I, II, summer. In-depth investigation into single aspect of popular music: specific popular music genres, specific musical themes, popular music industry, etc. May be repeated to eight hours if topics differ. Prerequisite: POPC 280.

POPC 390. Electric Media (3). Alternate years. Cultural media theory as related to aural and visual electric media, especially radio and television. Impact of these media on contemporary culture. Prerequisite: one course in mass media or permission of instructor.

POPC 395. Workshop on Current Topics (1-3). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within expanded time format. May be repeated if topics differ, on approval of adviser.

◆ **POPC 424. Topics in Folklore** (3) II, summer. In-depth study of single topic. May be repeated once if topics are clearly different. Prerequisite: POPC 220 or permission of instructor.

POPC 426. Popular Entertainments (3). Alternate years. Cultural significance of popular entertainments, past and present; circuses, carnivals, parades, vaudeville, professional and amateur sports, camping, etc. Prerequisite: POPC 160 or POPC 165.

POPC 460. Popular Culture Advanced Studies (3) II, summer. In-depth study of particular problem: development of hero in popular arts, cultural analysis of popular film, cultural analysis of popular music, etc. May be repeated once if subject matter is different. Prerequisite: POPC 165.

POPC 480. Senior Seminar in Popular Culture (2) Alternate years. Interdepartmental seminar for seniors in POPC program. Selected topics approached from several points of view. Prerequisites: senior standing and major in POPC or in discipline represented in POPC program.

POPC 490. Problems in Popular Culture (1-3). For advanced student. Independent study. Prerequisite: consent of director of POPC program to proposal approved by staff member three weeks prior to end of quarter; and 6 hours POPC courses. May be repeated to eight hours.

Psychology (PSYC)

◆ **PSYC 201. General Psychology** (4) I, II, summer. Scientific approaches to the study of behavior of organisms. Application to personal and social behavior. Open to freshmen psychology majors.

PSYC 231. Research Methods in Psychology (4) I, II. Experimental and non-experimental techniques for investigating psychological phenomena. For non-psychology majors. Three lecture hours; two laboratory hours. Prerequisite: PSYC 201.

PSYC 240. General Seminar (1-3) I, II. Specific content areas offered depends on demand and interest of staff. May be repeated twice. Prerequisite: consent of instructor.

PSYC 270. Quantitative Methods I (3) I, II, summer. Principles of measurement. Quantitative analyses of behavioral measures, including measures of typicality, individual differences, correlational methods and tests of significance. Two one-hour lectures and a two-hour lab. Prerequisite: PSYC 201 or consent of instructor.

PSYC 290. Introduction to Laboratory Methods in Psychology (4) I, II. Introduction to research methods used in laboratory and natural settings. Includes planning the research, collecting and interpreting the data, and communicating the results in both oral and written forms. Three one-hour lectures and one two-hour laboratory. Prerequisites: PSYC 201 and 270.

PSYC 301. Brain Mechanisms of Behavior (4) I, II. Brain structure and function in organization of consciousness, perception, motivation and learning, sleep, dreaming, memory, drugs, glands, personality, electrical stimulation of brain. Laboratory hours by arrangement. Prerequisites: PSYC 201 and 290, or consent of instructor.

PSYC 302. Educational Psychology (3) I, II. (See EDFI 302) Concepts and factors affecting application of psychological principles to the educative process. No credit for both EDFI and PSYC 302. Prerequisite: PSYC 201.

◆ **PSYC 303. Psychology of Child Development** (3) I, II. Major concepts, theories, and principles of child development. Coverage is from conception until adolescence. Prerequisite: PSYC 201.

PSYC 304. Adolescent Development (2) II. Major concepts, theories, and principles of adolescent development. Prerequisite: PSYC 201.

◆ **PSYC 305. Psychology of Personality Adjustment** (2) I, II, summer. Problems of personal adjustment. Related problems of theory and measurement of personality. Prerequisite: PSYC 201.

◆ **PSYC 306. Psychology of Gender** (3) I. Psychological characteristics of women and men: personality, adjustment, identity formation, intellectual processes, sexuality; theories and data on gender development.

◆ **PSYC 307. Psychology of Human Sexuality** (3) I, II, summer. Sexual physiology, psychosocial aspects of sexual behavior, sexual dysfunction and therapy, comparative sexual behavior.

PSYC 308. Introduction to Clinical Psychology (3) II. Models and roles associated with delivery of mental health services; major conceptions of psychological assessment and treatment. Prerequisite: PSYC 201.

PSYC 309. Psychology of Aging (3) II.

Discussion of major theories of adult development; description of how biological, cognitive, personality, and social-psychological processes interact to produce development; emphasis on seeing how these processes occur in adults' everyday lives. Prerequisite: PSYC 201.

◆ **PSYC 311. Social Psychology (3) I, II,**

summer. Social behavior covering theoretical issues and recent empirical findings: social influence and conformity processes, attitudes and attitude change, interpersonal attraction, social perception, group processes, sexual behavior, environmental influences on social behavior. Prerequisite: PSYC 201 or SOC 101.

PSYC 312. Principles of Social Interaction

(2) II. Theoretical issues and recent empirical findings: animal social behavior, pro-social behavior, aggression, group processes, social exchange processes, and social psychology in changing world. Prerequisite: PSYC 201 or SOC 101.

PSYC 313. Research in Social Psychology

(4) II. Field and laboratory research techniques in social psychology, attitude change, conformity, attraction, environmental effects on social behavior, aggression, group processes. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270, 290 and 311.

PSYC 320. Conditioning (4) I. Classical conditioning and instrumental learning from empirical and theoretical point of view. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

PSYC 321. Human Learning and Memory

(4) I, II. Principles and theories of human learning and memory, applied to the acquisition of knowledge and skills. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

PSYC 322. Psychology of Thinking (4) I, II.

Theory and research on the nature of human thinking, problem solving, reasoning, concept formation, and language. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

PSYC 324. American Sign Language of Deaf (3) I, II.

Basic vocabulary and grammatical structure of the visual language system used by deaf persons in North America. Implications of deafness for language and communication, psycho-linguistic studies of Sign.

PSYC 328. Psychophysiology (4) I, II.

Laboratory course in psychophysiology; relationship between psychological states and physiological responses in humans; conditioning of autonomic responses, orienting responses, psychosomatic relationships and biofeedback, detection of deception. Four lecture hours, laboratory by arrangement. Prerequisites: PSYC 270 and 290.

PSYC 330. Psychobiology of Emotions and Motivation (4) II.

Biological causes of motivated behaviors such as sleep, hunger, thirst, fear, aggression, and sexual behavior; how motivated behaviors and related emotional states are organized in brain, as elucidated by electrical and chemical stimulation and ablation of living brain. Prerequisites: PSYC 270 and 290, or consent of instructor.

PSYC 340. Sensation and Perception (4) II.

Measurement, development and neurophysiological mechanisms of sensory and perceptual processes. Emphasis on vision and hearing. Three lecture hours; two laboratory hours. Prerequisites: PSYC 270 and 290.

◆ **PSYC 352. Quality of Work Life (4) II.**

Impact of organizational environments on individuals and individual behavior. Topics include job design, leadership, organizational climate, job satisfaction and work motivation. Prerequisite: PSYC 270 or consent of instructor.

PSYC 354. Assessment of Work Effectiveness (3) II.

Emphasis on the design, measurement, and evaluation of human and machine performance and productivity. Assessment of factors related to training, efficiency, and safety. Prerequisites: PSYC 270 and one other course in PSYC, or consent of instructor.

PSYC 370. Quantitative Methods II (3) I, II.

Analysis of variance and other multi-variate methods for analyzing behavioral measurements. Prerequisite: PSYC 270.

PSYC 395. Workshop on Current Topics

(1-5) On demand. Intensive educational experience on selected topics. Typically an all-day or similar concentrated format. Requirements usually completed within time format. May be repeated on approval of adviser.

PSYC 401. History of Psychology (3) I.

Selected topics, reading of original sources. Psychopathology, animal psychology, behaviorism, cognitive psychology, personality theory, others. Prerequisite: PSYC 201 or consent of instructor.

PSYC 403. Personality Theory (3) II.

Scientific constructs in personality theory; contemporary theories with historical antecedents; assessment of relationship to general psychology. Prerequisite: eight hours in PSYC.

◆ **PSYC 405. Psychology of Abnormal Behavior (3) I, II,**

summer. Data and concepts used in understanding, labeling, and modifying deviant behavior. Prerequisite: PSYC 201.

PSYC 406. Behavior Pathology in Children

(3) II. Major behavioral disorders of childhood: description, etiological implications, treatment issues, approaches and problems, and related research. Prerequisite: PSYC 201 or consent of instructor.

PSYC 421. Psychology of Language (3) II.

Theoretical and empirical issues in psycholinguistics, speech perception, and language development. Prerequisite: PSYC 201 or consent of instructor.

PSYC 425. Community Mental Health (3) I,

summer. Development, concepts and current models in community mental health; individual and system-centered approaches that promote health and prevent psychological maladjustment; federal, state, and county programs. Prerequisite: PSYC 201 or consent of instructor.

PSYC 431. Mental Health Worker Training (4)

I. One of two prerequisites for field placement as mental health worker, taken simultaneously with PSYC 432. Relationship enhancement and behavioral analysis and intervention skills. Field experiences. Prerequisites: PSYC 201 and consent of instructor.

PSYC 432. Principles of Mental Health Work

(4) I. Exposure to models and roles associated with delivery of mental health services. Participation with practicing clinical "team"; field experiences. Prerequisites: PSYC 201 and consent of instructor.

PSYC 433. Mental Health Worker Practicum I

(3) II. Students engage in those mental health activities they trained for during previous quarter. Includes placement in one of variety of mental health settings. Prerequisites: PSYC 431 and 432 and consent of instructor.

PSYC 434. Mental Health Worker Practicum II

(4) II. Field experience for mental health worker. Student increases experience with broad range of mental health problems working in community mental health setting. Case study presentation. Prerequisites: PSYC 431 and 432 and consent of instructor.

PSYC 437. Field Study: Deafness and ASL

(1) I. Orientation to deafness and on-site observation of educational approaches and communication methods used at elementary, secondary, and post-secondary levels by programs for deaf children. Conducted at Gallaudet College, Washington, D.C., between semesters. Prerequisites: PSYC 324 or equivalent and consent of instructor.

PSYC 440. General Seminar (1-4) I, II,

summer. Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor.

◆ **PSYC 452. Personnel Selection (4) I.**

Methods of selection and assessment in industrial and other organizations. Includes recruitment, hiring, promotion, etc. Compliance with fair employment and equal employment opportunity regulations. Prerequisite: PSYC 201.

PSYC 454. Interviewing (3) II.

Laboratory exercises in administering and responding to interviews differing in structure, behavior, decisions, and interrelationships within interviews, validity and reduction of bias. Prerequisite: PSYC 201.

PSYC 455. Stress Factors of Work (3) I.

Sources and effects of psychological stress at work and research on stress reduction. Topics include perceived work loads, role demands and ambiguities, job involvement, and career stresses such as those in dual-career families.

PSYC 460. Introduction to Psychological Testing (3) I, II.

Theory and methods of measuring human behavior. Basic measurement principles and applications; representative standardized tests of intelligence, interest, aptitude and personality. Prerequisites: PSYC 201 and 270 or equivalent.

PSYC 490. Special Problems in Psychology

(1-3) I, II, summer. Supervised independent minor research or intensive reading on selected problems. No student may register for course without written approval of staff member concerned. May be repeated to six hours.

PSYC 495. Senior Honors Seminar (3) I.

Seminar in general psychology for senior major. Student required to plan and carry out research project under direction of faculty member. Prerequisite: senior major, approval by department undergraduate committee.

PSYC 496. Senior Honors Seminar (3) II.

Seminar in general psychology for senior major. Student required to plan and carry out research project under direction of faculty member. Prerequisite: senior major, approval by department undergraduate committee.

Radio -- Television -- Film (RTVF)

(See speech communication)

Recreation and Dance (RED)

(See health, physical education and recreation)

Rehabilitation Counseling (REHB)

REHB 401. Introduction to Rehabilitation Services (3). Characteristics and principles of the rehabilitation process; Disabilities and agencies serving the disabled.

Romance Languages (ROML)

ROML 200. European and Latin American Cinema (3). Films of cultural and literary significance from Mediterranean and Latin American countries seen through study of selected topics, themes, or movements. Taught in English. Includes viewing of films with subtitles.

ROML 262. African Literature in Translation (3). Literary masterpieces from or about Africa, including negritude movement. Works originally written in romance languages. Does not count toward French or Spanish major or minor.

ROML 470. Readings in Romance Languages and Literature (1-3). Independent reading for advanced students wishing to conduct comparative study in particular period, author or authors, problem, or genre. Prerequisites: consent of chair of department and instructor.

Russian (RUSN)

Entering students who had Russian in high school should take the placement test during summer preregistration or prior to enrollment in a course.

RUSN 100. Introduction to Language Study: Russian (1). On demand. Lecture-reading course in English introducing students to the cultural development of the Russian language.

RUSN 101. Elementary Language and Culture I (4) I. Cultural approach to beginning language study in the four skills: listening, speaking, reading, writing. Four class periods and laboratory practice each week.

RUSN 102. Elementary Language and Culture II (4) II. RUSN 101 continued. Four class periods and laboratory practice each week. Prerequisite: RUSN 101, or by placement.

RUSN 201. Intermediate Russian I (3) I. RUSN 101-102 continued. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: RUSN 102, or by placement.

RUSN 202. Intermediate Russian II (3) II. RUSN 201 continued. Three class periods and laboratory practice each week. Prerequisite: RUSN 201, or by placement.

RUSN 303. Introduction to Scientific Russian (2) II. Reading and grammar designed for science-oriented students who wish to develop an effective reading knowledge of scientific Russian. Prerequisite: RUSN 202.

RUSN 311. Russian Literature: From Beginnings to Dostoevsky (3) I. Literary trends from 11th to mid-19th century; medieval and baroque periods, 18th century classicism and sentimentalism, and the Golden Age. Writers include Pushkin, Gogol, Goncharov, Lermontov, and Turgenev. Lectures in English. Open to nonmajors who will read assigned works in translation.

RUSN 312. Russian Literature from Dostoevsky to Present (3) II. Social, political and cultural trends of pre- and post-revolutionary periods. Writers include Dostoevsky, Tolstoy, Chekhov, Gorki, Zoshchenko, Bulgakov, Pasternak and Solzhenitsyn. Lectures in English. Open to nonmajors who will read assigned works in translation.

RUSN 315. Russian Culture (3) II. Culture and civilization of the Russian people from their origins to the recent past. Lectures, audio-visual presentations and readings in English.

RUSN 316. Readings in Russian Culture (2) On demand. Language, syntax and topics of academic and literary Russian in the natural sciences, social sciences and humanities. Prerequisite: RUSN 202.

RUSN 317. Composition and Conversation I (3) I. Intensive oral and written practice; emphasis on mastery of basic structural patterns employed in conversation and writing. Prerequisite: RUSN 202, or by placement.

RUSN 318. Composition and Conversation II (3) II. RUSN 317 continued. Prerequisite: RUSN 317.

RUSN 319. Journalistic Russian (2). On demand. Practice in the language and syntax on contemporary Russian journalism; expository prose, newspapers, journals, monographs, magazines, etc. Prerequisite: RUSN 202.

RUSN 331. Workshop in Translation (1-3). On demand. Individualized and/or small group work in translation of scientific, technical or business writing, or other types of expository prose in the student's area of specialty. May be repeated to six hours. Prerequisite: RUSN 202.

RUSN 401. Russian Poetry (3). On demand. Russian lyric from the mid-18th century through contemporary Soviet verse. Prerequisite: RUSN 202.

RUSN 402. Russian Novel (3) I. Detailed study of the great tradition of the Russian novel. Primary readings consist of authors such as Karamzin, Pushkin, Gogol, Turgenev, Tolstoy, Dostoyevsky, Gorky, Solzhenitsyn. May be repeated for credit when offered with different content. Prerequisites: RUSN 311 and 312, or permission of instructor. Open to nonmajors who will read assigned works in translation.

RUSN 403. Russian Drama (3) II. Major works of Russian dramatic literature as exemplified by Polotski, Fonvizin, Griboyedov, Pushkin, Ostrovski, Turgenev, Tolstoy; emphasis on Chekhov and Moderns. Prerequisites: RUSN 311 and 312, or permission of instructor. Open to nonmajors who will read assigned works in translation.

RUSN 415. Cultural and Literary Aspects of Soviet Film (3). On demand. Soviet film both as visualization of Russian literature and as instrument of social and political persuasion through various esthetics – expressionism, socialist realism, psychological realism.

RUSN 417. Advanced Composition and Conversation (3). On demand. Development of increased facility in written composition and the spoken language. Grammatical structure and levels of style in writing and colloquial idiom in spoken dialogue. Prerequisite: RUSN 318.

RUSN 432. Russian Folklore (3). On demand. Survey of major genres of Russian folk literature and culture, and their influence on language and literature. Prerequisite: RUSN 102, or permission of instructor. Open to nonmajors who will read assigned works in translation.

RUSN 480. Selected Topics (2). On demand. Topic chosen to meet curriculum needs and student requests. May be repeated to six hours. Prerequisite: RUSN 202.

RUSN 491. Selected Topics (2). On demand. Independent reading for the advanced student. Prerequisite: arrangement with instructor and consent of department chair prior to registration.

Social Science (SOSC)

†**SOSC 101. Introduction to the Social Sciences** (3) I, II. Fundamental concepts and methods in the social sciences.

†**SOSC 289. Human Services Practicum** (3-4) II. Supervised field experience in an approved agency combined with a seminar designed to integrate theory and practice. Capstone course to the human services curriculum.

Social Work (SOWK)

◆**SOWK 110. Survey of Social Services** (2) I, II, summer. Social service programs; functions of social workers within these programs.

SOWK 220. Observation and Interviewing in Social Work (3) I, II. Development of observational, interviewing and recording skills through classroom experiences and volunteer experiences in community social agencies. Prerequisite: SOWK 110.

SOWK 225. Human Behavior and the Social Environment (2) I, II. Impact of biological, psychological, and socio-cultural systems on human development and behavior. Prerequisite: junior standing.

SOWK 227. Social Work: Ethnic Perspective (3) I, II. Issues and concepts important to understanding problems surrounding ethnicity and relationship to social work. Prerequisite: sophomore standing.

SOWK 321. Social Welfare Institutions (3) I. Social welfare as social institution; history, developmental forces, value systems, relationships between, and various roles of public and private agencies. Prerequisite: SOWK 220.

SOWK 322. Social Policy and Social Services (3) II. Social problems, social policy, and social services as interrelated areas. Basic models for evaluating and influencing social policy. Prerequisite: SOWK 321.

SOWK 325. Social Work Practice I (3) I, II. Components of generic social work practice; problem identification, selection of interventive techniques, development of skills. Prerequisites: SOWK 321, junior standing, and social work major.

SOWK 326. Social Work Practice II (3) I, II, summer. Social work practice models, strategies for community organization and change. Prerequisites: SOWK 325, junior standing, and social work major.

SOWK 330. Rural Social Work Assessment (3) I, summer. Issues involved in rural social work practice. Visitation of selected rural agencies, assessment of needs and services in selected agencies. Prerequisites: SOWK 220 and permission of instructor.

SOWK 332. Law for Social Workers (3) I. Legal issues related to social work; court procedure, crime, poverty, income maintenance, and family law. Prerequisite: junior standing.

SOWK 400. Topics in Social Work (1-3). On demand. Courses being considered for offering on regular basis. May be repeated.

SOWK 423. Field Instruction I (6) I, II, summer. Experience working in selected social agency under supervision. Emphasis on practice rather than observation. Weekly seminar required. Application deadline: May 15 of school year before placement. Prerequisites: senior standing, social work major, and 2.5 GPA in core courses. Graded S/U.

SOWK 424. Field Instruction II (6) I, II, summer. SOWK 423 continued. Student works in selected social agency under supervision. Further development of practice skills. Taken concurrently with SOWK 423. Prerequisites: senior standing, social work major, and 2.5 GPA in core courses. Graded S/U.

SOWK 470. Independent Study (1-3) I, II, summer. Student designs and carries out study or special project in area of interest. Prerequisite: junior standing, social work major, faculty sponsor, and permission of program director. May be repeated up to six hours.

Sociology (SOC)

◆ **SOC 101. Principles of Sociology** (3) I, II, summer. Elements and concepts of social organization, social change, and group relationships.

◆ **SOC 202. Social Problems** (3) I, II, summer. Sociological analysis of contemporary social problems. Prerequisite: SOC 101.

◆ **SOC 210. Sociology of Religion** (3). Role of religion in society; influence of religion upon society and effects of social structure on religious beliefs. Prerequisite: SOC 101.

◆ **SOC 231. Cultural Anthropology** (3). Basic concepts and objectives in study of culture. Range of cultural phenomena and approaches to their study.

SOC 300. Topics in Sociology (1-3). On demand. Courses being considered for offering on regular basis. See class schedule for listing. May be repeated. Prerequisite: SOC 101.

◆ **SOC 301. Social Psychology** (3). Social behavior; process of interaction and interpersonal influence. Prerequisites: SOC 101 and PSYC 201.

SOC 302. Introduction to Classical Sociological Theory (3). Major theories and concepts of sociology. Prerequisite: SOC 101.

SOC 303. Introduction to Contemporary Sociological Theory (3). Concepts and frames of reference of major contemporary theories. Prerequisite: SOC 101.

SOC 311. Community and Urban Sociology (3). Communal life from beginnings in folk society, contemporary urban-metropolitan communities, folk urban contrasts, and community types. Prerequisite: SOC 101.

SOC 312. Population and Society (3). Population growth and distribution; bearing on current economic, political, and social problems. Prerequisite: SOC 101 or consent of instructor.

SOC 314. Popular Music and Society (3). Formal organization of music industry and its impact on American society. Each facet of the industry examined: performer, production, marketing, record buying. Prerequisite: SOC 101.

SOC 315. American Society (3). Models of contemporary American society, dominant value orientations. Prerequisite: SOC 101.

◆ **SOC 316. Minority Groups** (3). Problem and adjustment of minority groups in American society; conditions that favor and hinder acceptance of such minorities as integral elements in national population. Prerequisite: SOC 101.

SOC 317. Social Stratification and Poverty (3). Inequalities in distributions of wealth, power, and prestige in societies. Types of systems of inequality; caste, estate, class. Consequences of inequalities for society as whole and for segments of society; educational-occupational opportunities, racial-ethnic relations, social mobility, social change. Prerequisite: SOC 101.

SOC 318. Social Organization (3). Sociological concepts, theories, and models of contemporary complex organizations; impact of social psychological factors on organizational effectiveness, relationship of systems theory to problems of organizational design and behavior. Prerequisite: SOC 101.

SOC 331. Contemporary Cultures (3). Culture area(s) emphasized varies with staff and student interest. Area announced in schedule of classes (Africa, Europe, Near East, Native North America, Latin America, Asia, Pacific). May be repeated to 12 hours. Prerequisite: SOC 231 or consent of instructor.

SOC 332. Archaeology (2). Prehistory of man; early cultural development throughout world. Prerequisite: SOC 231.

SOC 334. Anthropology and Contemporary Human Problems (3). Contemporary cultures as collective patterns of living and attempts to create more human way of life. Methods of depicting and interpreting cultural codes of behavior, thought, feeling. Prerequisite: SOC 231 or consent of instructor.

SOC 335. Medical Anthropology (3). Cross-cultural study of health and disease patterns in human populations. Emphasis on influence of cultural and ecological factors in the response to illness in traditional, rural, ethnic, and urban communities.

SOC 341. Juvenile Delinquency (3). Analysis and processes of development, treatment, prevention, and control of juvenile delinquency. Prerequisite: SOC 101.

SOC 342. Deviance and Social Control (3). History of attempts to define and explain deviant behavior. Social conditions and processes associated with careers of deviants; relationship of deviancy to problems of social control. Prerequisite: SOC 101.

SOC 344. Deviant Sexual Behavior (3). Sociological perspective on sexual behaviors stigmatized in U.S.: such aspects as prevalence, social contexts of occurrence, effects on society, sources and impacts of societal reaction, especially criminal law. Prerequisite: SOC 101.

SOC 352. Collective Behavior (3). How new social groupings and order arise from unstructured situations. Behavior of such collectivities as riots, mobs, and crowds. Prerequisite: SOC 101.

SOC 361. The Family (3). Traditional and contemporary family types; current similarities and differences of family organization in various cultural environments. Prerequisite: SOC 101.

SOC 369. Introductory Statistics (3) I, II. Data presentation, measures of dispersion, correlation, regression, probability, probability distributions, sampling distributions, hypothesis testing, and analysis of variance. Prerequisite: SOC 101.

SOC 370. Introductory Methodology (3) I, II. Research techniques, measurement, sampling, questionnaire, interview schedules, and data processing. Data coding, keypunching, and computer tape files. Prerequisite: SOC 101.

SOC 371. Introductory Research Design (2). Methods and applications of research on social phenomena; problems that arise in social sciences. Prerequisites: SOC 369 and 370.

SOC 395. Workshop on Current Topics (1-4). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser. Graded S/U.

SOC 404. Social Gerontology (3). Problems of aged in contemporary society. Social gerontology as field of interest of interdisciplinary nature; emphasis on socio-economic approach. Prerequisite: SOC 101.

SOC 414. Society and the Environment (3). Present issues and problems of human environment from a sociological perspective. Special emphasis on analysis of the present problems of resources, pollution, technology, population consumerism and the use of energy.

SOC 415. Industrial Sociology (3). Social impact of industrialization; interrelationships among industry, business, community and society. Prerequisite: SOC 101.

SOC 416. Political Sociology (3). Political behavior in society from standpoint of both classical and contemporary sociology. Prerequisite: SOC 101.

◆ **SOC 417. Sociology of Sport** (3). Sociological concepts and theories to investigate sport as social institution and relationship to other social institutions; organizational theory and small group research applied to sport; social psychological aspects of sports. Prerequisite: SOC 101.

◆ **SOC 418. Social Change and Development** (3). Processes of social change and rational direction of society. Prerequisite: SOC 101.

◆ **SOC 441. Criminology** (3). Nature, causes, treatment, and prevention of crime. Prerequisite: SOC 101.

SOC 442. Corrections (3). Socio-psychological approach to origins and development of federal, state, and local penal institutions. Prerequisite: SOC 101.

SOC 443. White Collar and Organized Crime (2). Criminal behavior within and by organizations; analyses of employee theft, graft, corporate crime; governmental crime, professional crime, syndicated crime. Prerequisite: SOC 101.

SOC 449. Field Work, Corrections (2). Field work experience in approved corrections agency. Arrangements (usually one full day per week plus individual conferences and group seminar for two consecutive quarters) must be approved in advance by instructor. May be repeated once. Prerequisite: senior standing. Graded S/U.

SOC 453. Ethnological Theory (3). Anthropological theories and varying uses of concept of culture in social sciences. Prerequisites: SOC 231 and consent of instructor.

SOC 460. Family and Sex Roles (3). Theoretical and empirical literature on family and sex roles; socialization, changing nature of women's and men's roles and prospects for future. Institutional sources of women's and men's roles in other cultures. Prerequisite: SOC 101.

SOC 463. Leisure, Work, and Retirement (3). Sociological analysis of three aspects of life cycle. Crisis in personal life occasioned by each of these stages and by transitions from one stage to another. Prerequisite: SOC 101.

SOC 470. Readings, Research and Internship (1-8) I, II, summer. Supervised independent work in selected areas. Extensive reading of more advanced literature, planned research, or field placement in an approved setting. May be repeated, but cannot exceed a total of 12 hours. Prerequisites: junior standing and a minimum of 12 hours of accumulated credit in regularly scheduled SOC courses. Permission of instructor and department chair required. Graded S/U.

SOC 480. Senior Seminar (3). On demand. Selected topics in sociology. Recent seminars have included sociology of women, individual and sociology, contemporary social critics, the family, alternatives and critiques. May be repeated. Prerequisites: SOC 101 and consent of instructor.

Spanish (SPAN)

Entering students who had Spanish in high school should take the placement test during summer preregistration or prior to enrollment in a course.

- ◆ **SPAN 101. Elementary Spanish I** (4) I, II. Beginning oral-aural study of language with attention to grammar. Four class periods and scheduled oral practice each week.
- ◆ **SPAN 102. Elementary Spanish II** (4) I, II, III. SPAN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 101 or one year of Spanish in high school.
- SPAN 111. Hispanic Cultural Series I** (4) I, II. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory.
- SPAN 112. Hispanic Cultural Series II** (4) I, II. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory. Prerequisite: SPAN 101 or SPAN 111 or one year of Spanish in high school.
- SPAN 141. Conversational Spanish for Medical Personnel** (3). Practice in speaking and understanding oral Spanish; essential expressions, questions, and directions needed by medical personnel.
- ◆ **SPAN 201. Intermediate Spanish I** (3) I, II. Grammar review. Development of the four skills. Three class periods and laboratory practice each week. Prerequisite: SPAN 102 or two years of Spanish in high school.
- ◆ **SPAN 202. Intermediate Spanish II** (3) I, II. SPAN 201 continued. Three class periods and laboratory practice each week. Prerequisite: SPAN 201 or three years of Spanish in high school.
- ◆ **SPAN 211. Hispanic Cultural Series III** (3) I, II. Development of reading comprehension in Spanish using cultural materials concerning Spain. Conducted in English. Prerequisite: SPAN 102 or two years of Spanish in high school.
- ◆ **SPAN 212. Hispanic Cultural Series IV** (3) I, II. Development of reading comprehension in Spanish using cultural materials concerning Spanish America. Conducted in English. Prerequisite: SPAN 211 or SPAN 201 or three years of Spanish in high school.

Special Education (EDSE)

(See education, special)

Sports Studies and Management (SSM)

(See health, physical education and recreation)

Theatre (THEA)

(See speech communication)

Visual Communication Technology (VCT)

(See technology)

Women's Studies (WS)

WS 200. Introduction to Women's Studies (3) I, II. Individual and collective achievements of women; roles women do and might perform; "nature" of women and ways it has been imagined in our own and other cultures. Required of all women's studies majors and minors.

WS 300. Topics in Women's Studies (3) I, II. Topics of interest in studying women in subject area not offered in regular college course offerings. May be repeated twice if topics differ. No prerequisite.

WS 400. Senior Seminar in Women's Studies (3) Summer. Theories, methods, approaches to women's studies. Interdisciplinary research project required. Required of all women's studies majors and minors. Prerequisite: senior standing.

WS 490. Independent Study in Women's Studies (1-3) I, II. Study project to be designed by student and member(s) of women's studies faculty in subject area not offered in regular course offering. Prerequisite: junior or senior standing.

Health, Physical Education and Recreation, School of

Health Education (HED)

- ◆ **HED 109. Personal and Community Health** (3) I, II, summer. Basic personal and community health concepts, values and practices. Not open to students with credit for HED 209.
- HED 209. Advanced Concepts in Personal and Community Health** (3) I, II. Detailed study of factors that influence personal and community health in a contemporary society. Primarily for health education and physical education students.
- HED 230. Humanizing Health Education** (1) I, II. The theories and methods of values clarification, affective learning, and transactional analysis as they relate to the pre-service health education student. Prerequisite: sophomore standing.
- HED 301. Women's Health** (2) II. Health topics of special interest and importance to women. Open to all students; HED 338 highly recommended.
- ◆ **HED 313. Cardiopulmonary Resuscitation and Advanced First Aid and Safety** (3) I, II, summer. Provides knowledge and training in the prevention and treatment of accidents, injuries and procedures of basic life support. Satisfactory completion may result in American Red Cross certification. Participation in skill practice required.
- ◆ **HED 314. Instructors Advanced First Aid and Emergency Care** (1) II. Successful completion may lead to advanced instructor's certificate by the American National Red Cross. Prerequisites: junior standing and valid advanced first aid certificate.
- HED 338. Concepts of Human Sexuality** (3) I, II, summer. Information and concepts of human sexuality, including the physiological, social, psychological, moral and legal aspects. Prerequisite: junior standing or consent of instructor.
- HED 340. Drug Use/Abuse** (3) II. Knowledge regarding the ambiguity of drugs in society. Physical, psychological and social ramifications of drug use/abuse will be discussed. Prerequisites: HED 209 and junior standing or consent of instructor.
- HED 346. Health Education for the Elementary School Teacher** (3) I, II, summer. Content and techniques for teaching personal and community health in the elementary school.
- HED 348. Instructional Techniques in Health Education K-12** (3) I, II, summer. On demand. Principles, planning methods, materials, resources and human relations of teaching health. C/F hrs.: 4.
- HED 362. Driver Education-Basic Instructor's Course** (3) I, II, summer. First of two courses required to qualify student to organize, administer, and teach driver education in Ohio. Prerequisites: junior standing and driver's license. C/F hrs.: 5.

HED 393. Practicum in Health Education (3) I, II. Practical experience in the preparation and presentation of health education instruction. Requirements include placement in a public school setting, on campus classroom work and regularly scheduled seminars. Prerequisites: HED 348 and HED 313. C/F hrs.: 147.

HED 395. Workshop on Current Topics (1-3). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials developed. Typically, an all day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of advisor. Prerequisite: as decided by instructor.

HED 409. School Health Services and School Environment (3) I, II, summer. Consideration of school health services and school environment, including principles, organization and administration of: health appraisal, health counseling, communicable disease control, educational adjustments, emergency programs, record keeping and a safe school environment. Prerequisite: junior standing. C/F hrs.: 20.

HED 462. Driver Education-Advanced Instructor's Course (3) II, summer. Second of two courses required to qualify a student to organize, administer and teach driver education in the Ohio secondary schools. C/ hrs.: 15.

HED 470. Independent Study in Health Education (1-3). On demand. An in-depth study project of a topic of particular significance to the student. Project must be approved by project supervisor and program area chair prior to registration. May be repeated.

HED 480. Seminar in Teaching Controversial Issues in Health Education (2) I, II. Teaching methods and procedures in discussing human sexuality, controversial life styles, addictive elements and contemporary issues of controversy such as death education, nutrition, the healing arts, child abuse, and socialized health care. Prerequisite: junior standing. C/F hrs.: 5.

HED 481. Senior Seminar in Health Education (2) I, II. Discussion of issues and problems faced by the school health educator: content comprehension and organization; instructional dilemmas encountered in student teaching; evaluative procedures specific to total health program. Prerequisites: senior standing, health education major or minor.

HED 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

HED 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

Physical Education, General (PEG)

◆ **PEG 100. General Physical Education (1)** I, II, summer. Each freshman must fulfill the University requirement of two units from diverse physical activities. Most activities are coeducational. Two hours per week. Graded S/U.

◆ **PEG 200. General Physical Education (1)** I, II, summer. Elective program in diverse activities. Open to any student who has completed the University required three hours in PEG 100. Two hours per week.

Physical Education, Professional (PEP)

PEG 110, 112, 116, 121, 123, 124. Required Professional Activities. A required program of skill and knowledge development within each activity including identification/analysis/observation of elements of movement. Two laboratories. C/F hrs.: 10 each.

PEG 110. Gymnastics-Men (2) II.

PEG 112. Gymnastics-Women (2) II.

PEG 116. Soccer (2) I.

PEG 121. Tennis (2) I.

PEG 123. Track and Field (2) I.

PEG 124. Volleyball (2) II.

PEG 137. Educational Dance (1) I, II. Movement approach for dance where the learner becomes aware of the expressive values inherent in dance by experiencing and analyzing movement, creating dances, and responding to dance structure. One laboratory. Advisable to take concurrently with PEP 138.

PEG 138. Educational Gymnastics (1) I, II. Movement approach to gymnastics where the learner becomes aware of how to manage body weight and understand concepts related to the development of versatile, qualitative and inventive movement. One laboratory. Advisable to take concurrently with PEP 137.

PEG 201-205, 207-209, 213, 214, 217-219, 226-228. Elective Professional Activities. Elective courses of skill and knowledge development basic to participation and understanding of the activity. One laboratory.

PEG 201. Archery (1) I. Alternate years.

PEG 202. Badminton (1) I, II.

PEG 203. Basketball (1) I, II.

PEG 204. Bowling (1) II. Alternate years.

PEG 205. Diving (1) I. Alternate years.

PEG 207. Fencing (1) II. Alternate years.

PEG 208. Field Hockey (1) I. Alternate years.

PEG 209. Golf (1) I.

PEG 213. Lacrosse (1) II. Alternate years.

PEG 214. Rebound Tumbling (1) II.

Alternate years.

PEG 217. Softball (1) I.

PEG 218. Swimming (1) I.

PEG 219. Synchronized Swimming (1) I. Alternate years.

PEG 226. Wrestling (1) II. Alternate years.

PEG 227. Advanced Educational Dance (1) II. Alternate years.

PEG 228. Advanced Educational Gymnastics (1) II. Alternate years.

PEG 222. Advanced Synchronized Swimming (1) I, II. For advanced synchronized swimmer or person interested in participating in annual production and demonstrations; choreography, lighting, publicity and production. Laboratory hours arranged. May be repeated to four hours. Prerequisite: consent of instructor.

PEG 225. Advanced Lifesaving (1) I, II, summer. Red Cross Advanced Lifesaving training techniques and skills designed to save lives in the event of aquatic emergencies. Prerequisite for water safety instructor's course and life-guard training. One laboratory. Prerequisite: eligibility testing conducted first week of course.

PEG 230. Structural Kinesiology (4) I, II, summer. The study of movement based on functional anatomy and selected mechanical principles. Three lectures; one laboratory. Prerequisite: sophomore standing. C/F hrs.: 15.

PEG 233. Laboratory Experiences with Children (2) II. Opportunities to engage in field experiences with urban children in closely supervised school situation and in on-campus settings focused on developing, analyzing and improving teacher behavior through working with individual EMR children and assisting in classes. May be repeated to four hours. Two laboratories. C/F hrs.: 45.

PEG 235. Professional Reading and Writing in Physical Education (1) II. Reading and interpretation of literature in physical education; writing professional paper; treatment of pertinent statistical techniques. Prerequisite: ENG 112.

PEG 237. Teaching Educational Dance (2) I. Movement approach to children's dance with special emphasis on program content, methodology and progression. One lecture, one laboratory. Prerequisite: PEP 137 or permission of instructor.

PEG 238. Teaching Educational Gymnastics to Children (2) I. Movement approach to gymnastics for children with emphasis on program content, methodology and progression. One lecture, one laboratory. Prerequisite: PEP 138 or permission of instructor. C/F hrs.: 21.

PEG 241. Educational Games Teaching to Children (2) I, II. Structure and teaching progression of games and sports; social, motor and cognitive. One lecture, one laboratory. Prerequisite: PEP 137 or PEP 138 or permission of instructor. C/F hrs.: 40.

PEG 247. Practical Experience (3) I, II. Supervised field experience with groups between ages of 11-18. Not open to first or second semester freshmen. Two lectures, one laboratory. Prerequisites: PEP 230, SPCH 102, and LEM 301. Recommended: PEP 137, PEP 138. C/F hrs.: 50.

PEG 256. Concepts of Physical Education (2) I, II. Introduction to the profession of physical education; objectives of physical education, elementary school and secondary school physical education, competitive athletics, adapted physical education, and career opportunities. Open only to major or minor students in physical education or by consent of instructor.

PEG 303. Biomechanics (3) I, II, summer. The study of human motion through the examination of internal and external forces acting on the body and the effects produced by these forces. Two lectures, one laboratory. Prerequisite: PEP 230. C/F hrs.: 20.

PEG 322. Red Cross Water Safety Instructor's Course (2) I, II. Completion certifies student to conduct and to certify Red Cross swimming and lifesaving courses except WSI. One lecture, one laboratory. Prerequisites: Current advanced lifesaving certificate, evidence of teaching need, and consent of instructor. C/F hrs.: 10.

PEG 332. Teaching-Learning Processes (3) I. Analysis of student-teacher behaviors through clinical and field-based experiences for the purpose of developing and improving teacher-learning effectiveness. Emphasis on personal assessment and development of techniques. Two lectures, one laboratory. Prerequisites: PEP 137, PEP 138, PEP 241 and/or permission of instructor. C/F hrs.: 60.

PEP 340. Motor Development (3) II. Physical growth and perceptual-motor development of human beings including observation of children and assessment of perceptual and motor characteristics. C/F hrs.: 30.

PEP 342. Physical Education in the Elementary School (3) I, II, summer. Movement approach to physical education in the elementary schools including the examination of teacher behavior, child behavior, teaching techniques and styles and movement content. Prerequisites: PEP 137 and/or PEP 138.

PEP 350. Motor Learning (3) I, II. Perception, learning, motivation and other psychological factors involved in motor learning and performance. Two lectures, one laboratory. Prerequisite: EDFI 302. C/F hrs.: 40.

PEP 356. Philosophical and Cultural Bases of Physical Education (3) II. The study of philosophy and culture pertinent to the shaping of physical education as a discipline.

PEP 360. Exercise Physiology (4) I, II. Lecture/laboratory course; the immediate and long range effects of exercise upon the human body. Two lectures, one laboratory. Prerequisite: BIOL 332. C/F hrs.: 20.

PEP 362. Teaching Motor Activity in Secondary Schools (3) I, II. Principles, objectives, lesson planning, instructional materials, teaching methods, curriculum, and field experience in physical education in the secondary schools. Two lectures, two laboratories. Prerequisites: PEP 350, EDFI 302, and admission to PEP Major Plans II or III. C/F hrs.: 60.

PEP 387. Practicum (1-5) I, II, summer. Field experience under supervision of PEP division of School of Health, Physical Education and Recreation. Petitioning required of each student before registration. Credit hours for each experience approved separately by program area. Prerequisite: approval of PEP division faculty.

PEP 392. Practicum in Secondary School Physical Education (2) I, II. Field experience in physical education in the public school. Weekly assignment includes being in a public school two half days and attending regular seminars. Arrange. Prerequisites: PEP 362, HED 313, and junior standing. C/F hrs.: 90.

PEP 395. Workshop on Current Topics (1-3). On-demand. Intensive educational experience in selected topics related to skill development, content update, or material development. Typically, an all-day or similar concentrated time format. Prerequisites: approval of PEP division faculty and chair.

PEP 402. Assessment and Evaluation in Physical Education (2) I, II, summer. Assessment and evaluation principles and techniques with application to performance/learning in physical education programs. C/F hrs.: 8.

PEP 412. Organization and Administration of Physical Education and Interscholastic Athletics (3) I, II, summer. Organization and administration of the total physical education program including instructions, intramurals, extramurals and interscholastic athletics. Prerequisite: senior standing.

PEP 428. The Movement Approach to Teaching Physical Education to Children (5) II. Selection, design, and application of learning experiences appropriate for elementary school child based on movement concepts. PEP 387 must be taken concurrently. Two lectures, three laboratories. Prerequisite: PEP 332. Recommended: PEP 233, PEP 238, PEP 241, PEP 337 or approval of instructor. C/F hrs.: 100.

PEP 433. Fundamentals of Physical Education and Recreation for Special Populations (3) I, II, summer. Principles, objectives and history of adapted physical education. Overview of disabilities in relation to assessment, movement, instructional methods, resource materials, observation strategy and field trips. Two lectures, one laboratory. C/F hrs.: 35.

PEP 435. Motor Performance of Exceptional Children (3) II. Relationship of neuromuscular patterns, assessment, and programming to movement of exceptional child field work. Two lectures and arrange. Recommended prerequisite: PEP 433 or PEP 340. C/F hrs.: 20.

PEP 438. Seminar in Elementary School Physical Education (2) II. Identification and examination of selected curricular problems and issues in elementary school physical education. Prerequisite: PEP 428 or permission of instructor. C/F hrs.: 30.

PEP 443. Physiological Effects of Motor Activity (4) II, summer. Physiological adaptation to exercise; metabolic and cardiovascular components, heat stress, body composition, other related topics. Two lectures, one laboratory. Prerequisites: BIOL 332. C/F hrs.: 20.

PEP 470. Independent Study in Physical Education (1-3) I, II, summer. An indepth study project of a topic of particular significance to the student. Project must be approved by project supervisor and program area chair prior to registration. May be repeated. Prerequisite: by permission.

PEP 487. Practicum (1-5) I, II, summer. Under supervision of PEP division of School of Health, Physical Education and Recreation. Petitioning and approval required of each student before registration. Credit hours for each experience approved separately by program area. Prerequisite: approval of PEP division faculty.

PEP 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

PEP 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

Recreation and Dance (RED)

RED 106. Ballroom Dance I (2) II. Basic skills and knowledges specific to social and ballroom styles; beginning teaching methods.

RED 111. Folk and Square Dance I (2) I. Basic skills and knowledges specific to folk and square dance styles; beginning teaching methods.

RED 115. Modern Dance I (2) I, II. The first in a series of progressions in modern dance, exploring basic movement skills and correct body alignment; may be repeated up to six hours.

RED 120. Classical Ballet I (2) I, II. Studio instruction of classical ballet fundamentals with emphasis on correct body alignment, barre, and basic center work; may be repeated up to six hours. Prerequisite: beginning competency and permission of instructor.

RED 178. Camp Leadership (2) II. Organized camp movement; uniqueness of the camping experience and setting; role of the counselor; and programming and counseling principles.

RED 190. Recreation Leadership (3) I, II. Selecting, creating and conducting activities suitable for the wants and needs of various populations; leadership theories, styles and techniques; activity assessment; social activities pattern and recreation leadership kit.

RED 210. Major Concepts in Recreation (2) II. Philosophical concepts and historical foundations; exploration of economic, sociological, and psychological aspects; leisure service delivery systems and professional leadership.

RED 215. Modern Dance II (2) I, II. The second in a series of progressions, including studio instruction in modern dance with floor and center work in varying modern styles; may be repeated up to six hours. Prerequisite: RED 115 or permission of instructor.

RED 220. Classical Ballet II (1) I, II. The second of a graded series of progressions, including studio instruction in classical ballet techniques with emphasis on adagio and allegro enchainements; may be repeated up to six hours. Prerequisite: RED 120 or permission of instructor.

RED 224. Dance Performance Workshop (1) I, II. Experience in choreography and participation as members of the concert group, may be repeated up to six hours. Prerequisites: audition and permission of instructor.

RED 226. Perspectives in Dance (1) II. Introduction to the art of dance, including current trends in modern dance, classical ballet and vernacular dance form, exploration of the philosophies and aesthetic principles.

RED 260. Recreation and Physical Activity for Older Americans (2) II. Alternate years. Characteristics of older Americans; therapeutic benefits of activity; major services and settings; program planning; administrative concerns.

RED 294. Outdoor Leadership (3) II. Knowledge and leadership skills in the areas of outdoor living skills, backpacking, bicycle touring and canoe tripping. One weekend trip required.

RED 304. Outdoor Recreation (3) II. Outdoor recreation resource bases; governmental agencies and private organization management and operations; behavioral patterns in outdoor recreation pursuits; legal, economic, and political impacts.

RED 315. Modern Dance III (1) I, II. The third in a graded progression including studio instruction in varying styles of modern dance, emphasis will be placed on horizontal and oblique designs, turns, falls, jumps, leaps and complicated rhythms, may be repeated up to six times. Prerequisite: RED 215 or permission of instructor.

RED 320. Classical Ballet III (1) I, II. The third in a graded series of progressions, including studies instruction in classical ballet techniques, added difficulty in barre, adagio, and allegro work and introduction to pointe work, may be repeated up to six hours. Prerequisite: RED 220 or permission of instructor.

RED 323. Camp Administration (2) I. Role of camping in society; patterns of organization; programming guidelines, management aspects, personnel, and site and facilities.

RED 325. Theory and Methods of Teaching Dance (1) I. A seminar experience in pedagogical practices, in classical ballet and modern dance forms. Prerequisites: RED 215, 220, or permission of instructor.

RED 326. Dance Composition (2) II. Basic principles of form and flow of movement and their application to compositions in dance. Prerequisites: RED 215, RED 220 or permission of instructor.

RED 327. Choreography Workshop (1) I. Studio analysis of the elements of choreography; development of dance compositions, evaluation of compositions; specific assignments of selected problems; may be repeated up to six hours. Prerequisite: RED 326 or permission of instructor.

RED 380. Concepts and Techniques in Outdoor Education (4) II. Outdoor education through school curricula, interpretive services, recreation agencies and community action; philosophical bases; identification and utilization of resources; the learning process.

RED 384. Organization and Administration of Recreation (3) II. Basic concepts of administration, personnel management, fiscal management, public relations techniques, motivation theory, grant writing and fund raising, legal aspects of administration; budget proposal preparation and development of employment seeking skills. Prerequisite: RED 210.

RED 385. Recreation Program Development (3) I. Principles of program planning, organization, and administration, operation of areas and facilities; current practices in publicity and public relations; supervision of program and staff; tournament scheduling; program budgeting. Prerequisite: RED 210.

RED 387. Practicum (1-5) I, II, summer. Application of leadership and program theory to field setting; petitioning and approval required of each student before registration, may be repeated. Credit hours for each experience approved separately by program area. Prerequisite: approval of appropriate division faculty.

RED 395. Workshop on Current Topics (1-3). On demand. Intensive educational experience on selected topics related to skill development, content update, or material development; may be repeated.

RED 424. History and Philosophy of Dance (3) I. Events, personalities, and philosophies of dance from primitive to modern times, including the development of ballet and the emergence of modern dance.

RED 426. Dance Production (3) II. Classroom and hands-on experience; problems and techniques in dance lighting, sound, costuming, direction, publicity and general management.

RED 470. Independent Study (1-3) I, II, summer. An in-depth project of significance to the student. Credit allocation by project supervisor and approval by chair prior to registration. Prerequisite: by permission of instructor.

RED 482. Evaluation of Recreation Services (3) I. Methods, techniques and application of evaluation processes.

RED 483. Recreation Areas and Facilities (3) II. Planning and design principles; acquisition, development, construction and maintenance of specific types of recreation areas and facilities.

RED 484. Contemporary Issues in Recreation (2) I. Seminar in current issues.

RED 487. Practicum (1-5) I, II, summer. Application of program, supervision, and administration theory to a field setting; petitioning and approval required of each student before registration; credit hours for each experience approved separately, may be repeated. Prerequisite: approval of appropriate division faculty.

RED 488. Fieldwork (10) I, II, summer. A concentrated professional experience for students preparing for a career in recreation and dance. Prerequisites: grade point average of 2.5, 60 credit hours, RED 384, RED 385 and consent of recreation and dance division.

Sports Studies and Management (SSM)

SSM 306. Sports Officiating: (Sub-Title) (1) I, II. Lecture and laboratory experience in the rules and mechanics of officiating; prepares for OHSAA examination. May be repeated. Two labs per week.

SSM 306 A - Basketball (1) II.

SSM 306 B - Football (1) I.

SSM 306 C - Baseball/Softball (1) I, II.

SSM 306 D - Track/Field (1) II.

SSM 306 E - Volleyball (1) I.

SSM 306 F - Soccer (1) On demand.

SSM 306 G - Wrestling (1) On demand.

SSM 306 H - Swimming/Diving (1) On demand.

SSM 310. Care and Prevention of Sports Injuries (2) I, II. Prevention, evaluation, and temporary care of injuries; laboratory experience in bandaging, strapping, evaluating case studies, and use of the training room. Recommended: BIOL 332, PEP 230.

SSM 328. Principles, Ethics, and Problems of Athletic Coaching (3) I, II. Non-technical, "off-the-field" aspects of athletic coaching educational implications; coaching ethics; public relations; equipment; financing; liability; coach-athlete rapport. Prerequisite: junior standing.

SSM 329. Coaching Football (3) I. Development of personal skills and understandings in football, team administration, organization, philosophy, theory, fundamentals, strategy, methods and responsibilities of coaching football. Two lectures, two labs per week. Prerequisite: sophomore standing.

SSM 330. Coaching Track/Field (2) II. Administration, organization, philosophy, theory, strategy, methods and responsibilities of coaching track and field. One lecture, two labs per week. Prerequisite: PEP 123-Track/Field.

SSM 331. Coaching Basketball (2) I, II. Administration, organization, philosophy, theory, fundamentals, strategy, methods and responsibilities of coaching basketball. One lecture, two labs per week. Prerequisite: PEP 203-Basketball.

SSM 332. Coaching Baseball (3) I. Development of personal skills and understandings in baseball; administration, organization, philosophy, theory, strategy, methods, drills, field preparation, and responsibilities of coaching. Two lectures, two labs per week. Prerequisite: sophomore standing.

SSM 333. Coaching Volleyball (2) I. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching volleyball. One lecture, two labs per week. Prerequisite: PEP 124-Volleyball.

SSM 334. Coaching Softball (2) II. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching softball. One lecture, two labs per week. Prerequisite: PEP 217-Softball.

SSM 335. Designing and Directing Fitness and Sport Programs (3) II. Objectives, transactions, and procedures to conduct professional physical activity and sport programs. Prerequisites: SSM 387 and SSM 423.

SSM 336. Coaching Swimming/Diving (2) II. Administration, organization, philosophy, theory, strategy, methods, and responsibilities of coaching swimming and diving. One lecture, two labs per week. Prerequisite: PEP 218-Swimming.

SSM 387. Practicum - Physical Activity and Sport (1-5) I, II, summer. Under supervision of SSM division of School of HPER; petitioning required before registration; credit hours approved separately by program area. Prerequisite: approval of appropriate division faculty.

SSM 391. Practicum in Athletic Studies (2) I, II. Field experience with interscholastic athletic programs in an approved setting; weekly on-campus seminars; may be repeated once by athletic coaching minors. Prerequisites: SSM 328, concentration in athletic coaching or athletic training, and permission of instructor.

SSM 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience in selected topics related to skill development, content update, or material development; typically, an all-day or similar concentrated time format.

SSM 410. Advanced Techniques of Athletic Training (3) II. Mechanism of sport injuries, recognition of severity, examination, treatment, and rehabilitation of specific areas of injuries. Prerequisites: SSM 310 and BIOL 331, or consent of instructor.

SSM 421. History and Philosophy of Sport (3) I. Major historical and philosophical developments in sport.

SSM 423. Scientific Foundations of Physical Fitness (3) II. Assessment and development of physical fitness. Prerequisite: PEP 360.

SSM 425. Women and Sport (3) II. Historical, cultural, and physiological considerations of women's participation in sport.

SSM 429. Principles and Problems of Athletic Conditioning (2) I. Physiological foundations of conditioning and the basic fundamentals of conditioning techniques based on principles of strength, power, endurance, speed, etc., relevant to athletic fitness and performance. Prerequisites: BIOL 332 or PEP 360/443 or consent of instructor.

SSM 431. Problems in Intramural and Extramural Sports (2) II. Planning, promoting, and administering intramural and recreational sports programs. Prerequisite: junior standing.

SSM 470. Independent Study in Sport Studies and Management (1-3) I, II, summer. An in-depth study project of a topic of particular significance to the student; project must be approved by project supervisor and program area chair prior to registration; may be repeated. Prerequisite: by permission.

SSM 487. Practicum – Physical Activity and Sport (1-5) I, II, summer. Under supervision of SSM division of School of HPER; petitioning required before registration; credit hours approved separately by program area; minimum of three hours taken during professional semester. Prerequisites: SSM 387 and approval of appropriate division faculty.

SSM 489. Internship in Sports Studies and Management (12) I, II, summer. Field experience for sport management majors only. Prerequisites: minimum of 52 hrs. in major field, at least one SSM practicum experience, GPA of 2.5 and an average of 3.0 in the major field; the student must meet and maintain this standard for one semester prior to the internship assignment.

SSM 490. Professional Resources in Sport Activities (3) I, II. Professional resources for leadership roles in sport and activity. Prerequisite: SSM 387.

Speech Communication, School of

Communication Disorders (CDIS)

CDIS 121. Personal Remediation (1) I, II, summer. Students having speech, language, or hearing problem requiring remedial treatment urged to take advantage of services offered by speech and hearing clinic. No credit toward graduation. Additional fee: \$25. Graded S/U.

◆ **CDIS 223. Introduction to Communication Disorders** (3) I, II, summer. Normal speech and language development, description and etiology of various communication disorders, i.e., articulation, voice, stuttering, etc.

CDIS 224. Phonetics (2) I, II. Sounds of spoken English, their production and recognition. Applications to techniques in speech pathology and habilitation of the hearing handicapped. Prerequisite: CDIS 223 or CDIS 471.

CDIS 301. Speech and Hearing Science (4) I, II. Anatomical and physiological principles of the speech and hearing mechanisms including acoustics and the acoustic theory of speech production and perception. Prerequisites: CDIS 223 and CDIS 224.

CDIS 311. Articulation Development and Disorders (3) I, II. Development, diagnosis, and therapeutic techniques for problems of articulation. Clinical observations required. Prerequisite: CDIS 301.

CDIS 321. Voice Disorders and Cleft Palate (2) I. Study of normal and abnormal voices in children and adults. Prerequisite: CDIS 301.

CDIS 331. Neurogenic Disorders of Communication (3) I. Basic principles of neuromotor development and their relation to speech processes. Etiology, diagnosis and treatment of developmental and acquired neurogenic speech disorders. Prerequisite: CDIS 311; non-majors must obtain consent of instructor.

CDIS 341. Stuttering (2) II. Definition, description, development and maintenance of stuttering; approaches to assessment and treatment in children and adults. Prerequisites: CDIS 321, junior standing, and PSYC 305 or consent of instructor.

CDIS 351. Language Acquisition, Assessment and Remediation (4) I, II. Normal acquisition patterns and stages, mechanisms of acquisition, techniques for effective evaluation and survey of therapy programs and techniques. Prerequisites: CDIS 311 and ENG 380.

CDIS 361. Introduction to Diagnostic Audiology (3) I. Audiometric pure-tone testing methods, otologic pathologies, and associated hearing problems. Prerequisite: CDIS 301.

CDIS 401. Prepracticum in Communication Disorders (2) II. Introduction to clinical setting; student will be involved in planning, observing, and assisting in therapy. Two lectures, two observation periods per week. Prerequisites: CDIS 311, 321, 341, and 2.25 GPA. C/F hrs.: 20.

CDIS 411. Diagnosis and Assessment of Communication Disorders (4) I, II. Clinical techniques and theory relating to the appraisal and diagnosis of communication disorders in children and adults. Practical experience in evaluation and report writing. Prerequisites: CDIS 331, 351, 361, 401. C/F hrs.: 15.

CDIS 421. First Practicum in Communication Disorders (2) I, II, summer. Supervised clinical experience with children and adults. Two lectures and two clinical periods per week. Prerequisites: CDIS 401 and 411, 2.5 GPA in CDIS courses, 40 approved observation hours, and consent of instructor. C/F hrs.: 45.

CDIS 431. Second Practicum in Communication Disorders (2) I, II, summer. Supervised clinical experience with children and adults. Two lectures and two or more clinical periods per week. Prerequisites: CDIS 421, 2.5 GPA in CDIS courses, and consent of instructor. C/F hrs.: 45.

CDIS 434. Teaching Beginning Speech to the Deaf (2) I. Speech development of deaf. Analysis of auditory, tactile, proprioceptive and visual aspects of speech sounds. Relative difficulty of producing speech sounds and teaching them. Prerequisites: EDSE 461, 464. C/F hrs.: 15.

CDIS 436. Teaching Advanced Speech to the Deaf (2) II. Review and comparison of methods in teaching speech to deaf. Common problems in speech classes for deaf. Speech sounds and their maintenance and correction as integral part of academic curriculum. Prerequisite: CDIS 434. C/F hrs.: 15.

CDIS 451. Language Principles and Practices for the Special Education Professional (4) I, II. Introduction to language patterns of normal children related to the acquisition of pragmatics, syntax and semantics. Relationship of these patterns to assessment and remediation procedures and strategies in atypical populations.

CDIS 461. Introduction to Rehabilitative Audiology (4) II. Rehabilitation of the hearing impaired. Amplification systems, speech reading, and auditory training. Prerequisite: CDIS 361.

CDIS 470. Independent Study in Communication Disorders (1-3) I, II, summer. For students who wish to do intensive study in communication disorders independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of instructor and program chair.

CDIS 471. Introduction to Communication Disorders for the Classroom Teacher (3) I, II, summer. Identification, etiologies, and characteristics of communication disorders. Suggestions for classroom management of communication disorders. Not open to student with credit for CDIS 223.

CDIS 481. Organization and Management of School Speech-Language-Hearing Programs (3) I, II. Planning and implementing programs in schools for speech-language and hearing-handicapped pupils. Clinician's roles and responsibilities. Grade of "C" or better in this course to qualify for student teaching. Prerequisites: all CDIS courses.

CDIS 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

CDIS 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs.: 300. May be repeated. Graded S/U.

Interpersonal and Public Communication (IPCO)

- ◆ **IPCO 110. Intercollegiate Forensic Activities** (1) I, II. For student who wishes to participate in intercollegiate debate, discussion, oratory, extemporaneous speaking, or other individual events. May be repeated to two credits.

IPCO 203. Small Group Communication (3) I, II, summer. Theory and practice in the analysis of social interaction in small groups as it affects problem solving and policy formation processes. Mass lecture plus lab sections.

IPCO 204. Argumentation (3) I, II, summer. Principles of argumentation; case analysis and construction, and practice in forms of debate.

- ◆ **IPCO 205. Public Speaking** (3) I, II. Principles of public communication composition and public speaking, including practice.

IPCO 303. Persuasive Communication (3) I, II, summer. Theories and concepts of persuasive communication; attitude change, audience analysis, and strategies of persuasion.

- ◆ **IPCO 304. Leadership in Group Communication** (3) I. Conceptions, methods, and techniques of leadership related to group communication processes. Emphasis is given to understanding and application of contingency theories. Prerequisite: IPCO 203.

- ◆ **IPCO 305. Human Communication** (3) I, II, summer. The development of theoretical understandings of communication. Theories considered are foundational to the application of communication knowledge in a wide variety of situations.

- ◆ **IPCO 306. Interpersonal Communication** (3) I, II, summer. Two-party communication, reduction of defensive climates as means of facilitating effective communication. Practical experiences in information seeking, persuasive, and personal encounters.

IPCO 307. Speech Communication in Organizations (3) I, II, summer. Message initiation, diffusion, and reception in organizational setting. Function and conduct of meetings, including both parliamentary procedure and relationships to organizational settings.

IPCO 310. Intercollegiate Forensic Activities (1) I, II. Similar to IPCO 110; for juniors and seniors. May be repeated to two credits.

IPCO 311. Contemporary Minority Voices (3) II. Alternate years. Contemporary minority communication and culture; coping strategies, nature of minority audiences, and discussion of political philosophies of various spokespersons for minority issues.

IPCO 335. Workshop on Current Topics (1-3). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. May be repeated on approval of adviser, if topics differ.

IPCO 402. Critical Analysis of American Public Communication (3) II. Principles of rhetorical criticism applied to studies of significant American communication events.

IPCO 406. Topics in Interpersonal and Public Communication (3) I, II, summer. Selected topics or subject areas within the field of communication, marital communication, legal speaking, assertiveness, and nonverbal communication. May be repeated.

IPCO 489. Communication Internship (1-10) I, II, summer. Field experience in communication. Study of communication as intern in public or commercial agency. Open only to IPCO students in bachelor of arts in communication degree program.

IPCO 490. Problems in Interpersonal and Public Communication (1-3) I, II. For advanced student who wishes to do intensive study in rhetoric, public address, or communication studies independently or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

Radio-Television-Film (RTVF)

RTVF 255. Introduction to Broadcasting (3) I. Survey of broadcasting industry in America. No prerequisites. Intended for majors.

RTVF 260. Broadcasting and Society (3) I, II, summer. Functions and effects of electronic media for individual and society.

RTVF 261. Understanding Movies (3) I, II, summer. Film as art. Essential elements of film; editing, camera work, sound and composition explored in some classic motion pictures. Various approaches to looking at movies and writing about them.

- ◆ **RTVF 262. Radio Writing, Announcing and Producing** (4) I. Writing for broadcasting; style and basic principles and practices of announcing; theories and processes of audio production. Laboratory hours.

RTVF 263. Television Programming and Production (4) II. Theories and practices involved in programming decisions; basic theory of television production. In-studio experience in operating cameras, film chain, audio board, character generator and switcher. Laboratory hours.

RTVF 264. 8mm Film Making (3) I, II. Basic techniques of 8mm motion picture photography. Understanding of lens, film, and camera characteristics, lighting, camera operation, and editing. Student furnishes camera and some materials.

RTVF 360. Procedures of Audience Measurement (3) II. Audience rating systems, significance and design. Aspects of broadcasting audience analysis, questionnaire design, sampling strategies, computer data analysis and presentation of results.

RTVF 364. Producing and Directing for Television (3) I. Theories and processes of producing, writing, and directing television program including film and portable video elements, opportunities for specialization in selected program types - news and public affairs, drama, documentary, variety, instructional. Laboratory hours. Prerequisite: RTVF 263 or equivalent experience.

RTVF 365. Broadcast History (3) I. Current U.S. broadcasting with view of antecedents in regulations, economics, programs, audiences, stations, networks, technology, and employment. Prerequisite: eight hours of RTVF.

RTVF 366. Processes and Effects of Mass Communication (3) I. Mass communication process and its effects, including topic legitimization, gatekeeping, social impact.

RTVF 368. Radio Workshop (1) I, II. Development of program ideas through all stages of planning, writing, directing, and selling. Individual program projects for possible use on WBGU or WFAL. May be repeated to three hours. Prerequisite: RTVF 262.

RTVF 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ on approval of adviser.

RTVF 460. Regulation of Broadcasting (3) II. Roles of federal, state and local government in regulation of broadcasting. Analysis of Federal Communications Commission. Legal problems engendered by regulation.

RTVF 464. 16mm Film Making (3) II. Concepts, theories, and mechanics of film production; applications of cinema to television news, documentaries, informational presentations, and feature and art film production. Lectures and laboratory. Prerequisites: RTVF 264 or JOUR 306 or VCT 282; and permission of instructor.

RTVF 466. History and Criticism of Film (3) II. Historical development of theatrical, documentary, and avant-garde films. Function, content, and style of film criticism.

RTVF 468. Television Workshop (3) I, II. Production of dramatic and public affairs television programs. Writing, producing, and directing emphasized. May be repeated once. Prerequisite: RTVF 364 or consent of instructor.

RTVF 469. Seminar: Contemporary Aspects of Broadcasting and Film (3) On demand. Investigation and analysis of area of radio, television, and film. Various topics of current concern; public and instructional broadcasting, audience, CATV, political broadcasting, censorship and freedom in film, film movements and styles. May be repeated with permission of adviser to six hours.

RTVF 489. Internship in Radio-Television-Film (1-6) I, II. Supervised field experience in electronic communication. Student must arrange for experience with approval of intern supervisor in advance of registration. May be repeated up to six hours. Limited to RTVF majors. Prerequisite: 2.5 overall GPA. Graded S/U.

RTVF 490. Problems in Radio-TV-Film (1-3) I, II. For advanced student who wishes to do intensive study in radio, television, or film independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

Speech (SPCH)

- ◆ **SPCH 102. Principles of Speech Communication** (3) I, II, summer. Basic principles of interpersonal, small-group, and public communication; field of speech communication, with attention to individual needs.

SPCH 351. Administration of Co-curricular Speech Programs (3) Summer. Required of all speech majors and minors in College of Education. Techniques for handling secondary co-curricular speech programs such as debate, forensics, and theatre. Field experiences required. Prerequisites for majors: EDCI 372 and IPCO 204 and THEA 241 and THEA 243 and THEA 341.

Theatre (THEA)

THEA 139. Dramatic Production (1) I, II. Laboratory course for student who participates as performer or technician in Firelands College productions. May be repeated to two hours. Any combination of THEA 139 and THEA 146 may not exceed two hours. Prerequisite: consent of instructor.

- ◆ **THEA 141. The Theatre Experience** (3) I, II, summer. Art of theatre; heritage and contemporary values as humanistic discipline; importance as social/cultural experience; opportunity for some involvement in theatrical activities.

- ◆ **THEA 146. Dramatic Production** (1) I, II, summer. Laboratory course for student who participates as performer or technician in University Theatre productions. May be repeated to two hours. Prerequisite: consent of theatre program. Graded S/U.
- ◆ **THEA 202. Oral Interpretation** (3) I, II, summer. Logical and aesthetic meaning in drama, prose, and poetry for oral performance; selection of materials for programs; and vocal and physical techniques of performance.
- ◆ **THEA 241. Principles of Acting** (3) I, II. Basic acting techniques; stage movement and speech; principles of imaginative, emotional, and sensory responsiveness. Three two-hour meetings per week.
- ◆ **THEA 243. Stagecraft** (3) I, II. Elements of behind the scenes theatre practice, scenery and costume construction, rigging, lighting, and sound; organization and operation of production crews. Laboratory hours arranged.
- THEA 302. Advanced Oral Interpretation** (3) II. Analysis and communication of logical and aesthetic meaning as found in drama and other significant literature. Experimentation with various forms of oral interpretation such as reader's theatre, chorale reading. Emphasis on advanced, individualized work. Prerequisite: THEA 202.
- THEA 339. Dramatic Production** (1) I, II. Laboratory course for student who participates as performer or technician in Firelands College productions. May be repeated to three hours. Any combination of THEA 339 and THEA 346 may not exceed three hours. Prerequisite: consent of instructor.
- THEA 340. Creative Dramatics** (3) I, II, summer. Principles, methods, and laboratory experience in guiding dramatics for preschool, elementary, and secondary school children, as well as recreation programs. Creative approach to dramatic play, language development, storytelling, and story dramatization.
- THEA 341. Directing** (3) I, II. Theory and techniques of play direction. Laboratory hours arranged. Prerequisites: THEA 141 and THEA 241 and THEA 243 or consent of instructor.
- THEA 342. Advanced Directing** (3) II. THEA 341 continued. Each student directs at least one short play or series of short scenes. Prerequisite: THEA 341. Laboratory hours arranged.
- THEA 343. Lighting Design** (3) I. Theories and techniques of lighting stage productions; lighting instruments and equipment.
- THEA 344. Intermediate Acting** (3) II. Study and experimentation in preparation of roles. Three two-hour meetings per week. Prerequisite: THEA 241 or consent of instructor.
- THEA 345. Advanced Acting** (3) I. Extensive work in speech and movement; individual acting problems through scene work. Three two-hour meetings per week. Prerequisite: THEA 241 and THEA 344 or consent of instructor.
- ◆ **THEA 346. Dramatic Production** (1) I, II, summer. Same as THEA 146 except for juniors and seniors. May be repeated to three hours. Prerequisite: consent of theatre program. Graded S/U.
- THEA 347. Major Periods of Theatrical History** (3) I. History of theatrical production (stage and auditorium architecture, machinery, scenery, lighting, acting, and costuming) in selected periods from primitive times to present.
- THEA 348. Literature of Theatre** (3) II. Major dramas, dramatists, dramatic criticism, and dramatic theory from Greeks to present.

THEA 349. Theatre Costume Design (3) I. Basic principles of costume design for the stage; development and rendering of design concepts; use of historic, stylistic and fantasy elements in stage character realization.

THEA 350. Milestones in Black Theatre (3) II. Read, research and discuss/report on the aesthetics, dramatic intent, historical significance and production history of milestone black plays.

THEA 352. Musical Theatre (3) II. The history, theory, and staging techniques of musical theatre production in the United States.

THEA 395. Workshop on Current Topics (1-3) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser.

THEA 443. Playwriting (3) I. Writer's workshop involving creation and production of original play for stage; discussion of process of playwriting and mounting a play for production. May be repeated.

THEA 444. Fundamentals of Scene Design (3) II. Designing for stage; dramatic action of script as organic element in design; effects of line, color, and mass on setting, decor, and lighting in enhancing action. Prerequisite: THEA 243 or consent of instructor.

THEA 446. Summer Theatre Performance (1-6) Summer only. Intensive laboratory work in study, preparation, and development of roles. Particular problems of performance in summer theatre. Prerequisite: consent of school.

THEA 448. Summer Theatre Production (1-6) Summer only. Intensive laboratory work in scenery construction and painting, stage lighting, organization, and operation of backstage crews and technical theatre. Particular problems of technical production in summer theatre. Prerequisite: permission of school.

THEA 449. Contemporary Issues in Theatre (3) On demand. Seminar for advanced students. Specific topics vary and depend on current trends in world theatre as identified by students and faculty members. Prerequisite: consent of instructor.

THEA 450. Summer Theatre Management (1-6) Summer only. Intensive laboratory work in various aspects of theatre management; publicity, box office, house management, public relations. Particular problems of management of summer theatre. Prerequisite: consent of school.

THEA 489. Theatre Internship (1-12) I, II, summer. Supervised field experience in theatre. Contract-based study of theatre principles as intern in public or theatre commercial company. Student must be recommended by adviser and approved by director of theatre program unit. Open only to students in bachelor of arts in communication degree program.

THEA 490. Problems in Theatre (1-3) I, II, summer. For advanced student who wishes to do intensive study in theatre, independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school (theatre program).

Technology, School of

Aerotechnology (AERT)

AERT 342. Flight Instruction I and II (3) I, II, summer. Aerodynamics, aircraft systems, charts, airports, communication procedures, meteorology, regulations, aviation publication, flight computer, medical facts, radio navigation, and cross country flight planning. Upon completion of course, students qualified to take FAA Private Pilot-Airplane written exam.

AERT 343. Flight Instruction III (1) I, II, summer. Includes 15 hours of solo and 20 hours of dual instruction specified as a minimum for FAR Part 141 private pilot training. License must be obtained to receive credit for course. Additional fees arranged with Aerotechnology coordinator. Prerequisite: AERT 342 or permission.

AERT 344. Commercial Ground School (1) II, On demand. Advanced aerodynamics and aircraft systems, commercial pilot operations, weight and balance, complex operation. Upon completion of course, students qualified to take FAA Commercial Pilot-Airplane written exam. Prerequisite: AERT 342.

AERT 345. Commercial Flight Instruction I (1) I, II, summer. Advanced flight maneuvers, night flight instruction, cross country flight training. First of two flight sequences leading to the Commercial Pilot-Airplane rating. Flight fees arranged with coordinator of aerotechnology. Prerequisite: AERT 343.

AERT 346. Commercial Flight Instruction II (2) I, II, summer. AERT 345 continued, includes commercial pilot flight maneuvers and complex aircraft flight training. Commercial Pilot-Airplane license must be obtained to receive credit for course. Prerequisite: AERT 345. Additional fee arranged with coordinator of aerotechnology.

AERT 401. Aviation Instructor Ground School (2) I, On demand. Presents learning theory in an aviation setting, instructor responsibility, lesson planning, and advanced aviation problems. Upon completion student qualified for FAA written exam Fundamentals of Instructing and either Basic Ground Instructor or Flight Instructor-Airplane. Prerequisite: AERT 344.

AERT 402. Instrument Ground School (3) II, On demand. Instrument flight planning, meteorology, approach procedures, approach chart interpretations and instrument flight communication. Upon completion students are qualified for the Instrument-Airplane written examination. Prerequisite: AERT 342.

AERT 403. Instrument Flight Instruction (1) I, II, summer. Dual flight instruction required for the FAR Part 141 Instrument rating. Flight fees arranged with coordinator of aerotechnology. Prerequisite: AERT 345 or permission.

AERT 490. Problems in Aerotechnology (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in aerotechnology. Prerequisite: consent of school. Graded S/U.

Construction Technology (CONS)

CONS 235. Introduction to Construction (3) I, II, summer. Basic concepts of construction techniques used today; includes office organization, building construction techniques, surveying, building materials, plan reading and estimating. Four hours of lecture and laboratory. Prerequisite: high school math. Sophomore standing recommended.

CONS 306. Light Building Construction I (3) I, II. Methods and materials involved in framing and enclosing residential and light commercial buildings. Manufactured and prefab components and structures; codes, plans and specifications; estimating and types of contracts and subcontract work for the small builder. Four hours of lecture and laboratory. Prerequisite: CONS 235 or consent of instructor.

CONS 307. Land Planning and Development (3) I, II. Land planning, zoning, and community and sub-division design; sub-surface utility systems, transportation systems, and other environmental considerations. Four hours of lecture and laboratory. Prerequisite: CONS 235; MATH 121 or equivalent.

CONS 318. Construction Surveying (3) II, summer. Classroom/field study of surveying equipment, such as, surveyors steel tape, transit and level. Emphasis on measuring distances, horizontal angles and vertical angles, determining elevations, calculating areas, layout of curves, cut and fill, building foundations, and mapping. Four hours of lecture and laboratory. Prerequisites: CONS 235 and good math background in algebra and trigonometry or TECH 121.

CONS 335. Commercial and Industrial Construction (3) I, II. Basic considerations or materials used in construction of commercial and civil complexes. Foundations and site-work; soils and concrete. Four hours of lecture and laboratory. Prerequisites: CONS 235 and DESN 301.

CONS 337. Heating, Ventilating, and Air Conditioning Systems (3) II. Mechanical systems that provide heating, ventilation, air conditioning cooling for building and production processes. Experience with conventional and solar mechanical systems; determining losses, make-up, system sizing, control. Methods, materials and problems encountered in installing systems stressed. Four hours of lecture and laboratory. Prerequisite: TECH 191 or CONS 235 or permission of instructor

CONS 406. Light Building Construction II (3) II. Advanced course in building construction; necessary materials; methods, and devices used in interior finishing of both residential and commercial facilities. Four hours of lecture and laboratory. Prerequisites: CONS 306 and CONS 335 or consent of instructor.

CONS 425. Introduction to Construction (3) I, II, summer. Basic concepts of construction techniques used today; includes office organization, building construction techniques, surveying, building materials, plan reading and estimating. Four hours of lecture and laboratory. For transfer students only.

CONS 435. Commercial, Industrial and Civil Construction (3) II. On demand. Advanced course in design consideration of methods and materials used in construction of reinforced concrete and steel frame buildings, pavements, sewers and airfields. Four hours of lecture and laboratory. Prerequisites: CONS 335, DESN 243, CONS 337.

CONS 437. Construction Equipment (3) I. On demand. Equipment fundamentals as related to construction operations. Ownership and operating costs and productivity of major construction equipment; frequent down-time items. Four hours of lecture and laboratory. Prerequisites: TECH 191 and CONS 235.

CONS 439. Estimating and Cost Control (3) II. On Demand. Designed to give basic tools needed to take off and price typical construction project. Final bid document including all materials, labor, equipment and overhead costs, and profit margin prepared for actual project. Four hours of lecture and laboratory. Prerequisite: CONS 335.

CONS 440. Construction Contracting (3) I. On demand. Project scheduling and control, bidding theories, safety in construction industry, construction contracts. Four hours of lecture and laboratory. Prerequisites: 20 hours of 300/400 level courses in CONS technology and senior standing.

CONS 490. Problems in Construction Technology On demand. For advanced students wanting to conduct intensive study of selected problems in construction technology. Prerequisite: consent of school. Graded S/U.

Design Technology (DESN)

◆ **DESN 104. Design and Engineering Graphics I (3)** I, II, summer. Design as process and engineering graphics as vehicle to communicate problem solutions. Documented design analysis, sketching, and instrument drawing applied to design problems involving industry and technology. Four hours of lecture and laboratory.

† **DESN 202. Mechanical Design (5)** II Alternate years. Design and selection of mechanical elements, fasteners, power transmission devices, hydraulics systems, manuals, catalogs, and publications utilized. Consideration of economy, loading conditions, stresses, deformation, fits and finishes in design. Three hours lecture, six hours laboratory. Prerequisites: DESN 104 and PHYS 201.

◆ **DESN 204. Design and Engineering Graphics II (3)** I, II, summer. Application of design analysis and engineering graphics to problems dealing with mechanical production design. Use of working drawings to communicate design solutions for surface development, jig and fixture, and tool and die design. Dimensioning and graphic techniques. Four hours of lecture and laboratory. Prerequisite: DESN 104.

† **DESN 205. Tool, Die, Jig and Fixture Design (4)** II alternate years. Importance and economics of tooling designed for mass production; topics include jigs, dies, design and construction emphasis placed on die design problems and solutions. Field visits to die stamping plants. Two hours lecture, six hours laboratory. Prerequisite: DESN 104.

† **DESN 210. Fluid Systems (2)** I, II. On demand. Hydraulic and pneumatic systems as used for industrial power control and transmission. Drawing and designing systems stressed. Prerequisites: TECH 191 and PHYS 201 or permission of instructor.

◆ **DESN 243. Statics and Strength of Materials (3)** I, II. Fundamentals of statics including vectors, centroids, moment of inertia, free body diagrams, and structural systems; strength of materials including the study of simply and combined stress, bending, shear, and torsional stress. Four hours of lecture and laboratory. Prerequisite: good math background in algebra and trigonometry or TECH 121.

DESN 301. Architectural Graphics I (3) I, II, summer. Architectural design and construction; development and use of elevation, plan, detail, and perspective drawings in planning and designing residential, business and industrial structures. Four hours of lecture and laboratory. Prerequisite: DESN 104 or permission of instructor.

DESN 304. Mechanical Design (3) I. On demand. Engineering graphics principles applied in design of structures, machines, production systems. Standard manuals and commercial catalogs used. Four hours of lecture and laboratory. Prerequisite: DESN 204.

DESN 305. Technical Illustration (3) II. Technical illustration for design presentation, assembly, repair and advertising. Variety of equipment, materials and techniques to accomplish various pictorial representations and design illustrations. Four hours of lecture and laboratory. Prerequisite: DESN 104.

DESN 314. Design and Engineering Graphics I (3) I, II. On demand. Each semester and summer. Design as process and engineering graphics as vehicle to communicate problem solutions. Documented design analysis, sketching, and instrument drawing applied to design problems involving industry and technology. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

DESN 336. Structural Design (3) II. On demand. The study of numerical methods to determine the reactions, shearing force, and bending stress necessary to size structure members. Emphasis on floor framing systems, columns, connections and trusses in steel and timber according to design codes. Four hours of lecture and laboratory. Prerequisite: DESN 243.

DESN 404. Computer Aided Design (3) II even numbered years. Study and application of computer graphics systems to the design process. Use of interactive methods for design purposes with plotted or video output. Programming subroutines for graphics, two and three dimensional views, and surface generation. Four hours of lecture and laboratory. Prerequisites: DESN 104, CS 101.

DESN 436. Planning and Design of Industrial Facilities (3) I even numbered years, summer. Planning, estimating, design, and modeling of industrial facilities with consideration of management, personnel, production, aesthetics, and environment. Four hours of lecture and laboratory. Prerequisite: DESN 301.

DESN 450. Architectural Graphics II (3) II odd numbered years. Man made environment considered through advanced problems in architecture and the related graphics of presentation. Four hours of lecture and laboratory. Prerequisite: DESN 301.

DESN 452. Design in Industry (3) I even numbered years. System approach applied to solution of one and two dimensional product design problems; emphasis on feasibility in production and use. Prerequisites: ART 212, DESN 104, DESN 204, DESN 404.

DESN 455. Engineering Design (3) I odd numbered years. Problems in engineering design in such areas as human factors, value engineering, CPM/PERT which require advanced engineering graphics for solution. Four hours of lecture and laboratory. Prerequisite: DESN 304.

DESN 490. Problems in Design Technology On demand. For advanced students wanting to conduct intensive study of selected problems in design technology. Prerequisite: consent of school. Graded S/U.

Electronic Technology (ET)

- †**ET 100. Energy Codes and Regulations** (1) II. Various federal, state and local codes which pertain to engineering technology; OSHA regulations, National Electric code and various EPA regulations. One hour of lecture.
- †**ET 147. Electricity** (3) I, II. Electron theory; DC circuit components; RLC circuits; power circuit concepts; 3 phase electric power; introduction to the use of electrical instruments. Two hours of lecture, four hours of laboratory. Prerequisite: TECH 121 or equivalent.
- †**ET 148. Electronics** (3) II, summer. Electronic devices; solid state and vacuum tube; application of electronic devices for power supplies, amplifiers, digital gates, oscillators and instruments. Two hours of lecture, four hours of laboratory. Prerequisite: ET 147.
- †**ET 201. Energy Production and Conservation Systems** (2) II. Principles, major elements, efficient operation of each part of a power plant system. One hour lecture, three hours laboratory. Prerequisite: ET 147 or consent of instructor.
- †**ET 244. Communication Circuits** (3) I. Fundamentals of communication circuits and amplifiers; amplifier design, components and applications, oscillators, communication components and principles of receivers and transmitters. Two hours of lecture, four hours of laboratory. Prerequisite: ET 245 or permission of instructor.
- †**ET 245. Communications Systems** (3) II. Applications of principles of communications circuits to large and complex systems. Techniques of transmission and radiation of electromagnetic energy applied to pulse television and microwave systems. Two hours of lecture, four hours of laboratory. Prerequisite: TECH 121 or equivalent.
- †**ET 247. Electrical Measurement and Instrumentation** (3) II. Electrical measurement and instrumentation devices, transducers and elements; principles underlying their design and use. Two hours of lecture, four hours of laboratory. Prerequisite: ET 148.
- †**ET 248. Industrial Equipment and Controls** (3) I. Automation and industrial control principles. Study and application of typical devices such as time control switches, motor controls, servo-mechanisms, photo-electric switches. Two hours of lecture and four hours of laboratory. Prerequisite: ET 148.
- †**ET 249. Digital Electronic Components and Systems** (3) I. Basic digital system logic analysis and synthesis techniques; number systems and codes; Boolean algebra and circuit minimization techniques. Characteristics of modern digital integrated circuit components. Two hours of lecture and four hours of laboratory. Prerequisite: ET 148.
- †**ET 290. Experimental Studies in Industrial Education and Technology** (1-3) I, II, summer. Experimental study projects, seminars and workshops dealing with topics in industrial technology.

ET 291. Energy, Power, Instrumentation and Control-Cybernetics (3) I, II, summer. On demand. Cybernetics, control system logic, instruments, sensors, control elements, and process regulation. Four hours of lecture and laboratory. Prerequisite: TECH 191.

ET 300. Electric Machinery Controls (3) Summer on demand, even numbered years. Electric motors, generators, assorted controls; operating characteristics, selection, testing of direct current single and three-phase machinery. Four hours of lecture and laboratory. Prerequisite: ET 291.

ET 347. Electricity (3) I, summer on demand. Electron theory; DC and AC units and theory; circuit component; circuit analysis techniques; RLC circuits; power concepts, use of test instruments. Four hours of lecture and laboratory. Prerequisite: TECH 191 or permission of instructor.

ET 348. Electronics (3) II, summer on demand. Electronic circuits, both analog and digital, plus semiconductors. Design and application of power supplies, amplifiers, oscillators, and digital gates to communication, instrumentation, and process control. Four hours of lecture and laboratory. Prerequisite: ET 347 or permission of instructor.

ET 357. Electrical Power Transmission (3) II. Power converters, polyphase distribution systems including conductors, transformers, voltage regulation, protection, control, phasing, and metering. Electrical codes, methods, and materials used in electric installation. Problems in electrical construction work. Four hours of lecture and laboratory. Prerequisite: TECH 191.

ET 358. Digital Electronics (3) I, summer on demand. Digital integrated circuit devices with medium and large scale applications. Digital families, their functions, use of specification sheets, discussion of digital system. Four hours of lecture and laboratory. Prerequisite: ET 348 or PHYS 201.

ET 441. Instrumentation (3) I, summer on demand. Industrial instrumentation. Measuring of mechanical, fluid, and electric phenomenon, transducers, recorders, indicators and controllers. Principles underlying their design and applications. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.

ET 442. Digital Computer Analysis (3) II, summer on demand. Organization and construction of mini-micro computers, machine language programming, interfacing, including developing logic design, selection of integrated circuits, assembly, testing and system diagnostic testing procedures. Four hours of lecture and laboratory. Prerequisite: ET 358 or consent of instructor.

ET 443. Solid State Devices (3) II even numbered years, summer on demand. Semiconductor devices operational amplifiers, MOS memories, SCR, unijunction and FET transistors. Theory of operations, manufacturing procedures, parameter specifications, performance, testing and applications. Four hours of lecture and laboratory. Prerequisite: ET 348 or consent of instructor.

ET 453. Digital Computer for Process Control (3) II, summer on demand. Industrial process control-utilizing mini and/or micro computers. Organization and operation of computers, various process control modules (A/D and D/A), signal conditioning and converting, and design of process control system. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.

ET 490. Problems in Electronic Technology (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in electronic technology. Prerequisite: consent of school. Graded S/U.

ET 491. Energy, Power Instrumentation and Control - Cybernetics (3) I, II, summer on demand. Control system logic, instruments, sensors, control elements, and process regulation. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

Industrial Environment Technology (ENVR)

ENVR 421. Industrial Pollution Control (3) I. Air and water pollution control regulations as they apply to industry. Functioning and selection of parameters of industrial pollution control equipment and selected case studies.

ENVR 490. Problems in Industrial Environment Technology (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in industrial environment technology. Prerequisite: consent of school. Graded S/U.

Industrial Education (IE)

IE 252. Elements of Instruction (3) I. Models of instruction as related to learner and functions and purposes of specialized career and technology education programs on all educational levels including individual observation and participation at various levels.

IE 352. Instructional Scope and Sequence (3) II. Design and implementation of instructional systems including performance objectives, appropriate content, teaching-learning strategies, and evaluation in specialized career and technology education programs on all educational levels including individual observation and participation at various levels. Prerequisite: IE 252.

IE 428. Development of Training Programs (3) II even numbered years, on demand. Design production and evaluation of training programs for industry and business. Task analysis work design, and cost analysis in development of training programs.

IE 447. Teaching Technology Systems (3) I. Integration and use of principles developed in previous methods courses and laboratory settings; selection, organization, adaptation, and use of instructional materials or curriculum projects related to industrial technology systems. Prerequisite: MFG 214, CONS 235.

IE 449. Organization and Administration (3) I. Financial and business procedures, program, laboratory, and equipment planning; maintenance programs, classroom and laboratory management systems; purchasing, storage, dispensing and inventory control procedures; public relations, cocurricular responsibilities, innovative programs. Prerequisites: IE 352 and IE 497.

IE 462. Career and Technology Education in Elementary Schools (3) II, summer, on demand. Development and evaluation of instructional activities to facilitate career development and understanding of technology among elementary children. One one- and-one-half-hour lecture and two one- and-one-half-hour laboratories.

IE 470. Coordinating Cooperative Education Programs II, odd numbered years. Prepared coordinator of cooperative work education programs in all phases of career and technology education. Readings, discussions, and field experiences designed to develop understanding of various types of cooperative programs, role of coordinator, and related instruction.

IE 490. Problems in Industrial Education On demand. For advanced student wanting to conduct intensive study of selected problems in industrial education. Prerequisite: consent of school. Graded S/U.

IE 492. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required for elementary and/or kindergarten-primary certification. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

IE 497. Student Teaching (1-10) I, II. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Required of students in secondary school or special certification program. Fee: \$5 per credit hour. Eligibility requirements must be met. C/F hrs: 300. May be repeated. Graded S/U.

Manufacturing Technology (MFG)

◆ **MFG 113. Non-Metallic Materials and Processes (3)** I, II, summer on demand. Processing equipment, methods, operations, procedures, and design utilized in production of non-metallic products; raw materials sources; methods of conversion and testing. Four hours of lecture and laboratory.

◆ **MFG 114. Metallic Materials and Processes (3)** I, II, summer on demand. Materials properties, fabricating equipment and methods and procedures used in production of metallic products. Four hours of lecture and laboratory.

† **MFG 211. Manufacturing Processes II – Forming, Combining (3)** Alternate years. Traditional and non-traditional forming and combining processes in plastics; extrusion, injection, compression, vacuum, fiberglass, rotation and other processes stressed. Emphasis on industrial applications. Field visits to plastics processing plants. Two hours lecture, three hours laboratory. Prerequisite: MFG 113.

† **MFG 213. Non-Traditional Manufacturing Processes II (3)** II. Alternate years. Numerical control, EDM, advanced machining and material removal. Programming, testing, and cutting with numerical controlled and standard metal cutting tools. Two hours lecture, three hours laboratory. Prerequisites: MFG 114 and AMS 100.

◆ **MFG 214. Manufacturing Processes (3)** I, II, summer on demand. Production methods, processing equipment, tooling, organization and control employed in manufacturing industries. Four hours of lecture and laboratory. Prerequisites: MFG 113, MFG 114.

† **MFG 215. Metallurgy and Metrology (3)** Alternate years. Physical metallurgy and heat treatment of metals; metal structure, alloys, tool steels, tempering, and powder metallurgy. Study of instruments and machines for measuring dimensions and surface finishes of machine tools. Two hours lecture, three hours laboratory.

MFG 311. Machine Tool Processes I (3) I, summer on demand. Setup and operation of precision metal processing machine tools. Tool preparation and introduction to numerical control programming. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 114.

MFG 323. Wood Processing Technology (3) II. Advanced study of wood and wood-composite materials, processing methods, and product applications. Four hours of lecture and laboratory. Prerequisite: MFG 113 or permission of instructor.

MFG 329. Plastics Processing Technology (3) I. Identification, properties, characteristics, and selection of plastics materials. Set-up and operation of primary and secondary plastics processing equipment. Basic mold design and construction. Two one-hour lectures and one two-hour laboratory per week. Prerequisite: MFG 113.

MFG 333. Non-Metallic Materials and Processes (3) I, II, summer, on demand. Processing equipment, methods, operations, procedures, and design utilized in production of non-metallic products; raw material sources; methods of conversion and testing. Four hours of lecture and laboratory. For transfer students only. Obtain permission of school.

MFG 334. Metallic Materials and Processes (3) I, II, summer on demand. Materials properties, fabricating equipment, and methods and procedures used in production of metallic products. Four hours of lecture and laboratory. For transfer students only. Obtain permission of school.

MFG 338. Materials and Metallurgy (3) II. Metallurgical structure and its effects on properties of ferrous and nonferrous metals and alloys. Properties of metallic and nonmetallic materials that affect their selection and performance in industrial products. Four hours of lecture and laboratory. Prerequisites: MFG 113 and MFG 114.

MFG 361. Welding Processes I (3) I, summer on demand. Welding processes in joining metals, strength of materials in welded joints, technological developments in the welding industry. Skill emphasis on flat and horizontal using SMAW and oxy-acetylene. Four hours of lecture and laboratory. Prerequisite: 114 or consent of instructor.

MFG 424. Manufacturing Processes (3) I, II, summer. On demand. Production methods, process equipment, tooling, organization and control employed in manufacturing industries. Four-and-one-half hours lecture and laboratory. Prerequisites: MFG 113, 114. Obtain permission of school.

MFG 426. Quality Assurance (3) I, II. Use and selection of inspection equipment, planning and controlling of quality at strategic points in manufacturing process, and assurance of receiving, fabricating, and shipping acceptable materials. Two one-hour lectures and two hours of laboratory. Prerequisites: MFG 214 and MATH 115, or consent of instructor.

MFG 427. Work Measurement and Analysis (3) I, II. Design and measurement of work and techniques of setting work standards to effectively use tools, equipment, and manpower. Work measurement and application of principles of motion economy in practical situations. Two one-hour lectures and two hours of laboratory. Prerequisite: MFG 214 or consent of instructor.

MFG 451. Casting Processes (3) odd numbered years. Foundry operations in industry. Pattern making, core making, molding, melting, furnace operation, pouring of metals, and cleaning of castings. Four hours of lecture and laboratory. Prerequisite: MFG 114.

MFG 458. Machine Tool Processes II (3) II even numbered years, summer on demand. Advanced precision metal machine tool processes, production machines, and related tooling problems. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 311.

MFG 459. Ceramics Processing Technology (3) I even numbered years. Materials and processing methods employed in the ceramic industries. Materials selection, batch and body making, basic mold design and construction. Four hours of lecture and laboratory. Prerequisite: MFG 113 or consent of instructor.

MFG 461. Sheet Metal Forming and Fabrication (3) II odd numbered years. Methods of pattern development, forming and fabrication methods used in sheet metal processing. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 114.

MFG 463. Welding Processes II (3) II, summer on demand. Welding of metals using oxy-acetylene, electric arc, MIG and TIG processes including welding metallurgy; weld testing; design and construction of welded items; new technology development in welding. Skill emphasis on horizontal, vertical and overhead welding. Four hours of lecture and laboratory. Prerequisite: MFG 361.

MFG 490. Problems in Manufacturing Technology (1-5) On demand. For advanced students wanting to conduct intensive study of selected problems in manufacturing technology. Prerequisite: consent of school. Graded S/U.

Technology (TECH)

TECH 121. Industrial Mathematics (3) I, II, summer. Mathematics as applied in industry and technology. Problems in geometry, algebra, trigonometry and calculus.

◆ **TECH 152. Introduction to Technology – The Man-Made World (3)** I, II, summer. Through active participation in a variety of individual, small group, and class problem solving activities, students are introduced to principles and developments which consider technology as shaper of the man-made world, man's career and other roles, and influencing the future.

◆ **TECH 191. Energy, Power, Instrumentation, and Control – Mechanization (3)** I, II, summer on demand. Mechanization, energy conversion into useful electrical, fluid, or mechanical power and associated transmission, instrumentation, and controlling devices. Four hours of lecture and laboratory.

† **TECH 218. Management and Supervision (2)** I. Responsibilities of management and supervision within manufacturing industries; organization, duties and responsibilities, human relations, training, promotion, and management-employee relations. Use of case studies and personal experiences of guest speakers.

TECH 223. Mechanical Power Transmission (3) II odd numbered years. Mechanical drive systems and applications. Design, operation, maintenance of mechanical power systems used in industry. Four hours of lecture and laboratory. Prerequisite: TECH 191.

TECH 289. Cooperative Education (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's intended areas of concentration. Prerequisites: consent of department. Graded S/U.

†**TECH 291. Student Intern Program** (3) I, II, summer. Ten weeks of paid field work in engineering technology under supervision of regulatory agency or private industrial concern. Prerequisite: consent of instructor.

TECH 313. Handicrafts (3) I, II, summers on demand. Creative possibilities inherent in wide variety of materials and tool operations. Development of lifetime recreational interests, and abilities to direct activities in schools, camps for handicapped, and adult education. Four hours of lecture and laboratory.

TECH 322. Introduction to Technology – Man-made World (3) I, II, summer. Active participation in individual, small group, and class problem solving activities. Principles and developments which consider technology as shaper of man-made world, man's career and other roles, influence on the future. For transfer students only. Obtain permission of school.

TECH 323. Fluid Power Transmission (3) Odd numbered years. Pumps, motors, valves, circuits, applications of hydraulic and pneumatic power systems. Design, operation, maintenance of fluid power systems used in industry. Four hours of lecture and laboratory. Prerequisite: TECH 191.

TECH 389. Cooperative Education (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's area of concentration. Prerequisite: TECH 289. Graded S/U.

TECH 391. Internal Combustion Engines (3) I, II, summer on demand. Student chooses to study Otto (gasoline) or diesel cycles engines; emphasizes fundamentals of assembly, disassembly, testing and measurement procedures. One one-hour lecture and two two-hour laboratories. Prerequisite: TECH 191 or consent of instructor.

TECH 392. Energy, Power, Instrumentation, and Control – Mechanization (3) I, II, summer on demand. Mechanization, energy conversion into useful electrical, fluid or mechanical power and associated transmission, instrumentation and controlling devices. Four hours of lecture and laboratory. For transfer students only. Obtain permission of department.

TECH 454. Energy Conversion and Power Transmission (3) On demand. Existing and developing systems of energy conversion and power problems of fuel efficiency, pollution, potential, maintenance and application. Four hours of lecture and laboratory. Prerequisite: TECH 191.

TECH 457. Handicrafts for Recreation, Therapy and Teaching Professions (3) I, II, summer on demand. Creative possibilities using various materials and tools in development of personal lifetime recreational interests and skill in directing others in such activities. Four hours of lecture and laboratory. Prerequisite: TECH 313 or permission of instructor.

TECH 489. Cooperative Education (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's intended areas of concentration. May be repeated to six hours. Prerequisite: TECH 389. Graded S/U.

TECH 490. Problems in Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in technology. Prerequisite: consent of school.

Visual Communication Technology (VCT)

VCT 203. Visual Communication Technology (3) I, II, summer. Visual communication theory and processes; television production, film making, continuous tone photography, slide presentations, multimedia production and image transfer systems. Four hours of lecture/laboratory.

◆**VCT 208. Graphic Communications** (3) I, II, summer. Overview of major printing processes; concentration in offset lithography; line-photography, study and experiences in image design, image assembly, photo conversion, image carrier preparation, and image transfer. Four hours of lecture/laboratory.

VCT 209. Screen Process Printing (3) I, II, summer. Hand cut and photographic screen process image conversion; single and multiple color process. Four hours of lecture/laboratory.

VCT 282. Photography I (3) I, II, summer. Introductory course concentrating on basic camera and darkroom techniques. Experiences in film processing and printing techniques as well as basic camera operation. Four hours of lecture/laboratory.

VCT 308. Photo Offset Printing (3) I, II, summer. "Prepress" areas of graphic reproduction. Art preparation techniques, typography, line and halftone photography, exposure calibrating, and tone reproduction printing requirements. Cold type composition, spacing and copyfitting. Four hours lecture/laboratory.

VCT 309. Photo Offset Printing II (3) I, II, summer. Stripping, imposition procedures, and platemaking; offset lithographic printing press theory, maintenance and operation. Ink and paper in relationship to offset presswork. Theory and practical experience in four-color-process reproduction. Four hours lecture/laboratory.

VCT 382. Photography II (3) I, II, summer. An in-depth course dealing with sensitometric characteristics of film, problem solving for specific photo problems and using techniques to produce consistent, quality negatives and prints. Four hours lecture/laboratory. Prerequisite: VCT 282.

VCT 386. Animation Technology (3) I, II, summer. Types and techniques of animation and animated films. Structured experiences in producing simple film and effector animations. Four hours lecture/laboratory. Prerequisite: 203 or RTVF 364.

VCT 456. Color Process Photography (3) I, II, summer. In-depth study of process photography for reproduction of photographs and illustrations in black and white and color. Halftones, duotones (black and color), mechanical color separation, photographic four-color-separation, color posterization, and color proofing systems. Four hours lecture/laboratory. Prerequisite: VCT 208 and VCT 308 and VCT 309.

VCT 460. Photography (3) I, II, summer. Research and experimentation in special effects photography and creative darkroom techniques. Four hours lecture/laboratory. Prerequisite: VCT 282.

VCT 465. Photography in Commerce and Industry (3) I, II, summer. Advanced camera and lighting techniques, studio and darkroom design and management as applied to commercial and industrial photographic fields. Four hours lecture/laboratory. Prerequisite: VCT 282, VCT 382, and ART 211.

VCT 466. Projected Communication (3) I, II, summer. Communication problem solving through exploration and experimentation in 35mm slide presentations; techniques in multi-screen, multi-image, and multimedia. Four hours lecture/laboratory. Prerequisites: VCT 208 and VCT 282.

VCT 467. Visual Communications Technology Synthesis (3) I, II, summer. Techniques of problem solving; aesthetic and technical qualities of presentation. Four hours lecture/laboratory. Prerequisites: VCT 208, VCT 308 and ART 211 plus senior standing.

VCT 468. Video Tape Recordings in Visual Communications Technology (3) I, II, summer. Both 1/2" and 3/4" video tape productions. Television recording theory, production designing, and planning and use techniques with sub-professional equipment. Four hours lecture/laboratory. Prerequisites: VCT 203 and RTVF 263.

VCT 482. Photography III (3) I, II, summer. Fundamentals of the Zone System and introduces large format photography. Emphasis on learning the structure of the Zone System and its application to all areas of photography. Four hours lecture/laboratory. Prerequisites: VCT 282 and VCT 382.

VCT 490. Problems in Visual Communication Technology (1-3) On demand. For advanced students wanting to conduct intensive study of selected problems in visual communication technology. Prerequisite: consent of school and instructor. Graded S/U.

Graduate Courses

Accounting and Management Information Systems (ACCT)

ACCT 621. Evolution of Accounting Thought (3)

Evolution of more important aspects of accounting theory under impact of changing conditions over several centuries. Emphasis on first half of 20th century. Prerequisite: 16 hours of accounting.

ACCT 622. Contemporary Accounting Theory (3). Analysis and evaluation of current accounting thought relating to nature, measurement, and reporting of financial conditions and results of operations. Special attention to controversial issues. Prerequisite: 16 hours of accounting.

ACCT 623. Income Theory (3). Historical development of income concepts and relationship to modern income theory. Measurement and communication problems: nature of income. Accounting income and role in resource allocation. Prerequisite: 16 hours of accounting.

ACCT 631. Seminar in Managerial Accounting (3). Extension of accounting services to operational problems of the firm, basic concepts of control system, planning, management's use of financial data, and applications of quantitative techniques to administrative decision-making processes. Prerequisites: ACCT 332 or equivalent and GBA 663 or equivalent.

ACCT 643. Seminar in Tax Accounting (3). Current tax laws and regulations; tax planning, effect of taxes on managerial decision process. Emphasis on usage of research techniques in application of taxation decisions. Prerequisite: ACCT 441 or equivalent.

ACCT 654. Seminar in Auditing (3). Audit concepts, standards, and procedures. Ethics and legal responsibility; scope, objectives, and nature of audit, management of audit, auditing techniques, statistical sampling in auditing, audits of electronic systems, auditor's role in tax and management advisory services. Prerequisite: ACCT 451 or equivalent.

ACCT 670. Readings in Accounting (1-3) On demand. Independent study and research in accounting. Proposed program of study must be approved by instructor and graduate adviser prior to registration. May be repeated with consent of graduate adviser.

ACCT 686. Seminar in Accounting (1-3) On demand. Study of special topics in accounting. Content varies over time. May be repeated with consent of graduate adviser.

ACCT 687. Research Seminar in Accounting (1-3). Research procedures and techniques in accounting.

ACCT 699. Thesis Research (1-6). Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable towards degree. Minimum acceptable total for degree is four hours.

Courses for graduates and undergraduates

ACCT 421. Advanced Financial Accounting (3) I. Theory and practice for business combinations and consolidations, partnerships, branch and home office accounting, financial reporting for multinationals including foreign currency translation. Prerequisite: grade of C or better in ACCT 322.

ACCT 422. Contemporary Financial Accounting Topics (3) II. Theory and implications for accounting practice of selected contemporary financial accounting topics. Topics vary with governmental and professional bodies' pronouncements impacting on financial accounting. Prerequisite: grade of C or better in ACCT 322.

ACCT 423. Accounting for Non-Profit (3) II. Methods and problems of controlling and reporting on resources (funds) segregated for conducting specific activities of non-profit-seeking entities; budgetary control. Prerequisite: grade of C or better in ACCT 322 or consent of instructor.

ACCT 424. Financial Reporting for Multinationals (3) II. Alternate years. Case study of worldwide accounting control and reporting problems, impact of cultural and legal constraints, and objective appraisal of various accounting principles and pronouncements. Prerequisite: grade of C or better in ACCT 322.

ACCT 429. Problems in Accounting Practice (3) II. Comprehensive review and integration of accounting theory and practice using problem method. Prerequisites: 16 hours of accounting and grade of C or better in ACCT 322.

ACCT 439. Role of the Financial Executive (3) II. Capsione case study of accountant's role in management planning and control; profit centers, discretionary costs, budgeting, strategy, and evaluation of enterprise performance. Prerequisite: grade of C or better in ACCT 332 or in ACCT 337 or consent of instructor.

ACCT 441. Introduction to Federal Taxation (3) I, summer. History, assumptions, and objectives of the federal tax system. Determination of an entity's taxable and nontaxable incomes, capital gains and losses, deductions and exemptions, and special provisions. Reporting requirements and determination of tax liability. Introduction to federal tax research methodology. Prerequisite: grade of C or better in ACCT 322 or grade of C or better in ACCT 321 if concurrently registered for ACCT 322.

ACCT 442. Advanced Federal Taxation (3) II. Determination of taxable income and reporting requirements unique to corporations, partnerships, and Subchapter S corporations. Application of federal tax laws to special problems of corporations including stock redemptions, capital structure, liquidation, and corporate accumulations. Overview of federal taxation of gifts, estates, and trusts. Prerequisite: grade of C or better in ACCT 441.

ACCT 452 (3) II. The auditor's role in society; auditing standards, professional ethics, the accountants' legal liability, the auditor's report. Case studies in applied auditing. Prerequisite: grade of C or better in ACCT 451 or consent of instructor

American Culture (AMC)

AMC 595. Workshop on Current Topics in American Culture Studies (1-4) I, II, summer. On demand. Workshops designed for current topics and issues of an interdisciplinary nature. Topics vary from quarter to quarter.

AMC 635. Interdisciplinary Seminar (1) I, II, summer. Professional seminar synthesizing American culture studies goals, topics, and techniques. May be repeated up to 3 credit hours.

AMC 670. Special Problems in American Culture (1-3) I, II, summer. Individual or group study of some phase of American culture not ordinarily offered in curriculum. Prerequisites: consent of instructor and consent of executive committee. (Doctoral-level credit).

AMC 680. Topics in American Culture Studies (3) I, II, summer. Examination of selected topics of subject areas which are especially appropriate for an interdisciplinary approach and treatment. May be repeated.

AMC 689. Internship (1-6) I, II, summer. On demand. Supervised experience within setting related to one's academic specialization. Proposed field placement registration must be approved by program area prior to registration. May be repeated on approval. Graded S/U.

AMC 730. Seminar in Theories of American Culture Studies (3) II. Examination of theories of American culture studies as applicable to new field of American culture.

AMC 750. Practicum in American Culture (2) II. Introduction to and supervised practice in variant methods of approach to aspects of American culture, using theme or chronological period as basis.

AMC 770. Problems in Research (1-3) I, II, summer. Individual problems in advanced research not involved in dissertation and ordinarily not offered in curriculum. Prerequisites: consent of instructor and approval of executive committee. Graded S/U.

AMC 780. Seminar in American Culture Studies (3) I, II, summer. Examination of a topic in American culture studies which is particularly appropriate for an interdisciplinary approach and treatment. May be repeated.

AMC 799. Dissertation Research (1-12) I, II, summer. Student must register for minimum of 16 hours in this course while working on doctoral dissertation. May be repeated to 30 hours in degree program.

American Studies (AMST)

AMST 570. Readings in American Studies (1-3) I, II. May be repeated.

AMST 580. Topics in American Studies (3) I, II. Study of selected topics or subject areas which are particularly fitted to an interdisciplinary approach and treatment. May be repeated.

AMST 581. Seminar in American Studies (3) I, II. Annually in rotation by departments in program. May be repeated.

AMST 589. Internship (1-6). Supervised experience within setting or institution related to area of American studies. Must be approved by graduate adviser prior to registration. Graded S/U.

AMST 597. Methods and Theories (3) I. Historical perspectives on American studies; theories and concepts related to methods; new trends and directions in scholarship.

AMST 599. Thesis Research (1-6) I, II. Credit for thesis study. Present total established by American studies committee is three hours.

Applied Statistics and Operations Research (STAT, OPRE)

STAT 510. Statistical Methods (3). Accelerated course in statistics with applications to business problems; designed for first-year MBA student without undergraduate preparation in statistics.

STAT 511. Regression and Design (3). Regression analysis, topics in design of experiments. Prerequisites: STAT 510 and MATH 125 or equivalents.

STAT 530. Applied Multivariate Analysis (3). Multivariate normal distribution; multivariate procedures for estimation and inference. Prerequisite: MATH 542 or consent of instructor.

STAT 531. Linear Models (3). Distribution of quadratic forms; estimation and statistical inference for regression and experimental design models. Prerequisites: STAT 402 and STAT 530.

STAT 550. Statistical Consulting (1-3). Individualized instruction and in-depth experience in all phases of statistical consulting. Prerequisite: background in mathematical statistics, regression, and design of experiments. Same as MATH 550. Graded S/U.

STAT 570. Independent Study in Statistics (1-3). Individual or group study of problem area in statistics. Prerequisite: consent of adviser.

STAT 597. Research Methods in Statistics (3). Training in research methodology in statistics through lectures, seminars, consulting, and individual projects. Prerequisite: consent of adviser.

STAT 598. Directed Research in Applied Statistics (1-3). Systematic study of selected topics in statistics. Does not count toward graduation requirements. Graded S/U.

STAT 599. Thesis Research (1-3). Credit for thesis study. Minimum acceptable total for degree is three hours. Prerequisite: consent of adviser.

Courses for graduates and undergraduates

STAT 402. Regression Analysis (3) I. Linear, nonlinear, and multiple regression and correlation analysis. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

STAT 404. Time Series Analysis (3). Stochastic stationary and nonstationary models; use in forecasting seasonal and nonseasonal discrete time series; fitting models to time series data. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

STAT 406. Sample Design (3) II. Sampling as a tool of scientific inference in research and management. Planning surveys; sample size, stratified, systematic, and cluster sampling; sources of error in surveys. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

STAT 410. Experimental Design (3) II. Constructing statistical designs and analyzing resulting data; basic experimental design and analysis of variance. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

STAT 412. Applied Nonparametric Statistics (3). Nonparametric approach to testing hypothesis: contingency tables, goodness of fit, procedures based on ranks. Prerequisite: STAT 315 or MATH 442 or consent of instructor.

STAT 414. Statistical Quality Control (3). Statistical process control; Shewhart control charts (variables and attributes); acceptance sampling (single, double, and sequential); Dodge-Romig Tables. Prerequisites: STAT 212 or MATH 442 and one additional STAT course or consent of instructor.

OPRE 480. Linear and Integer Programming (3). Modeling industrial and public administration problems via linear and integer programming; sensitivity analysis; parametric programming; dual, cutting plane methods; branch and bound methods; current topics in integer programming. Prerequisite: OPRE 380.

OPRE 485. Introduction to Stochastic Models (3). Problems of incorporating risk into decision models; queuing theory; stochastic inventory models; Markov chains; stochastic mathematical programming. Prerequisite: OPRE 380. STAT 315 recommended.

OPRE 487. Network Theory and Special Topics in Mathematical Programming (3). Modeling industrial and public administration problems via network models; PERT transshipment, assignment, shortest route, maximal flow; out-of-kilter algorithm; goal programming; advanced topics in mathematical programming. Prerequisite: OPRE 480.

OPRE 488. Theory of Inventory Systems (3). Theory and techniques of constructing and analyzing mathematical models of inventory systems; models under stochastic conditions. Prerequisite: OPRE 485.

OPRE 489. Applied Nonlinear and Dynamic Programming (3). Quadratic and separable programming; gradient projection; penalty function and search methods. Dynamic programming with discrete and continuous variables, and its relationship to linear programming; geometric programming; applications in industry and public administration. Prerequisite: OPRE 480 or consent of instructor.

Art (ART)

ART 506. Drawing From Life (3) I, II. Advanced problems in drawing and composition. Six studio hours. May be repeated to 12 hours.

ART 521. Jewelry Design and Enameling (3) I, II. Use of metals in jewelry making; design and development of skill in manipulation of tools and materials. Six studio hours. May be repeated to 30 hours. Lab fee.

ART 525. Advanced Problems in Creative Photography (3) I, II. Advanced level assignments in creative photography; development and growth of individual creative expression. Six studio hours. Prerequisite: ART 450 or consent of instructor.

ART H543. American Art Seminar (2) I, II. Intensive study of period or problem in American art. Prerequisite: ART 441 or 442.

ART 561. Sculpture (3) I, II. Development of abstract forms, figure modeling, and advanced sculptural media. Six studio hours. May be repeated to 30 hours.

ART 563. Ceramics (3) I, II. Ceramic production. Correlation of technical research and personal concepts. May be repeated to 30 hours. Prerequisite: six hours in ceramics, including glaze calculation. Sculpture experience strongly recommended.

ART 565. Weaving (3) I, II. In-depth study of fiber/weaving techniques for their potentials in conceptual and functional forms. Six studio hours. May be repeated to 30 hours.

ART H570. Art History Problems (3) I, II. Individual research problems in any part of art history. May be repeated to 6 hours. By permission only.

ART 571. Watercolor Painting (3) I, II. Exploration of techniques, formal and expressive possibilities of watercolor medium. Six studio hours. May be repeated to 30 hours.

ART 573. Oil Painting (3) I, II. Exploration of techniques, formal and expressive possibilities of oil medium. Six studio hours. May be repeated to 30 hours.

ART 577. Printmaking (3) I, II. Aesthetic potentials of graphic techniques. Six studio hours. May be repeated to 30 hours.

ART 579. Individual Study Problems (3) I, II. Supervised individual problems in selected studio areas. Six studio hours. May be repeated to 9 hours. Permission of instructor and graduate adviser.

ART H580. Seminar in Art History (2) I, II. Supervised individual problems in selected art history areas. May be repeated to 8 hours. Permission of instructor and graduate adviser.

ART 581. Seminar in American Studies (3) I, II. An interdisciplinary seminar coordinated in rotation by faculty members of School of Art and departments of English, history, philosophy, political science, and sociology, using lectures and subsequent discussion and papers to study problem, theme, or era.

ART H582. Seminar in Ancient Art (2) I, II. Selected topics normally in Aegean or Greek art; occasionally, Near Eastern or Roman art.

ART H583. Seminar in Recent Art (2) II. Topics in nineteenth and twentieth century art; schools, movements, trends, artists, or concepts.

ART 595. Workshop on Current Topics in Art and Art Education (1-4) On demand. Workshops designed for current topics and issues in discipline; topics vary from quarter to quarter.

ART 597. Research Techniques (1) I. Introduction to graduate study in art and applied study of materials and methods of research; emphasis on those appropriate to fields of art, art education, and art history. Must be taken as early during student's academic program as practicable, preferable during first semester in residence. (For students beginning in January, should be taken following autumn.)

ART 599. Thesis Research (1-6) I, II, summer. Credit for thesis study. Enrollment in excess of four hours acceptable for plan I master's degree, but no more than three hours creditable toward degree.

Courses for graduates and undergraduates

ART H440. Modern Architecture (3) Alternate years. Architecture of the 19th and 20th centuries in Europe and America.

ART H441. American Art to the Civil War (3) I. Painting, sculpture, and architecture of the colonial era and the United States to 1860. Emphasis on the interrelationship between the visual arts and significant issues in American culture.

ART H442. American Art since the Civil War (3) II. Painting sculpture, architecture, and photography of the United States from 1860 to the present. Special attention to artists and developments prior to WW II frequently overlooked in surveys of modern art.

ART H445. Art of Ancient Greece (3) I. Art and archaeology of Greece from the preclassical Aegean World through the Hellenistic period.

ART H446. Art of Ancient Rome (3) I. Sculpture, architecture and painting of the ancient Etruria and Rome from the eighth century B.C. to fourth century A.D.

ART H449. Medieval Art (3) I. Alternate years. Art and architecture from the Medievalization of the Roman Empire through the High Gothic period.

ART H451. Renaissance and Baroque Art in Southern Europe (3) I. Alternate years. Painting, sculpture and architecture in Italy and Spain from the early 14th through the 17th century.

ART H454. Renaissance and Baroque Art in Northern Europe (3) II. Alternate years. The art of England, Flanders, France, Germany, and Holland between 1400 and 1750, with primary emphasis on painting. Iconographic analyses as well as studies of stylistic developments will be stressed.

ART H455. Art of the 19th Century (3) I. Painting and sculpture in the 19th century, from neoclassicism through post-impressionism.

ART H456. Art of the 20th Century (3) II. Painting and sculpture in 20th century Europe and America, from Fauvism to the present.

ART H458. Art of India and S.E. Asia (3) I. Art and architecture in India and S.E. Asia from the earliest times to the present.

ART H459. Art of China and Japan (3) II. Art and architecture of China and Japan from the earliest cultures to the present.

Biological Sciences (BIOL)

BIOL 502. Biostatistics (4) I. Principles of experimental design and methods of statistical analysis of biological data. Three one-hour lectures, one two-hour laboratory.

BIOL 513. Molecular Genetics Laboratory (2) II. Techniques used in detecting and affecting genetic phenomena involving bacteria and bacteriophages, including recombinant DNA methodology. Two 3-hour laboratories. Prerequisites: BIOL 447 or 552 or concurrent enrollment. Microbiology or biochemistry lab recommended.

BIOL 515. Advanced Animal Physiology (3) I Alternate years. An in-depth consideration of the physicochemical principles underlying physiological function of selected animal systems. Three one-hour lectures. Prerequisites: BIOL 407 and 411 or equivalents and organic chemistry; or consent of instructor.

BIOL 516. Protozoology (3) II. Major groups of Protozoa: their natural habitats, collection, staining, identification, structure and physiology. Two one-hour lectures, one three-hour laboratory. Prerequisite: four semesters of biology. BIOL 313 or 421 recommended.

BIOL 519. Advanced Plant Physiology (3) I Alternate years. Advanced studies of plant physiological processes including reproductive development, unique metabolic processes and stress effects on plants. Three one-hour lectures. Prerequisite: BIOL 407 or consent of instructor.

BIOL 522. Experimental Animal Physiology and Cellular Development (3) I Alternate years. Experimental design and modern methods for the quantitative evaluation of selected physiological and/or developmental processes. One hour of lab discussion, one four-hour laboratory. Prerequisite: BIOL 515 or consent of instructor.

BIOL 526. Transmission Electron Microscopy (4) I. Theory and practice of techniques in transmission electron microscopy applicable in biological research. Instruction and practice in fixation, thin sectioning, negative staining, computational analysis of data and vacuum evaporation. Two one-hour lectures and two 3-hour laboratories. Prerequisite: consent of instructor. BIOL 407 strongly recommended.

BIOL 536. Scanning Electron Microscopy (4) II. Theory and practice of techniques in scanning electron microscopy applicable to biological research. Critical point drying, sample coating techniques, transmitted electron detection, energy-dispersive x-ray microanalysis, and computational analysis of data. Two one-hour lectures and two 3-hour laboratories. Prerequisite: consent of instructor. BIOL 407 strongly recommended.

BIOL 540. Aquatic Ecology (3) II Alternate years. Integrated investigations of population and community ecology of freshwater organisms. One two-hour lecture and one three-hour laboratory. Prerequisites: BIOL 425 and consent of instructor.

BIOL 543. Helminthology (3) II Alternate years. Zoological classification, structural characteristics, life cycles, geographical distribution, methods of transmission, pathology, and physiology of helminths. Two one-hour lectures, and one three-hour laboratory. Prerequisites: BIOL 405 and consent of instructor.

BIOL 551. Developmental Genetics (3) I Alternate years. Manner which genes control or modulate process of development. Three one-hour lectures. Prerequisite: BIOL 350.

BIOL 552. Biochemical Genetics (3) II. Molecular structure, replication and genetics of plasmids and bacterial viruses. Gene expression and recombinant DNA technology. Three one-hour lectures. Prerequisite: BIOL 447 or BIOL 350 or consent of instructor.

BIOL 553. Population and Ecological Genetics (2) II Alternate years. Development and assessment of genetic theory of evolution; kinds and amounts of genetic variability in natural populations and evolutionary mechanisms which maintain and eliminate that variability. Two one-hour lectures. Prerequisite: BIOL 451 or consent of instructor.

BIOL 562. Virology (4) I Alternate years. Properties, functions and replication of viruses; interactions with cells and hosts; fundamental principles of methods commonly used for handling and studying animal viruses. Two one-hour lectures and two three-hour laboratories, plus arranged time. Prerequisite: consent of instructor.

BIOL 571-576. Problems in Biology (2-6) I, II. No more than 6 hours may apply to degree program. Prerequisite: consent of staff member involved.

BIOL 571. Problems in Morphology.
BIOL 572. Problems in Physiology.
BIOL 573. Problems in Taxonomy.
BIOL 574. Problems in Ecology or Limnology.
BIOL 575. Problems in Microbiology or Parasitology.
BIOL 576. Problems in Invertebrate Zoology or Entomology.

BIOL 577. Graduate Research in Marine Science (2-6). Opportunities for graduate research in botany, ecology, microbiology, morphology, microscopy, biological oceanography, parasitology and zoology. Contact the registrar of the Gulf Coast Research Laboratory for information.

BIOL 580. Biological Documentation Techniques (1-2) I. Biological literature retrieval, bibliographic techniques, data storage. All master's students must register for one hour. Non-thesis students (plan II) must register for an additional hour in same or subsequent semester, and carry out study which provides data for research paper, to complete requirement for graduate research seminar.

BIOL 595. Workshop on Current Topics in Biology (1-4) I, II, summer. Workshops designed for current topics and issues in discipline.

BIOL 599. Thesis Research (1-6) I, II, summer. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable towards degree. Minimum acceptable total for degree is three hours.

BIOL 601. Operation and Management of Blood Banks (3) I, II, summer. Modern scientific management and administration as applied to operation of large blood bank and transfusion service. Instrumentation and automation of techniques and data. Taught off campus for immunohematology program only. Prerequisite: consent of program director.

BIOL 602. Field Service (3) I, II, summer. Practical work and learning experiences in approved blood transfusion or processing laboratories. Each student's program individually structured. May be repeated. Arranged off campus for immunohematology program only. Prerequisite: consent of program director.

BIOL 603. Supervised Blood Banking Practice (4) I, II, summer. Practice and probationary period of continuous participation in active blood transfusion and processing operation under guidance and direction of qualified supervisors. May be repeated. Arranged off campus for immunohematology program only. Prerequisite: consent of program director.

BIOL 701-712. Topics in Biology (1-4) I, II, summer. Advanced seminars covering topics of current research interests of historical background in specialized fields of biology. Prerequisite: consent of instructor. May be repeated.

BIOL 701. Topics in Physiology
BIOL 702. Topics in Microbiology
BIOL 703. Topics in Parasitology
BIOL 704. Topics in Ecology
BIOL 705. Topics in Evolution
BIOL 706. Topics in Molecular Biology
BIOL 707. Topics in Entomology
BIOL 708. Topics in Morphogenesis
BIOL 709. Topics in Genetics
BIOL 710. Topics in Marine Biology
BIOL 711. Topics in Systematics
BIOL 712. Topics in Morphology

BIOL 721. Seminar (1). Graded S/U.

BIOL 799. Dissertation Research (1-10) I, II, summer. Student must register for minimum of 16 hours in this course while working on the doctoral dissertation. A maximum of 30 hours may be counted toward degree program.

Courses for graduates and undergraduates

BIOL 405. General Parasitology (4) I, II. Morphologic, taxonomic, economic and other biological aspects of parasites. Three one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

BIOL 406. Arthropod Vectors and Parasites (3) II. Biology and identification of disease-carrying, toxic, and parasitic arthropods. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205.

BIOL 407. Cell Biology (4) I. The structure and physiology of cells, integrating the dynamics of cellular structures with metabolic functions and control. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

BIOL 409. Invertebrate Zoology I (3) I. Classification, biology, and physiology of lower invertebrates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.

BIOL 410. Invertebrate Zoology II (3) I. Classification, biology, and physiology of invertebrates through lower chordates. Two one-hour lectures and one two-hour laboratory. Prerequisite: one course in biology or consent of instructor.

BIOL 411. Animal Physiology (4) II. Principles of general and comparative animal physiology with emphasis on vertebrate systems. Two one-hour lectures and one four-hour laboratory. Prerequisites: BIOL 204 and 205; organic chemistry and BIOL 407 recommended; or consent of instructor.

BIOL 412. Field Experience (6) Summer only. Biotic communities in central and western U.S.; observation, identification of plants, animals; quantitative field work. Individual problems arranged for advanced students to a maximum of nine hours. Prerequisites: ten hours of biology and consent of instructor.

BIOL 414. Plant Systematics (3) II. Elementary principles of plant identification, construction and use of keys and manuals, including winter plants, mosses, ferns, and spring flora. Two two-hour lecture-laboratories, and one one-hour discussion. Prerequisite: BIOL 204 or consent of instructor.

BIOL 415. Plant Anatomy (3) I. Development and mature structure of principal tissues of vascular plants; basic patterns and modifications of root, stem, leaf and flower. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.

BIOL 416. Morphology of Vascular Plants (3) II. Comparative structure and evolutionary trends in vascular plants. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor.

BIOL 417. Plant Physiology (4) II. Plant growth and development, transport, photosynthesis, mineral nutrition, plant hormones and photoperiodism. Three one-hour lectures, one two-hour laboratory and additional laboratory by arrangement. Prerequisites: ten hours of biology. One year of chemistry and BIOL 407 strongly recommended.

BIOL 419. Animal Histology (3) II. Microscopical anatomy of the vertebrates, origins of tissues and organs, relation of structure to function. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205 or consent of instructor.

BIOL 420. Animal Behavior (3) II. The genetics, physiology, development and evolution of behavior from an ecological perspective. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.

BIOL 421. Microbiology (3) I. Eukaryotic and prokaryotic microbial life; methods of laboratory study, enrichment techniques and nutrition. Two one-hour lectures and one three-hour laboratory. Prerequisite: BIOL 313 or consent of instructor.

BIOL 422. Terrestrial Ecology (3) I. Plants and animals in relation to the terrestrial environment. Two one-hour lecture-discussion and one three-hour laboratory. One weekend and one or more Saturday field trips required. Prerequisites: BIOL 204 and 205.

BIOL 424. Algology (4) I. Taxonomy, ecology and morphology of the algae; emphasis on fresh-water algae. One two-hour lecture and two two-hour laboratories. Prerequisites: BIOL 204 and 205.

BIOL 425. Limnology (3) I. Physical, chemical and biological aspects of aquatic habitats. One two-hour lecture and one three-hour lab. Prerequisites: BIOL 204 and 205.

BIOL 426. Pathogenic Microbiology (4) II. Morphology, physiologic, and serologic characteristics of pathogenic microorganisms; their epidemiology; and the host-parasite interrelations resulting in infectious disease. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 213 and 439. (BIOL 439 may be taken concurrently).

BIOL 431. Chordate Embryology (5) I. Early developmental patterns in Chordates; descriptive, comparative and theoretical considerations of embryology, early growth, development, form and pattern. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204 and 205 or consent of instructor.

BIOL 432. Comparative Anatomy of the Chordates (5) II. Comparative anatomy of representative chordates; evolutionary significance of structural and developmental changes and relationships of all organ systems. Three one-hour lectures and two three-hour laboratories. Prerequisites: BIOL 204, 205 and 431 or consent of instructor.

BIOL 434. Paleobotany (3). Alternate years. Morphology, evolution, geological distribution of fossil plants. Two one-hour lectures, one two-hour laboratory and several field trips. Prerequisites: BIOL 416 and historical geology or consent of instructor.

BIOL 435. Entomology (4) I. Biology of insects: structure, physiology, ecology, systematics, evolution, and importance to man. Two one-hour lectures and two two-hour laboratories or equivalent in field trips. Prerequisites: BIOL 204 and 205.

BIOL 438. Endocrinology (3) I. Physiological, metabolic actions of selected endocrine glands with emphasis on mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 411 and organic chemistry or consent of instructor; biochemistry recommended.

BIOL 439. Immunobiology (4) II. Immune state in animals; laboratory work on detection and quantitation of antigens and antibodies. Two one-hour lectures, one three-hour laboratory and one one-hour laboratory-recitation. Prerequisites: BIOL 204 and 205. BIOL 350 and biochemistry recommended.

BIOL 443. Microbial Physiology (4) II. Chemical composition, metabolic activities and nutrient requirements of microorganisms. Two one-hour lectures and two two-hour laboratories. Prerequisites: BIOL 313 and CHEM 308 or consent of instructor.

BIOL 449. Cytogenetics (3) II. Alternate years. Structure, organization and behavior of chromosomes; their function, modification, evolution, and role in speciation. Two one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 350 or consent of instructor.

BIOL 451. Evolution (2) II. Historical evidence for evolution. Modern evolutionary theory: modes of selection, speciation, complex adaptations, micro-evolutionary trends. One one-hour lecture and one two-hour discussion. Prerequisite: BIOL 350.

BIOL 472. Ichthyology (3) I. Alternate years. Life histories, systematics, physiology, ecology, evolution and biogeography of major groups of freshwater and marine fishes. Two one-hour lectures and one three-hour laboratory. Saturday and/or weekend field trips required. Prerequisites: BIOL 204 and 205.

BIOL 473. Mammalogy (3) I. Alternate years. Identification, natural history, evolution, zoogeography, ecology, physiology, behavior, with emphasis on Ohio mammals. Two one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 204 and 205.

BIOL 476. Herpetology (3) II. Alternate years. Amphibian and reptile identification, habits, distribution, behavior. Two one-hour lectures and one three-hour laboratory or equivalent field work, all day and/or weekend field trip. Prerequisites: BIOL 204 and 205.

BIOL 477. Ornithology (3) II. Structure, physiology, behavior, ecology and migration of birds; identification in field and laboratory. Two one-hour lectures and one three-hour laboratory or equivalent field work, all-day or weekend field trip. Prerequisite: seven hours of biology.

BIOL 478. Parasites of Marine Animals (6) Summer. Study of parasites of marine animals. Prerequisite: sixteen hours of biology including parasitology. Taught at Gulf Coast Research Laboratory.

BIOL 479. Marine Microbiology (5) Summer. Role of microorganisms in the ecology of oceans and estuaries. Prerequisites: general microbiology or bacteriology and consent of instructor. Taught at Gulf Coast Research Laboratory.

BIOL 481. Marine Botany (4) Summer. Survey based upon local examples, of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification, and ecology. Prerequisites: BIOL 204 and 205 or consent of instructor. Taught at Gulf Coast Research Laboratory.

BIOL 484. Marine invertebrate Zoology (6) Summer. Anatomy, life history, distribution, and phylogenetic relationships of free-living marine invertebrates with emphasis on fauna of the Carolinian Region. Laboratory and field work included. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

BIOL 485. Marine Vertebrate Zoology and Ichthyology (6) Summer. Marine Chordata, including lower groups and mammals and birds with emphasis on fishes. Prerequisites: sixteen semester hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

BIOL 488. Topics in Marine Science (3-6) Summer. Various marine courses such as marine ecology, salt marsh ecology, marine fisheries management, aquaculture, and others offered when taught by the Gulf Coast Research Laboratory staff. May be repeated for different titled topics as approved by the departmental marine science coordinator.

BIOL 490. Seminar (1) I, II, summer. Review of literature to acquaint student with research techniques and important work in various fields of biology. May be repeated, but only two hours may be applied toward a biology major. Prerequisite: ten hours of biology.

Business Education (BUSE)

BUSE 501. Foundations of Business Education (3) Alternate I, alternate summers. Principles of business education; historical development, evolving philosophy, and pertinent research.

BUSE 502. Curriculum Development in Business Education (3) Alternate II, alternate summers. Curriculum development in business education in public schools. Integration of basic business, data processing, secretarial administration, distributive education, and vocational office education into the curriculum.

BUSE 504. Secretarial Business Review (3) Alternate years. Latest technological advances and methodologies affecting secretarial careers.

BUSE 528. Data Processing with Implications for Business Education (3) On demand. Business data processing and its growing impact on secondary school programs in business/distributive education, computer concepts and writing of programs; use of video terminal and punched card input; development of instructional materials.

BUSE 553. Procedures in Teaching Business Subjects (3) I. Procedures and trends in teaching business and distributive education evolving from research.

BUSE 561. Seminar in Distributive Education (3) I. Problems and issues in distributive education through intensive investigation of research materials.

BUSE 562. Supervision in Vocational Education (3) II. Principles of supervision as they apply to business and vocational education.

BUSE 570. Independent Study in Business and Distributive Education (1-4) I, II, summer. Selected problems and readings. Proposed program of study must be approved by instructor prior to registration. Graded S/U.

BUSE 589. Internship, Field Placement, or Practicum in Business Education (1-4) On demand. Supervised experience within setting related to student's academic specialization. Proposed internship must be approved by instructor prior to registration.

BUSE 593. Office Administration Theory and Practice (3) On demand. Analysis of work and administrative function in business organizations. Development of strategies for improving management process. Information processing and principles of office efficiency.

BUSE 595. Workshop on Current Topics in Business Education (1-4) On demand. Study, readings, activities, and development of materials related to needs of practitioner.

BUSE 597. Research in Business Education (3) Alternate II, alternate summers. Components of research methodology; writing of research proposal in area of interest; critical analyses of design of selected studies in business/distributive education; use of library resources. Prerequisite: EDFI 596.

BUSE 598. Directed Research (1-4) On demand. Supervised independent research on delimited topic within discipline. Generation of new knowledge as contrasted with private reading course. Proposal for directed research must be approved by instructor prior to registration.

BUSE 599. Thesis Research (1-6) I, II, summer. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

BUSE 680. Seminar in Business Education (1-4) On demand. Systematic study of advanced topics within discipline. May be repeated upon approval of adviser. Prerequisite: consent of instructor.

Courses for graduates and undergraduates

BUSE 441. Consumer Economics in the Schools (3) Alternate II, alternate summers. Need for consumer economics. Organization and integration of consumer economics in school programs. Consumer and business background information.

BUSE 455. Administrative Management (3) I, II. Principles and practices of managing office personnel and operations. Selecting, developing, motivating, and appraising office employees. Office layout and design, work measurement, and work standards.

BUSE 461. Development of Instructional Materials in Distributive Education (2) I. Methods of developing teaching materials in distributive education.

BUSE 462. Coordination in Cooperative Vocational Education (2) II. Coordination in high school, post-high school, and adult education programs for vocational distributive education. Not open to students taking BUSE 468. C/F hrs.: 14.

463. Community Planning in Adult Vocational Education (3) I. Identification of adult needs, procedures for organizing and promoting adult programs in vocational education, selecting and training adult leaders, and financing adult programs.

BUSE 465. Development and Administration of Vocational Education (3) II. Vocational education as sponsored by federal, state, and local legislation.

BUSE 467. Workshop in Business and Distributive Education (1-3) Summer. Areas of current interest to teachers in business and distributive education. Possible areas include youth with special needs, cooperative education, vocational education for adults, intensive programs, post-secondary programs, and technical programs.

BUSE 468. Vocational Business and Office Education (4) I, II. Program construction, organization, improvement, implementation, evaluation, and development of program guides for both intensive and cooperative vocational business and office education. C/F hrs.: 28.

BUSE 468. CWA Curriculum and Instructional Procedures (3) II. Curriculum development for vocational work experience programs including instructional learning packets, course of study, teaching methodology, and techniques.

Career and Technology Education (C&TE)

C&TE 501. Principles of Career and Technology Education (3) I, summer, on demand. Principles and purposes of career development and education in adult, special, vocational and technical education in public and private agencies; impact of federal and state legislation on such programs.

C&TE 550. Instruction of Career and Technology Subjects (3) I, on demand. Planning, controlling, mediating, and evaluating learning activities; use of instructional systems and appropriate laboratory management techniques for programs in public schools, college, business and industry.

C&TE 552. Theory of Home Economics Education (3) I, on demand. Current practice and theory of Home Economics education related to technological, societal and educational influences and placed in historical perspective.

C&TE 553. Theory of Industrial Education (3) I, on demand. Current practice and theory of industrial education related to technological societal and educational influences and placed in historical perspective.

C&TE 554. Curriculum in Career and Technology Education (3) II, on demand. Critical review of existing and theoretical comprehensive career and technology education curricula.

C&TE 555. Curriculum Development in Home Economics Education (3) II, summer, on demand. Critical analysis of existing curriculum patterns and trends in general, vocational, secondary and higher education with a systems approach emphasis.

C&TE 556. Curriculum in Industrial Education (3) II, alternate summers. Critical review of existing curricula, diffusion techniques, adoption problems in industrial arts, vocational, industrial and technical education.

C&TE 557. Facilities Planning in Career and Technology Education (3) II, on demand.

Architectural, equipment and instructional problems are considered in developing and applying criteria to design, modify and manage facilities in career and technology education.

C&TE 558. Technology in America (3) I, summer, on demand. Nature of technology, development, effects upon society and likely impact on future.

C&TE 559. Training in Industry and Business (3) II, summer, on demand. Training function in industry and business and review of trainer competencies.

C&TE 570. Readings and Problems in Career and Technology Education (1-3) I, II, summer. Supervised study, selected problems and/or tailored readings. Proposed programs of study must be approved by instructor prior to registration. May be repeated to six credit hours.

C&TE 589. Internship (3) I, II, summer. Placement within setting related to student's academic specialization; teaching, curriculum-instructional systems development, administration-supervision or research-evaluation. Proposed field placement registration must be approved by instructor/supervisor prior to registration. May be repeated to six credit hours.

C&TE 595. Workshop in Career and Technology Education (1-4) I, II, summer. Workshops on current topics and issues within discipline. May be repeated.

C&TE 597. Research in Career and Technology Education (3) I, on demand. Identification of problem areas and specific problems in career and technology education. Within current theories, research design and techniques, individual student problems are defined and developed.

C&TE 598. Directed Research (1-3) I, II, summer. Supervised independent research on delimited topic. Generation of new knowledge as contrasted with private reading course. May run for longer than single semester. Proposal for directed research must be approved by instructor/supervisor prior to registration. Graded S/U.

C&TE 599. Thesis Research (1-6) I, II, summer. Credit for thesis study. A student may register for unlimited thesis credit with a maximum of six credits allowable toward degree requirements. The minimum acceptable total is three credit hours.

C&TE 611. Curriculum Development in Career and Technology Education (3) II, and alternate summers. Develops competencies in the process of curriculum development; includes preparation of curricular language, occupational analysis techniques, instructional procedures, implementation and evaluation, diffusion and adoption techniques.

C&TE 658. Evaluation in Career and Technology Education (3) II, summer, on demand. Principles and procedures in measuring and evaluating programs, courses, student and teacher behavior in career and technology education.

C&TE 666. Theories of Vocational Behavior (3) I, summer, on demand. Review of contemporary vocational development theories, related literature and research as applied in education, business and industry. Implications for structuring career education programs and personal career development are stressed.

C&TE 675. Administration and Supervision in Career and Technology Education (3) II,

summer, on demand. Leadership in career and technology education. Administrative and supervisory techniques are developed in personal relations, program development, processing proposals, interpretation of pertinent legislation and in-service programs.

C&TE 680. Seminar in Career and Technology Education (3) I, II, summer. Directed study, investigation and research in selected fields in career and technology education. May be repeated to 9 credit hours. Prerequisite: consent of adviser.

Home economics courses

HOEC 404. Tailoring (3) I, II. Specialized techniques of professional tailoring used in the construction of a suit or coat. Analysis of quality in ready-to-wear tailored garments. One hour of lecture and four hours of lab. Prerequisite: HOEC 202 or consent of instructor.

HOEC 405. Family and Consumer Economics (4) I, II. Families' financial planning; conditions as they affect consumer decisions in relation to patterns of living, income, and goals. Not open to students with credit for BUSE 240.

◆ **HOEC 406. Housing the Family** (3) II. Selecting, financing and adapting housing for families with varying lifestyles and needs. Energy efficiency, government role in housing, renting and owning options, and psychological needs emphasized.

HOEC 407. Research in Human Development and Family Studies (3) I, II. Learning methods of research by completing a research project on a topic of students' choice in the area of human development and family studies. Prerequisite: HOEC 105 or consent of instructor.

HOEC 408. Investigations in Family Life of Minority Groups (3) I. Directed investigation of the family life of racial and cultural minority groups in the United States. Prerequisite: junior or senior standing.

HOEC 413. Advanced Home Management (3) II. Alternate years. The recognition, integration, and application of management principles and concepts in a variety of family managerial situations. Utilization of appropriate technology. Prerequisite: HOEC 205 or consent of instructor.

HOEC 414. Experimental Clothing Construction (3) I. Experimental approach to study of factors influencing construction of apparel. One hour lecture and four hours of lab. Prerequisite: HOEC 202 or consent of instructor.

HOEC 416. Advanced Household Equipment (2) II. Alternate years. Current trends, development and research in household equipment with implications for consumers. Research project related to students' professional interests required.

HOEC 421. Parent Education (3) I, II (even years), I (odd years). Parents as models, educators, advocacy/volunteer and policy roles. Teaching and planning programs on child development, parent-child communication and special needs are included. Prerequisite: junior or senior standing.

HOEC 422. Cognitive Development of the Young Child (3) I (odd years), I, II (even years). Contemporary theories of intellectual development of young children with an examination of research pertaining to specific concept areas and the development of related experiences. Prerequisite: HOEC 320 or HOEC 321 or consent of instructor.

HOEC 423. Organization of Programs for Young Children (3) I (odd years), I, II (even years). Factors to consider in the organization and administration of programs for young children. Prerequisite: HOEC 322 or consent of instructor.

HOEC 431. Experimental Foods (3) I, II. Experimental methods of quality control and recipe standardization. Scientific reasoning applied to the methods of food preparation. Subjective and objective evaluation of results. Lab fee. Two hours of lecture and three hours of lab. Prerequisites: HOEC 212, CHEM 116 or consent of instructor.

HOEC 432. Advanced Nutrition (3) II. Topics in normal nutrition, including the nutrients and their interrelationships. Application of nutrition principles in counseling individuals. Analysis of current literature for validity and content. Introduction to nutritional assessment. Two hours of lecture and four hours of lab. Prerequisites: BIOL 332 and CHEM 116.

HOEC 434. Diet Therapy (4) I. Study of diseases and the dietary modifications they necessitate. Determination of rationale for inclusion or exclusion of specific foods in the diet prescribed. Study of clinical dietician's role. Three hours of lecture and four hours of clinical experience. Prerequisite: HOEC 432.

HOEC 435. Nutrition for Infants and Young Children (3) I. Nutrition of infants and children in health and disease, from the prenatal period to adolescence. Two hours of lecture and two hours of lab. Prerequisites: HOEC 207 or HOEC 307.

HOEC 436. Nutrition for the Aging (3) II. Nutritional needs of the aged. Menu planning, food purchasing and preparation. Psychological, physiological and socio-economic factors affecting dietary practices of the elderly in group and individual situations. Two hours of lecture and two hours of clinical experience. Prerequisites: HOEC 207 or HOEC 307, and BIOL 331 or BIOL 332, or consent of instructor.

HOEC 503. Young Children and Their Affective Development (3) On demand. Development of self-concept and general areas of affective growth in young children. Models and strategies for promoting social competence in young children will be studied. Prerequisites: work in developmental psychology or basic child development courses or consent of instructor.

HOEC 504. Understanding Family Process (3) On demand. Various theoretical approaches to family development and family interaction; emphasis on importance of theory in research design and in working with families in applied settings. Prerequisite: consent of instructor.

HOEC 507. Family and Community Nutrition (3) On demand. Fundamental nutrition needs of the family and community at all social levels; community related nutrition problems and their role in human nutrition. Two hours of lecture and two hours of clinical lab. Prerequisite: basic nutrition or consent of instructor.

HOEC 508. Perinatal Nutrition (3) On demand. Identification of competencies required of the perinatal health professional. In-depth review of current research and literature pertaining to the quality of life during the perinatal period. One two-hour clinical per week. Prerequisites: basic nutrition or consent of instructor.

HOEC 521. Behavior in infancy (3) On demand. Examination of research relative to conception through the first two years of life; traces ontogenesis of developmental processes, provides a practical application of research findings with emphasis on the neonatal period.

HOEC 589. Field Experience (2-6) On demand. Supervised field experience. May be repeated on approval. Prerequisites: minimum of 30 hours supervised experience in a professional setting and consent of supervisor. Graded S/U.

School of Technology courses

DESN 404. Computer Aided Design (3) II, even numbered years. Study and application of computer graphics systems to the design process. Use of interactive methods for design purposes with plotted or video output. Programming subroutines for graphics, two and three dimensional views, and surface generation. Four hours of lecture and laboratory. Prerequisites: DESN 104, CS 101.

DESN 436. Planning and Design of Industrial Facilities (3) I even numbered years, summer. Planning, estimating, design, and modeling of industrial facilities with consideration of management, personnel, production, aesthetics, and environment. Four hours of lecture and laboratory. Prerequisite: DESN 301.

DESN 450. Architectural Graphics II (3) II odd numbered years. Man made environment considered through advanced problems in architecture and the related graphics of presentation. Four hours lecture and laboratory. Prerequisite: DESN 301.

DESN 452. Design in Industry (3) I even numbered years. Systems approach applied to solution of one and two dimensional product design problems; emphasis on feasibility in production and use. Prerequisites: ART 212, DESN 104, DESN 204, DESN 404.

DESN 455. Engineering Design (3) I odd numbered years. Problems in engineering design in such areas as human factors, value engineering, CPM/PERT which require advanced engineering graphics for solution. Four hours lecture and laboratory. Prerequisite: DESN 304.

ENVT 421. Industrial Pollution Control (3) I. Air and water pollution control regulations as they apply to industry. Functioning and selection of parameters of industrial pollution control equipment and selected case studies.

ET 441. Instrumentation (3) I, summer on demand. Industrial instrumentation. Measuring of mechanical, fluid, and electric phenomenon, transducers, recorders, indicators and controllers. Principles underlying their design and applications. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.

ET 442. Digital Computer Analysis (3) II, summer on demand. Organization and construction of mini-micro computers, machine language programming, interfacing, including developing logic design, selection of integrated circuits, assembly, testing, and system diagnostic testing procedures. Four hours of lecture and laboratory. Prerequisite: ET 358 or consent of instructor.

ET 443. Solid State Devices (3) II even numbered years, summer on demand. Semiconductor devices, operational amplifiers, MOS memories, SCR, unijunction and FET transistors. Theory of operations, manufacturing procedures, parameter specifications, performance, testing and applications. Four hours of lecture and laboratory. Prerequisite: ET 348 or consent of instructor.

ET 453. Digital Computer for Process Control (3) II, summer on demand. Industrial process control utilizing mini and/or micro computers. Organization and operation of computers, various process control modules (A/D and D/A), signal conditioning and converting, and design of process control system. Four hours of lecture and laboratory. Prerequisite: ET 291 or consent of instructor.

IE 462. Career and Technology Education in Elementary Schools (3) II, summer, on demand. Development and evaluation of instructional activities to facilitate career development and understanding of technology among elementary children. One one- and one-half hour lecture and two one- and one-half hour laboratories.

IE 470. Coordinating Cooperative Education Programs II, odd numbered years. Prepared coordinator of cooperative work education programs in all phases of career and technology education. Readings, discussions, and field experiences designed to develop understanding of various types of cooperative programs, role of coordinator, and related instruction.

MFG 451. Casting Processes (3) Odd numbered years. Foundry operations in industry. Pattern making, core making, molding, melting, furnace operation, pouring of metals, and cleaning of castings. Four hours of lecture and laboratory. Prerequisite: MFG 114.

MFG 458. Machine Tool Processes II (3) II even numbered years, summer on demand. Advanced precision metal machine tool processes, production machines, and related tooling problems. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 311.

MFG 459. Ceramics Processing Technology (3) I Even numbered years. Materials and processing methods employed in the ceramic industries. Materials selection, batch and body making, basic mold design and construction. Four hours of lecture and laboratory. Prerequisite: MFG 113 or consent of instructor.

MFG 461. Sheet Metal Forming and Fabrication (3) II odd numbered years. Methods of pattern development, forming and fabrication methods used in sheet metal processing. One one-hour lecture and two two-hour laboratories. Prerequisite: MFG 114.

MFG 463. Welding Processes II (3) II, summers on demand. Welding of metals using oxyacetylene, electric arc, MIG and TIG processes including welding metallurgy; weld testing; design and construction of welded items; new technology development in welding. Skill emphasis on horizontal, vertical and overhead welding. Four hours of lecture and laboratory. Prerequisite: MFG 361.

TECH 454. Energy Conversion and Power Transmission (3) On demand. Existing and developing systems of energy conversion and power problems of fuel efficiency, pollution, potential, maintenance and application. Four hours of lecture and laboratory. Prerequisite: TECH 191.

TECH 457. Handicrafts for Recreation, Therapy, and Teaching Professionals (3) I, II, summers on demand. Creative possibilities using various materials and tools in development of personal lifetime recreational interests and skill in directing others in such activities. Four hours of lecture and laboratory. Prerequisite: TECH 313 or permission of instructor.

TECH 489. Cooperative Education (3) I, II, summer. Work and study in business, industry, service, or government agency in school-approved 15-week, paid, full-time position related to student's intended areas of concentration. May be repeated to six hours. Prerequisite: TECH 389. Graded S/U.

VCT 456. Color Process Photography (3) I, II, summer. In-depth study of process photography for reproduction of photographs and illustrations in black and white and color. Halftones, duotones (black and color), mechanical color separation, photographic four-color-separation, color posterization, and color proofing systems. Four hours of lecture/laboratory. Prerequisites: VCT 208 and VCT 308 and VCT 309.

VCT 460. Photography (3) I, II, summer. Research and experimentation in special effects photography and creative darkroom techniques. Four hours lecture/laboratory. Prerequisite: VCT 282.

VCT 533. Visual Communication for Business and Industry (3) II, alternate summers. An accelerated inquiry into the theories and processes of systematic communication problem solving, slide presentations, print production, film-making and non-broadcast television production.

Chemistry (CHEM)

CHEM 513. Advanced Physical Organic Chemistry (3) I. Molecular orbital theory, reactions controlled by orbital symmetry, photophysical and photochemical processes, stereochemistry and conformational analysis. Prerequisites: CHEM 342 and CHEM 406.

CHEM 514. Quantum Chemistry and Spectroscopy (3) II. Application of quantum mechanics to atomic and molecular structure and chemical bonding. Survey of atomic and molecular spectroscopy; theoretical treatment and applications. Prerequisite: CHEM 406.

CHEM 515. Structural and Mechanistic Aspects of Inorganic Chemistry (3) II. Various bonding theories as applied to chemical systems with an introduction to group theory, stereochemistry and mechanism of reactions involving organometallic and coordination compounds. Prerequisites: CHEM 406 and CHEM 463. Corequisite: CHEM 514 recommended.

CHEM 518. Synthetic Chemistry (2) II. Methodologies and strategies for synthesis of organic, organometallic, and biological molecules. Emphasis on research described in current chemical literature. Prerequisite: CHEM 342.

CHEM 521. Thermodynamics and Kinetics (4) I. Introduction to classical and statistical thermodynamics. Analysis of rate processes and survey of theories of reaction rates. Introduction to reaction mechanisms. Prerequisite: CHEM 406.

CHEM 525. Chemical Analysis (3) I. A detailed coverage of complex equilibria in aqueous and non-aqueous solutions. The principles of chemical separations; chromatographic principles; theory and practice of sampling for chemical test purposes. Prerequisite: CHEM 406.

CHEM 541. Biochemistry of Inherited Metabolic Diseases (1) Alternate years. Alternate pathways of metabolism resulting from mutations and hereditary diseases. Prerequisite: CHEM 447 or consent of instructor.

CHEM 542. Biochemistry of Hormones (1) I. Alternate years. Structure, function, metabolism, and interrelationships of peptide, steroid, fatty acid, and aromatic hormones. Prerequisite: CHEM 447 or consent of instructor.

CHEM 543. Biochemistry of Nucleic Acids (2) II. Alternate years. Current concepts and mechanisms of replication, transcription, and translation. Prerequisite: CHEM 447 or consent of instructor.

CHEM 544. Enzyme Kinetics and Mechanisms (2) II alternate years. Kinetics of enzyme action and mechanisms are discussed. Prerequisite: CHEM 447 or consent of instructor. CHEM 406 recommended.

CHEM 580. Seminar in Chemistry (1) I, II, summer. Selected topics in chemistry. Every graduate student in chemistry required to register for this course each semester in residence. No more than two hours of credit in this course may be counted toward degree. Graded S/U.

CHEM 583. Advanced Topics in Chemistry (1-3) I, II, summer. Rigorous study at advanced level of specific topics in chemistry of current interest. May be repeated for total of no more than 4 credit hours with clearly different topics.

CHEM 595. Workshop on Current Topics in Chemistry (1-4) I, II, summer on demand. Workshop on current topics and issues within discipline; topics vary from semester to semester.

CHEM 596. Advanced Laboratory (2) I, II, summer. Individual projects of advanced nature to supplement previous laboratory experience and to prepare for independent research. Prerequisites: CHEM 342 and CHEM 408.

CHEM 599. Thesis Research (1-6) I, II, summer. Thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is four hours.

Courses for graduates and undergraduates

CHEM 405. Physical Chemistry (4) I, summer. Thermodynamics and quantum chemistry. Prerequisites: CHEM 201 (or CHEM 136) and MATH 232, and either PHYS 212 or PHYS 202.

CHEM 406. Physical Chemistry (4) II, summer. CHEM 405 continued. Electrochemistry, kinetics, spectroscopy and molecular structure. Prerequisite: CHEM 405.

CHEM 407. Integrated Analytical and Physical Laboratory (2) I. Principles of measurement; spectral, chromatographic and electroanalytical techniques; thermodynamic and kinetic measurements; computerized data acquisition. Two three-hour laboratories. Prerequisite or corequisite: CHEM 405.

CHEM 408. Integrated Analytical and Physical Laboratory (2) II. Continuation of CHEM 407. Prerequisite: CHEM 407; prerequisite or corequisite: CHEM 406.

CHEM 413. Special Problems (1-3) I, II, summer. Independent study and research. Three to nine hours of laboratory, one half-hour conference each week. Not applicable toward the minimum requirements of major or minor. Prerequisites: consent of instructor, 20 hours of CHEM or consent of department, 2.5 minimum overall GPA. May be repeated, but no more than six hours credit may be applied toward degree.

CHEM 442. Organic Reaction Mechanisms (3) II. Fundamentals of organic reaction mechanisms and methods for their elucidation. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.

CHEM 445. General Biochemistry (3) I. Structure, function, chemical and physical properties of biorganic molecules. Prerequisites: CHEM 342 and either CHEM 352 or CHEM 406, or permission of instructor.

CHEM 446. Biochemistry Laboratory (1) I. Experimental techniques in biochemistry. Three-hour laboratory. Prerequisite or corequisite: CHEM 445.

CHEM 447. General Biochemistry (3) II. Metabolism, energetics, and regulation of biorganic molecules. Prerequisite: CHEM 445.

CHEM 449. Advanced Biochemistry Laboratory (2) II. Research techniques in biochemistry. Two three-hour laboratories. Prerequisite: CHEM 446 or permission of instructor.

CHEM 453. Environmental Chemistry (2) I. Alternate years. Sources, reactions, transport, and fates of chemical species in water, soil and air environments. Prerequisites: CHEM 136 (or CHEM 201), CHEM 306 (or CHEM 342), and CHEM 352 (or PHYS 215).

CHEM 454. Instrumental Methods of Analysis (3) II. Theory of instrumental methods of analysis including electroanalytical, spectroscopic and chromatographic methods. Prerequisite: CHEM 408 or consent of instructor.

CHEM 463. Advanced Inorganic Chemistry (4) I. Chemical bonding, stereochemistry, acid-base chemistry, periodicity, nonmetal and transition metal chemistry, organometallic and bioinorganic chemistry. Prerequisites: CHEM 342, CHEM 406.

CHEM 466. Spectroscopic Methods in Organic Chemistry (2) I. Organic structure determination by spectroscopic techniques, with emphasis on infrared, ultraviolet, and nuclear magnetic resonance spectroscopy, and mass spectrometry. Also includes a brief introduction to related spectroscopic methods. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 405.

College Student Personnel (CSP)

CSP 501. Student Personnel Program in Higher Education (3) I, summer. Philosophy and objectives of student personnel program in colleges and universities; overview of campus student personnel services.

CSP 502. Characteristics and Behavioral Patterns of Young Adults (3) I, summer. Characteristics, attitudes, and values of young adult in modern society. Implications of research on young adult for student personnel program.

CSP 503. Issues in College Student Personnel (3) II. Examination of current and emerging issues in student development and student personnel programs.

CSP 504. Student Development Programs in Two-Year College (3) Summer. Student, staff, and institutional characteristics in two-year college. Analysis of institutional characteristics and community relationship patterns and effect upon student development. Field trips and interviews arranged.

CSP 505. Basic Documents in College Student Personnel (2) II, summer. An intense study of selected professional statements/articles that form the historical and philosophical bases on contemporary college student personnel.

CSP 506. Theory and Assessment of Educational Environments (3) I, II. Application of environmental theory to the assessment of human environments. Special emphasis on the study of select environments of the college campus, and their influence on students.

CSP 570. Readings in Application of College Student Personnel Concepts and Procedures (1-4) I, II, summer. Independent study, supervised study or selected problems, and tailored readings. Proposed program of study must be approved by instructor prior to registration. May be repeated upon approval of student's adviser if graduate program department credit is desired or at discretion of student for personal growth.

CSP 576. Supervised Counseling Practicum for College Student Personnel Program Majors (3) II, summer. Individual and group counseling under supervision. Intake observation and multiple counseling experience arranged. Prerequisites: EDFI 575 and consent of department chair.

CSP 580. Graduate Seminar in College Student Personnel (1-3) I, II, summer. A generic seminar on specialized topics/concerns in college student personnel. Examination and analysis of selected topics of concern to college student personnel practitioners. May be repeated upon approval of student's adviser if graduate program department credit desired or at discretion of student for personal growth. Maximum of six hours may apply to degree requirements.

CSP 585. Supervised Field Experience in College Student Personnel Program (1-3) I, II, summer. Student must be engaged in supervised experience in appropriate areas of college student personnel. Participation in regularly scheduled seminar dealing with analysis of issues in higher education required. May be repeated to 12 hours. Graded S/U.

CSP 589. Practicum in College Student Personnel (1-4) I, II, summer. Supervised experience within setting related to student personnel/student supervisor prior to registration. May be repeated upon approval of student's adviser if graduate program department credit desired or at discretion of student for personal growth. Graded S/U.

CSP 590. Teaching of College Student Personnel at Post-Secondary Level (1-3) I, II, summer. Focus on pedagogic aspects of CSP discipline with post-secondary education. Techniques, strategies, for use of CSP concepts and procedures in two-year, four year, and/or graduate institution.

CSP 595. Workshop on Current Topics in College Student Personnel (1-2) I, II, summer. Study, readings to provide professional development activities. Topics vary from quarter to quarter. May be repeated on approval of student's adviser if graduate program department credit desired or at discretion of student for personal growth.

CSP 598. Directed Research (1-4) I, II, summer. Supervised independent research on delimited topic within discipline. Involves generation of new knowledge as contrasted with private reading course. Proposal for directed research must be approved by instructor prior to registration.

CSP 599. Thesis Research (1-6) I, II, summer. Credit for thesis study. Minimum acceptable total for degree is four hours.

Computer Science (CS)

CS 500. Computing for Graduate Students (3) I, summer. Accelerated presentation of one computer language in detail and overview of second language. Problem solving and practical applications in student's area of interest. For graduate students outside computer science who wish to use computing in their disciplines. Graded P/NP.

CS 501. Introduction to Graduate Study in Computer Science (2) Summer. Complete coverage of PASCAL, including pointers and recursion. Data and storage structures. For computer science graduate students whose background does not include these topics. Prerequisite: programming experience.

CS 502. Computer Systems Organization (2) Summer. Systems programming and hardware organization topics; development of a large systems project. For computer science graduate whose background does not include these topics. Prerequisite: CS 501 or equivalent. Prerequisite or corequisite: CS 201.

CS 503. Statistical Packages (3) II, summer. Use and comparison of various statistical packages, with emphasis on SPSS and SAS. Credit not applicable toward a degree in computer science. Prerequisite: graduate-level course in statistics.

CS 507. Architecture of Computers (3). Topics from contemporary computer system design techniques: microprogramming, reliability and maintainability, computer-aided design. Impact of advances in technology on computer organization. Computer system design project usually required. Prerequisite: CS 307.

CS 508. Advanced Operating Systems (3) II. Survey of major operating systems. Sequential and concurrent processes; storage management; scheduling algorithms; resource protection; management, and security. Prerequisite: CS 408.

CS 509. Advanced Compiler Design (3) II. Programming language grammars and normal forms, parsing algorithms and semantics specification, optimization, error recovery. Translator writing systems and extensible languages. Prerequisite: CS 409.

CS 511. Automata and Computability Theory (3) Summer, odd-numbered years. Algebraic representation of various mathematical models for algorithmic processes, such as finite automata and Turing machines. Limitations of such models.

CS 512. Analysis of Algorithms (3) Summer, even-numbered years. Algorithms for solving problems that occur frequently in computer applications. Basic principles and techniques for analyzing algorithms.

CS 529. Communication Networks (3) I. Overview of existing and planned data networks (Arpanet, Data pac, Furonet, etc.), switching techniques. Delay analysis, network design algorithms, buffer allocation, polling, network communication protocols. Prerequisite: CS 428.

CS 540. Mathematical Programming Systems (3) II. Theory and computational techniques of linear and nonlinear programming. Integer programming, dynamic programming, parametric programming, unconstrained optimization. Topics of current interest. Prerequisites: CS 440 and MATH 332.

CS 562. Techniques of Database Organization (3) I. Physical aspects of database processing; database design objectives, survey of the alternate physical structures and their trade-offs. Prerequisite: CS 462.

CS 564. Computer Center Management (3) I. Equipment selection techniques; mathematical modeling and statistical analysis. Hardware performance measurements. Budgeting and rate-setting. Software acquisition; management of software projects. Computer center personnel standards. Prerequisite: CS 502 or equivalent.

CS 570. Readings in Computer Science (1-4). Supervised study and/or projects in any area of computer science, including computer systems design, automata theory, operations research. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CS 590. Graduate Seminar (1-4). Special course offering on topic of current interest. Content varies with each offering. Prerequisite: consent of instructor. May be repeated.

CS 598. Directed Research (1-4). Prerequisite: consent of instructor. May be repeated to total of six hours. Graded S/U.

CS 599. Thesis Research (1-4). Prerequisite: consent of instructor. May be repeated.

Courses for graduates and undergraduates

CS 407. Advanced Computer Organization (3). Evolution of computer systems. Detailed studies of several selected computer organizations; comparison of functional components and overall designs. Prerequisite: CS 307.

CS 408. Operating Systems (3) I. Structure of operating systems. Physical input-output, buffering, interrupt processing. Memory, processor, device, information management; resource management interdependencies. Prerequisites: CS 202 and CS 306.

CS 409. Language Design and Implementation (3) I. Fundamental concepts of languages. Processors, data, operations, sequence control, data control, storage management, syntax, translation. Prerequisites: CS 202 and CS 306.

CS 410. Formal Language Theory (3) I. Various types of languages (context-sensitive, context-free, finite-state). Discussion of recognition devices such as pushdown automata, linear bounded automata, and Turing Machines. Some topics of current interest.

CS 420. Artificial Intelligence and Heuristic Programming (3) II. Definition of heuristic vs. algorithmic methods. Topics from areas of game playing, theorem proving, pattern recognition, question answering programs, natural language processing. Programming project or report usually required. Prerequisite: CS 305.

CS 425. Computer Graphics (3) I. Graphic I/O devices; 2-dimensional and 3-dimensional display techniques; display processors; clipping and windowing; hidden line removal; data structures for graphics. Prerequisites: CS 205 and MATH 222.

CS 428. Microcomputer Systems (3) II. Architecture of microcomputers; programming techniques for small computers; operating systems; I/O techniques. Detailed study of a specific microcomputer system. Prerequisite: CS 202.

CS 440. Optimization Techniques (3) I. Linear programming, game theory, PERT, network analysis; duality theory and sensitivity analysis; applications. Computer program written to implement several techniques. Prerequisites: CS 104 and MATH 131.

CS 442. Techniques of Simulation (3) II. Principles of simulation and application of several simulation languages to both continuous and discrete systems. Prerequisites: CS 104 and MATH 131.

CS 451. Numerical Analysis (3) I. Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation; zeros of polynomial and transcendental functions; numerical differentiation and integration; solution of linear systems by direct and iterative methods. Selected algorithms programmed for solution on computer. Prerequisites: CS 101 or CS 103, and MATH 332. Not open to students with credit for MATH 451.

CS 452. Numerical Analysis (3) II. Matrix inversion, computation of eigenvalues and eigenvectors of matrices; least squares, trigonometric, and Chebyshev approximation; numerical solution of initial value and boundary value problems in ordinary differential equations, numerical solution of partial differential equations. Prerequisites: CS 101 and CS 103, and MATH 337. Not open to students with credit for MATH 452.

CS 462. Database Management Systems (3) I, II, summer. Logical aspects of database processing. Concepts of organizing data into integrated database. Hierarchical, network, and relational approaches studied. Prerequisite: CS 360.

CS 464. Software Development (3) II. An in-depth study of all aspects of the software development process: user requirements, specifications, design, coding, testing, maintenance, documentation, management. Team development of a large software project. Prerequisites: CS 201 and CS 205.

Economics (ECON)

ECON 501. Price Theory (3). Theory of the firm and applications to business administration. Prerequisite: consent of instructor.

ECON 502. Income Analysis (3). Measurement and determinants of gross national product. Analysis of public economic policies to control price levels, employment, and economic growth. Prerequisite: consent of instructor.

ECON 503. Development of Economic Concepts (3). Evolution of economic ideas in historical context.

ECON 505. Competition and Monopoly in American Industry (3). Industry structure, conduct, and performance. Evolution of government policies and economic significance.

ECON 506. Quantitative Economics (3). Application of statistical and mathematical concepts to behavior of firms, markets, and aggregate economy. Prerequisite: ECON 400 or consent of instructor.

ECON 509. Economic Policy (3). Application of tools covered in microeconomic and macroeconomic theory. Market and non-market economic forces which bear upon business decision making. Current economic environment provides basis for topical content. Prerequisites: ECON 501 and ECON 502 or equivalents.

ECON 510. Advanced Microeconomic Theory (3) I. Economic analysis of product and factor markets, general equilibrium analysis, and introduction to welfare economics. Prerequisite: ECON 302 or ECON 501 or consent of adviser.

ECON 511. Aggregative Economics (3) I. Macroeconomic analysis; measurement of gross national product; determinants of aggregate employment and national income, price levels and economic growth. Prerequisite: ECON 303 or ECON 502 or consent of adviser.

ECON 512. Monetary Theory and Policy (3) II. Modern monetary theory and policy. Synthesis of monetary and macroeconomic theory. Prerequisite: ECON 303 or ECON 311 or ECON 502.

ECON 523. Seminar in Labor Relations (3) On demand. Uniqueness of contemporary labor relations problems. Development of collective bargaining units in public and private sectors, labor negotiations, and labor disputes involving professional personnel.

ECON 524. Seminar in Economic Problems of Labor (3). Theoretical and empirical analysis of current problems in labor market including relative wage structure, labor mobility, technology, employment, business cycle, and government policies.

ECON 531. Economics of Public Sector (3). Examines theoretical foundations of taxes, expenditures, and public debt in market economy.

ECON 551. Seminar in International Economics (3). International resource allocation, commercial policy, balance of payments, and foreign exchange markets. International economic institutions. Prerequisite: ECON 351 or consent of instructor.

ECON 552. Economic Problems of Less-Developed Countries (3) On demand. Transformation of less-developed countries into modern economic societies, definitional problems, theories of economic development, historical evidence, international framework and policy aspects of development.

ECON 561. Seminar in Regional and Urban Economic Analysis (3) On demand. Analysis of regional and urban studies and research. Prerequisite: ECON 460 or ECON 462 or consent of instructor.

ECON 570. Readings in Economics (1-4). Offered to individual student or to group of students as needed. Selected areas and problems treated in depth. May be repeated to four hours. Graded S/U.

ECON 580. Seminar in Economics (3) On demand. Seminar on economic topics deemed appropriate to participants. Prerequisite: consent of adviser. May be repeated.

ECON 589. Internship (1-6). Supervised professional experience within occupational setting related to student's area of academic specialization. Graded S/U.

ECON 597. Economics Research Seminar (3) Summer. Topics include the process of defining a problem, selection of a model, sources of data, testing procedures and reporting results. The student is required to participate in a research project. Prerequisite: ECON 402.

ECON 599. Thesis Research (1-6). Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

ECON 400. Mathematics for Economics (3) I. Elementary mathematical methods and basic applications to economic theory. Not open to students who have had MATH 231 or above.

ECON 401. Mathematical Economics (3) II. Economic theory in mathematical context; microeconomic and macroeconomic models, their structure and analysis. Constrained optimization. Prerequisite: ECON 400 or equivalent.

ECON 402. Econometrics (3) II. Statistical techniques used to measure economic data and to test validity of theoretical models. Prerequisites: STAT 212 and ECON 400 or consent of instructor.

ECON 414. Monetary and Fiscal Policy (3). Objectives, means, and history of monetary and fiscal control; effect on total economic activity.

ECON 424. Income, Wages, and Welfare: Analysis and Policy (3) On demand. Theories of income and wage determination. Effect of employers and labor organizations and economic effects of various income policies.

ECON 451. International Economics (3) I. Theory of international economics; international trade as factor in national income; significance of international investment; public policies to promote trade; international economic cooperation.

ECON 452. International Monetary Economics (3) II. Alternative international monetary systems; emphasis on present system.

ECON 460. Regional Economics (3) I. Location and land use theories, central place theory, tools of regional analysis, regional growth theory, and regional public policy issues. Prerequisites: ECON 202 and ECON 203.

ECON 462. Urban Economics (3) II. Urban spatial theory and analysis, the economic analysis of urban problems including poverty, housing, transportation, the environment, and public finance. Prerequisites: ECON 202 and ECON 203.

ECON 471. Industrial Organization: Study of Business Size and Competition (3) II. Forces that lead to bigness and resulting impact of bigness on competition; public policy, including regulation, designed to cope with business size. Prerequisite: ECON 202 or consent of instructor.

ECON 472. Comparative Economic Systems (3) II. Analysis of contemporary economic systems including capitalism, centrally planned socialist economies, market socialism, and mixed economies.

Educational Administration and Supervision (EDAS)

EDAS 501. Principles of Public School Administration (3) I, II, summer. Public school organizations, educational leadership, administration of special services, pupil personnel, school plant planning, plant operations, and school community relations in elementary and secondary schools.

EDAS 502. School Principalship (3) I, II, summer. Principles and practices in administration as related to elementary and secondary principal's function as professional leader, supervisor, public relations agent, and office manager. Prerequisite: EDAS 501 or consent of instructor; one year of teaching experience preferred.

EDAS 505. Educational Supervision (3) I, II, summer. Basic principles of supervision applied to instructional problems in elementary and secondary schools. Analysis of supervisory functions of superintendent, principal, and supervisor. Prerequisite: EDAS 501 or consent of instructor; one year of teaching experience preferred.

EDAS 508. Emerging Topics in Educational Administration (3) On demand. Problems confronting teachers and educational administrators: Problem areas that may be identified are computerized scheduling, student unrest, administrative and instructional leadership, community education, and legal and financial arrangements. May be repeated to total of 9 semester hours.

EDAS 509. School Public Relations (3) I, II, summer. Methods of working effectively with people in school community. Prerequisite: EDAS 501 or consent of instructor.

EDAS 510. Planned Field Experience and Seminar in Educational Administration and Supervision (3) I, II, summer. Opportunity for individuals to become familiar with responsibilities and tasks associated with position of supervisor or principal as required for certification in Ohio. Prerequisite: 16 hours toward master's degree including EDAS 501, 505, and 502 or 589. Permission of instructor should be obtained one semester in advance of registration. Graded S/U.

EDAS 512. School Boards in American Education (3) I. School board operations, issues, relationship, problems, legal bases, and roles in leadership and management of schools and education. Prerequisite: EDAS 501 or consent of instructor.

EDAS 513. Administration of School Discipline Strategies and Techniques On demand. Methods for analyzing problem behavior; comprehensive, positive process approach to dealing with behavior problems and school discipline. Prerequisite: EDAS 501 or consent of instructor.

EDAS 514. Planning in Education (3) II. Program planning, futuristics, systems analysis, information systems and alternative designs analyzed. Students assisted individually in development of plan applicable to professional roles. Prerequisite: EDAS 501.

EDAS 570. Readings in Educational Administration and Supervision (1-4) I, II, on demand. Independent study, supervised study, selected problems and tailored readings. Registration must be approved by EDAS 570 coordinator. Proposed program of study must be developed by student and approved by instructor. May be repeated with approval of student's adviser. Course may be considered for professional growth or certification.

EDAS 580. Graduate Seminar (1-3) I, II, summer on demand. Selected topics within the discipline. Content varies from one year (or semester) to next. May be considered for professional growth or certification.

EDAS 588. Practicum in Educational Administration and Supervision (3) I, II, summer on demand. Supervised experience in setting related to one's academic specialization. Proposed field placement must be approved by instructor/supervisor prior to registration. May be repeated on approval of student's adviser. May be considered for professional growth or certification. Written research proposal and adviser's approval required. Graded S/U.

EDAS 590. Teaching of Administration and Supervision at Post-Secondary Level (1-3) I and on demand. Selected aspects of educational administration and supervision in higher education. Techniques and strategies for utilization of educational administration and supervisory concepts and procedures in two-year, four-year, and/or graduate institutions.

EDAS 595. Workshop on Current Topics in Educational Administration and Supervision (1-3) I, II, summer on demand. Study, readings, activities and development of materials related to needs of EDAS practitioner. Topics vary from semester to semester. May be considered for professional growth or certification.

EDAS 598. Directed Research in Educational Administration and Supervision (1-3) I, II, summer on demand. Supervised independent research on delimited topic. Generation of new knowledge. Not readings course. May run for longer than single semester. Proposal must be approved by instructor/supervisor prior to registration. Graded S/U.

EDAS 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree.

EDAS 601. School Law (3) I, summer. Statutes and judicial decisions of federal and state government affecting schools, emphasis on Ohio. Legal authority, powers, and liabilities of school personnel; legal control; limitations of school finance, curriculum, and property. Prerequisite: EDAS 501.

EDAS 603. School Finance (3) II, summer. Financing public education in U.S.; emphasis on sources of support, methods of distribution, and problems and issues involved. Prerequisite: EDAS 501.

EDAS 604. School Plant Planning (3) I, summer. Federal-state-local relationships, planning for school buildings, criteria for selection and development of school sites, educational program and architectural character of school buildings, evaluation of school plants, and study of modernization vs. replacement.

EDAS 605. Internship or Field Service (2-6) I, II, summer. Each student's program individually structured. Practical work or learning experience in approved educational institution under direct supervision of appropriate official or instructor. Prerequisite: consent of instructor. May be repeated with consent of department chair. Graded S/U.

EDAS 606. Seminar in School Personnel Administration (3) I, II, summer. Emphasis on organization for handling personnel problems, group processes, and development of personnel policies relating to salary and working assignment; in-service improvement; and professional relations. Prerequisite: EDAS 501.

EDAS 607. Seminar in Business School Administration (3) I, summer. Principles and practices in budget making and execution; management of internal accounts; development of effective record system; purchase, distribution, and management of supplies; operation and maintenance of school plant; auxiliary services. Prerequisite: EDAS 501.

EDAS 608. School Superintendent (3) II, summer. Role and function of school superintendent, analysis of position of superintendent and relationship with school boards, staff organizations, personnel administration; contemporary issues in elementary and secondary education in relation to public policy.

EDAS 609. Management Strategies in Educational Administration (3) I, on demand. Strategies that may be identified are P.F.B.E.S.; power structure analysis; community relations programming; politics and decision making; strategic personnel planning; courts and school policy making; adaptations of technology to administration; and accountability planning. May be repeated for total of 9 semester hours.

EDAS 610. Issues in Higher Education (3). Analysis of the broad range of current problems, concerns, and professional issues confronting administrators, faculty, students, and others concerned about higher education.

EDAS 611. College and University Administrative Structure and Organization (3). Overview of the mission, organizational structure, and government of higher education.

EDAS 612. Administration and Supervision of Non-Academic and Support Services in Higher Education (3). Exploration of issues and problems in the administration of non-academic and support service functions in higher education including emphasis on organizational structure, finance, and relationships with external and internal constituents.

EDAS 670. Readings in Advanced Educational Administration and Supervision (1-4) I, II, summer on demand. Independent study, supervised study, selected problems and tailored readings. Proposed program must be approved by instructor. May be repeated on approval of student's adviser for a total of 8 semester hours.

EDAS 680. Graduate Seminar in Educational Administration and Supervision Topics (1-3) I, II, III, on demand. Content varies from one year (or semester) to next. May be repeated on approval of student's adviser. Course may be considered for professional growth or certification.

EDAS 701. Administration Theories and Educational Administration (3) I, summer. Theories of administration from government, business, industry, and education; provides broad background for theoretical construction. Prerequisites: administrative experience preferred; EDAS 501; consent of instructor.

EDAS 702. Seminar in Educational Administration (3) II, summer. Functions and processes, applying administrative theories and concepts, and relating knowledge from diverse and inter-disciplinary specializations. Prerequisite: EDAS 701 or consent of instructor.

EDAS 703. Seminar: Teaching In Higher Education (1-3) I, summer. Examination of the instructional, research, and service functions of faculty within institutions of higher education. Prerequisite: advanced graduate standing and consent of instructor.

EDAS 799. Dissertation Research (1-16) I, II, summer. Student must register for minimum of 16 hours in this course while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Educational Curriculum and Instruction (EDCI)

EDCI G420. Developmental Reading in the Content Area (3) I, II, summer. Orients the teacher to the developmental reading process as it applies to the various subject matter areas, including diagnosis and prescription, vocabulary, word analysis, comprehension, and study skills. Prerequisite: EDFI 302, content methods course or consent of instructor.

EDCI G471. Directing Speech Activities in High School (3) Summer. Administration of secondary cocurricular speech programs in forensic events, mass media, and theatre. Prerequisites: B.S. in speech education or EDCI 372, IPCO 204, THEA 241, 243 and 341.

EDCI 510. Advanced Language Arts Instruction (3) II. Theory related to language arts instruction in elementary school. Explores instructional strategies for involving children in developing their language. Application of strategies to elementary classroom teaching.

EDCI 511. The Curriculum (4) I, II, summer. Sources of curriculum; foundational bases for contemporary curriculum; forces that shape design and development of curriculum; and factors related to implementing, modifying and evaluating curriculum.

EDCI 516. Curriculum and Instruction in Early Childhood Education (3) On demand. Study of early childhood curricula and instructional activities. Analysis and evaluation of strategies.

EDCI 520. Reading and Study Skills for Secondary Schools and Junior Colleges (3) I, summer. For students interested in secondary and junior college reading programs. Extension of content reading concepts, critical reading and specialized reading/study skills; e.g., use of textbooks, library formation and speed reading.

EDCI 521. Foundations of Reading Instruction (3) I, II, summer. Identification of major areas of concern in reading. Alternative solutions; psychological, sociological, and historical points-of-view.

EDCI 523. Correlates and Determinants of Reading Success (4) I, summer. Correlates of classroom reading success, methods of determining classroom reading success and writing appropriate descriptive suggestions for successful reading. Prerequisites: EDCI 420 and/or 521 or consent of instructor.

EDCI 525. Strategies for Facilitating Reading Success (4) II, summer. Techniques of teaching atypical readers in the classroom and special reading classes; tutorial experiences, appropriate methods, materials, and motivational strategies for atypical readers; evaluating reading success and writing appropriate progress reports. Prerequisites: EDCI 420, 521 and 523.

EDCI 529. Leadership in Reading and Communication Skills (3) II. Cognitive and performance based procedures for creating and guiding reading-language arts (communication) programs. Review of component skills development followed by suggested program for change and action.

EDCI 545. Problems in Teaching High School Science (3) On demand. For science teachers and science supervisors. Improved techniques, current literature, new approaches to teaching high school science, and point of confronting science teachers in classroom and laboratory.

EDCI 546. Seminar In Teaching Secondary School Mathematics (3) On demand. Current research, recommendations, and materials pertaining to teaching secondary school mathematics.

EDCI 547. Inquiry in Secondary School Social Studies (3) On demand. Analysis of current experimental programs that include inquiry as basic component. Student plans units with consistency among instructional materials, teaching strategies, objectives, and evaluation of learning. Research paper required.

EDCI 570. Readings in Curriculum and Instruction (1-4) On demand. Independent study, supervised study or selected problems, and tailored readings. Proposed program of study must be approved by instructor prior to registration. Must have approval of student's adviser if graduate program credit desired or at discretion of student for recertification or for personal growth.

EDCI 580. Graduate Seminar In Curriculum and Instruction (1-3) I, II, summer on demand. Selected topics within the discipline. Content varies from one year (or semester) to next. Must have approval of student's adviser if graduate program credit is desired or at discretion of student for recertification or for personal growth.

EDCI 581. Theory and Practice in Elementary School (3) II, summer. Current theories and programs in elementary education and relationship to and effect on public elementary schools. Recommended after EDCI 511.

EDCI 583. Theory and Practice in Secondary School (3) I, summer. Curricular and organizational evolution of secondary school, including middle and junior high school. Relates contemporary practices to historical, philosophical, psychological, and sociological antecedents. Prerequisites: EDCI 511, EDFI 573, or equivalents.

EDCI 584. Analysis and Evaluation of Classroom Teaching (3) On demand. Elementary and secondary personnel observation, analysis, and evaluation of classroom teaching, including self-evaluation/improvement techniques. Prerequisites: teaching experience and certification.

EDCI 589. Practicum in Curriculum and Instruction (1-4) On demand. Supervised experiences within a setting of student's specialty. Must be approved by instructor prior to registration.

EDCI 590. Teaching Curriculum and Instruction at Postsecondary Level (1-3) On demand. Must have approval of student's adviser if graduate program credit desired or may be taken at discretion of student for recertification or personal growth.

EDCI 595. Workshop on Current Topics in Curriculum and Instruction (1-4) On demand. Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of student's adviser if graduate program credit desired or at discretion of student for recertification or for personal growth.

EDCI 598. Directed Research (1-4) On demand. Supervised independent research on delimited topic within discipline. Generation of new knowledge as contrasted with private reading course. Proposal for directed research must be approved by instructor prior to registration.

EDCI 599. Thesis Research (1-9) On demand. Enrollment in excess of four hours acceptable for plan I master's degree but no more than six hours creditable toward degree.

EDCI 610. Curriculum and Instructional Design (3) II, summer. An analysis of curriculum and instructional systems, structures, and designs. Representative models will be presented and discussed to facilitate the creation of student-generated designs. Prerequisite: EDCI 511 or equivalent.

EDCI 611. Advanced Theories in Curriculum and Evaluation (3) On demand. Paradigms, models, and modes of inquiry relates to theory in curriculum and evaluation; includes term paper demonstrating substantial scholarship. Prerequisites: EDCI 581 or 583, EDCI 610, and permission of instructor.

EDCI 621. Investigations in Teaching Reading (3) On demand. Comprehensive study on individual basis of research and descriptive literature on assigned topics in reading.

EDCI 622. Seminar In Reading (3) On demand. Directed study; research on topics in developmental, corrective and remedial reading programs as they operate at elementary, secondary, college, and adult levels. May be repeated to 8 hours.

EDCI 624. Reading Clinic: Diagnostic Case Studies for Children with Severe Language Disabilities (3) On demand. Experience with students in use and interpretation of test results to diagnose severe reading and language dysfunctions together with related areas. Case history method used. Prerequisites: EDCI 420, 520, 521, 523 and 525. PSYC 460 and PSYC 561; or consent of instructor.

EDCI 625. Reading Clinic: Tutorial Procedures for Children with Severe Language Disabilities (3) On demand. Small group and individual tutorial experiences with students having severe language dysfunctions. Prerequisites: EDCI 420, 520, 521, 529 and 624. PSYC 460 and PSYC 561; or consent of instructor.

EDCI 680. Advanced Seminar in Educational Curriculum and Instruction (1-3) On demand. Advanced topics within the discipline. May be repeated on approval of adviser. Prerequisite: permission of instructor.

Educational Foundations and Inquiry (EDFI)

EDFI 500. Philosophy of Education (3) I, II, summer. Influence of major philosophers on contemporary American education.

EDFI 501. Comparative Education (3) I, summer. Comparative study and evaluation of basic factors of education found in representative occidental and oriental educational systems in each cultural setting.

EDFI 502. History of Education (3) II, summer. Historical background of modern educational theory and practice.

EDFI 523. Foundations of Early Childhood Education (2) On demand. Examination of the value of early childhood education from the historical, philosophical, comparative, social, and psychological/developmental perspectives.

EDFI 525. Direct Study of Child (1-4) I. Part of behavior analysis program. Child studied using predetermined framework.

EDFI 569. Introduction to Counseling and Guidance (3) I, II, summer. Introduction to the profession. Through self-awareness activities and the exploration of counseling programs, practices, preparation, and employment possibilities, students begin to formulate a personal philosophy of guidance and to assess their interest in the appropriateness for the profession.

EDFI 570. Readings in Educational Foundations and Inquiry (1-4) I, II, summer. Supervised independent work by individual on selected problem in fields such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of adviser. Prerequisite: consent of instructor.

EDFI 571. Human Growth and Development (4) I, II, summer. Basic knowledge and concepts for understanding human behavior. Consideration of social, emotional, physical and intellectual growth patterns from infancy through maturity. Prerequisite: nine hours of psychology or consent of instructor.

EDFI 572. Seminar in Mental Health In Education (3) II, summer. Trends in mental health in schools. Building primary prevention and appropriate therapeutic intervention approaches in work with teachers in schools. Prerequisite: nine hours of psychology or consent of instructor.

EDFI 573. Adolescence (3) I, summer. Nature of adolescence and development and behavior of adolescents and pubescents in different environments; emphasis in education. Prerequisite: general psychology.

EDFI 574. Career and Life Planning Approaches (3) I, II, summer. Investigation of decision process applied to career and life planning; focus on development and implementation of career guidance programs for diverse settings with particular attention to goals, processes, and material and human resources. Prerequisite: EDFI 575.

EDFI 575. Theories and Techniques of Counseling (4) I, II, summer. Theoretical bases of counseling and the development and synthesis of the primary counseling skills and techniques.

EDFI 577. Contemporary Theory and Research in Classroom Learning (3) On demand. Theories, principles, and concepts pertaining to learning process; variables associated with basic classroom learning problems. Recent theoretical and research developments related to classroom learning problems and to current practices and innovations in educative process.

EDFI 578. Explorations in Human Potential (3) On demand. Dynamics of human interaction, exploration of self and development of human potentials in context of group. Prerequisite: permission of instructor. Graded S/U.

EDFI 579. Group Counseling Models and Procedures (3) I, II, summer. Investigation of skills and processes involved in development and implementation of group counseling/guidance programs; readings, discussion, and participation in group experiences. Prerequisites: EDFI 575 and 581.

EDFI 580. Seminar in Educational Foundations and Inquiry (1-4) I, II, summer. Topics such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of adviser. Prerequisite: permission of instructor.

EDFI 582. Principles of Elementary Guidance (3) On demand. Principles, basic concepts, and issues in elementary guidance. Prerequisite: EDFI 569 or permission of instructor.

EDFI 583. Testing Practicum (3) On demand. Selection, administration, and interpretation of standardized group tests under supervision. Open to students in guidance and related fields. Prerequisite: PSYC 460 or equivalent.

EDFI 585. Consulting Functions and Practices (3) I, II, summer. Study of consultation models and skills for implementation with teachers, parents, administrators, and other helping professionals. Prerequisites: EDFI 569, 574, 579, and 581.

EDFI 589. Guidance and Counseling Field Experience (1-4) On demand. Supervised experience in guidance and counseling programs in schools for equivalent of one day per week. One-hour seminar held weekly to discuss relevant topics and issues encountered during field experiences. Prerequisite: EDFI 569 or concurrent enrollment. Graded S/U.

EDFI 594. Education Data Processing (2) On demand. Computer applications in education and related social science fields. Concepts related to data storage, unit record equipment and the computer.

EDFI 595. Workshop on Current Topics in EDFI (1-4) On demand. Selected topics within disciplines such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of adviser.

EDFI 596. Statistics in Education (3) I, II, summer. Statistics as tool in education and research, descriptive statistics, transformation of scores, sampling and probability, linear correlation and regression, introduction to statistical inference, and basic test of significance.

EDFI 597. Research in Education (3) I, II, summer. Identification and evaluation of research problems, research designs, use of library resources, data gathering, and writing research reports. Prerequisite: EDFI 596.

EDFI 598. Directed Research (1-4) On demand. Supervised independent research on delimited topic in fields such as educational psychology, measurement, research, history, philosophy, or counseling. Involves generation of new knowledge as contrasted with private reading course. Proposal for directed research must be approved by instructor prior to registration.

EDFI 599. Thesis Research (1-9) I, II, summer. Enrollment in excess of six hours acceptable for plan I master's degree but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

EDFI 602. History and Philosophy of Higher Education (3) II. Development of forms of higher education in historical and philosophical perspective; relations between institutions of post-secondary education and other social institutions; evolving policies in worldwide systems of higher education.

EDFI 671. Seminar in Educational Psychology (3) I. Concepts and their relation to behavior as reflected in current literature and research. Prerequisite: EDFI 571 or equivalent. Graded S/U.

EDFI 672. Social Psychology (3) II. Effects of social conditions on individual, cultural influence on personality, social pressures, dynamics of group leadership, causes of minority problems, and other social problems. Prerequisites: EDFI 571 and EDFI 671.

EDFI 676. Practicum in Counseling (1-4) I, II, summer. Counseling practice with clients under supervision. Open only to students with a master's degree in guidance and counseling or advanced students in a related field. Enrollment is limited and requires advance permission of faculty. Prerequisites: EDFI 574, 575.

EDFI 677. Organization and Management of Guidance Program (3) I, II, summer. Guidance organizational theories and practices; development and management of guidance program; effective use of guidance, school and community resources; budget and facilities; legal and ethical considerations; and evaluation and accountability.

EDFI 690. Nonparametric Statistics in Education (3) On demand. theoretical study and practical application of distribution free statistical tests. Prerequisite: EDFI 596 or equivalent.

EDFI 696. Advanced Educational Statistics (3) I. Statistical inference and application of selected techniques. Chi-square, F-statistics, basic designs, measures of relationships, covariance, and other topics. Prerequisite: EDFI 596.

EDFI 791. Seminar in Cultural Basis of Education (1-4) I. Lectures from anthropology, sociology, economics, political science, business administration, and other fields.

EDFI 797. Seminar in Educational Research (3) I. Theoretical and philosophical constructs in research, designs of research projects, and formulation and critiquing of participants' research proposals. Prerequisites: EDFI 596, 597, and 696.

Courses for graduates and undergraduates

EDFI 402. Assessment and Evaluation in Education (3) I, II, summer. Assessment and evaluation applied to instructional procedures; construction of assessment tools; interpretations of assessment results. Prerequisites: EDFI 302 and one methods course. C/F hrs: 20

EDFI 411. Teachers' Role in Guidance (3) On demand. Human relations and classroom management practices which teachers may use to meet affective and cognitive learning needs of students; practical application counseling and guidance techniques and strategies which encourage positive classroom climate. Prerequisite: senior standing.

EDFI 415. Spaceship Earth Seminar (3) I. Integrating, synthesizing, environmental education seminar for upperclass and graduate students. Using inquiry approach, participants consider relationships of humankind with total environment.

EDFI 416. Philosophy of Environmental Education (3) II. Concepts and processes of environmental education including theories such as Toledo model, Strand approach, Environmental Studies Project, Boulder, and other representative models.

EDFI 417. Urban Education (2) On demand. Research, methods, and concepts from sociology and psychology discussed as basis for critically analyzing current educational practices, programs, and policies of urban schools. Resource people used. Library and field research required. Prerequisite: commitment to, or at least serious interest in, urban education.

EDFI 460. Sex Role Stereotyping and Sex Discrimination in Education (2) On demand. Education as influential institution and process in society in terms of sexism in educational materials, curriculum, structure; federal, state, local policy responses to this concern; consideration and development of other policies for action regarding sex equity in education.

EDFI 481. Leadership Training in Behavior Analysis Program (1-5) On demand. Prepares individuals to function as group leaders in academic, year-long, inservice behavior analysis program. Prerequisite: permission of instructor and enrollment in behavior analysis program.

Special Education (EDSE)

EDSE 520. Introduction to the Integrated Early Childhood Classroom (3) I. Knowledge and skills needed to teach handicapped young children in the regular classroom; the interface between general and special education.

EDSE 521. Educational Evaluation of the Young Handicapped Child (3) I. Exposure to informal assessment procedures, standardized tests, and observation systems necessary planning an appropriate individualized educational program for the young handicapped child.

EDSE 522. Parents of the Young Handicapped Child: From Education to Involvement (3) I. Rationale and techniques for working with the parents of young handicapped children; supporting parent involvement in the educational process, helping families cope, and methods used.

EDSE 523. Curriculum and Instruction for the Young Handicapped Child (3) I. Identification and development of curriculum paradigms in relationship to past and present educational programs for young handicapped children; focus on the development of pre-school program models for young handicapped children.

EDSE 549. Seminar: Problems in Special Education (3) I, summer. For leaders and resource personnel in special education; how to develop good leadership, identification or problem areas, possible solutions of these problems, evaluation of these solutions.

EDSE 550. Advanced Curriculum Development in Special Education (3) I, summer. Application of principles of preparation, development, effective use of integrated units in teaching handicapped children; emphasis on total program; goal identification, scope, sequence. Prerequisite: consent of instructor.

EDSE 551. Seminar in Curriculum Planning for Children with Specific Learning and/or Behavior Disorders (3) II, summer. Direct experiences in planned educational programs for individual children and in tutoring individuals and small groups. Consent of instructor and EDSE 553.

EDSE 552. Practicum in Teaching Children with Specific Learning and/or Behavior Disorders (1-8) I, II, summer. Experiences in variety of planning and implementation settings. Prerequisite: EDSE 551, EDSE 553 and/or consent of instructor.

EDSE 553. Seminar in Differential Diagnosis in Specific Learning and/or Behavior Disorders (3) I, summer. Recognition, identification, sorting and grouping of children with learning and/or behavior disorders for special education purposes; diagnostic instruments and procedures in classroom application. Prerequisite: consent of instructor.

EDSE 554. Seminar in Educational Evaluation of Operant Behavior Management Principles (3) I, summer. Analysis and interpretation of behavioral information and data in operant behavior-contingency management frame of reference; principles and strategies for educational intervention in learning and behavior disorders in behavior modification model. Prerequisite: consent of instructor.

EDSE 555. Seminar in Education Behavior Modification in Specific Learning or Behavior Disorders (3) II, summer. Practical application of specific operant behavior modification and contingency management techniques and strategies. Prerequisite: EDSE 554, or consent of instructor.

EDSE 560. Administration and Supervision of Special Education (3) II, summer. Organizing, financing, housing, equipping, staffing, supervising, and programming specialized educational programs for exceptional children. Prerequisite: consent of instructor.

EDSE 562. Advanced Practicum with Exceptional Children (1-6) I, II, summer. Supervised teaching experience in educational programs for exceptional children; planning and executing educational program under supervision of experienced teacher in area of concentration i.e., crippled, deaf, educable mentally retarded, trainable mentally retarded, multiple-handicapped, learning disabilities, visually handicapped. Prerequisite: consent of instructor.

EDSE 563. Community Planning for Exceptional Children (3) II, summer. Facilities and services available in planning comprehensive program for exceptional child.

EDSE 564. Counseling Parents of Exceptional Children (3) II, summer. Goals of individual adjustment of exceptional children, evaluation of techniques for gathering and utilizing information, principles and techniques of using such material in counseling parents.

EDSE 566. Rehabilitation Plan Formulation (2) Summer. Design, development, and implementation of individual client plans, based on individualized accumulative data, in operational structure of total rehabilitation process.

EDSE 567. Seminar: Professional Development in Rehabilitation (2) I. Current trends, problems, program developments in rehabilitation services; significances of rehabilitation programs.

EDSE 568. Seminar: Problems in Rehabilitation Specialization (4) II. Analysis of rehabilitation problems entailed by specialization in particular-disability counseling; laboratory-setting examination of and experience in unique counseling methods peculiar to specific disability.

EDSE 569. Principles and Procedures in Workstudy Coordination for Handicapped (3) On demand. Philosophy, history, principles, procedures, objectives, developments of work-study coordination for handicapped as profession.

EDSE 570. Readings in Special Education/School Psychology (1-4) I, II, on demand. Independent study, supervised study or selected problems, tailored readings. Proposed program of study must be approved by instructor prior to registration. May be repeated upon approval of student's adviser if department credit desired, or at discretion of student for recertification or personal growth.

EDSE 571. Process of Change in Public Schools (5) II, summer. Theoretical bases, systematic and planned strategies for effecting change in educational from sociopsychological viewpoint; role and strategies of change agent. Prerequisite: consent of instructor.

EDSE 574. Analyzing Classroom Learning Environments and Social Relations (4) I. Practicum to analyze and assess problems related to classroom learning environments; to plan program to enhance environment; to implement and evaluate plan. Theory integrated with field experience. Prerequisite: consent of instructor.

EDSE 575. Supervised Work Experience in Workstudy Coordination for Handicapped (8) On demand. Planned and supervised work experience with specific observation and participation in active work-study type program under guidance and direction of qualified supervisors.

EDSE 580. Seminar in Special Education/School Psychology (1-3) I, II, on demand. Selected topics in the discipline; content varies from one year (or semester) to next. May be repeated upon approval of student's adviser if graduate program department credit is desired or at discretion of student for recertification or for personal growth.

EDSE 589. Internship, Field Placement or Practicum in Special Education/School Psychology (1-4) I, II, on demand. Supervised experience in setting related to one's academic specialization. Proposed field placement registration *must* be approved by instructor/supervisor prior to registration. May be repeated.

EDSE 590. Teaching Special Education/School Psychology At Post Secondary Level (1-3) I, II, on demand. Pedagogic aspects of EDSE discipline in higher education. Techniques, strategies for use of special education concepts and procedures in two-year, four-year, and/or graduate institution.

EDSE 595. Workshop on Current Topics in Special Education/School Psychology (1-3) I, II, on demand. Study, readings, and development of materials related to needs of special education practitioner. Topics vary semester to semester. May be repeated on approval of adviser if graduate program department credit desired or at discretion of student for recertification or for personal growth.

Courses for graduates and undergraduates

EDSE 431. Education of Exceptional Children (3) I, II. Problems of exceptional school children: mentally retarded, learning and behavior disorders, speech-and-hearing handicapped, visually handicapped, gifted and creative; etiology, diagnosis; personal-social problems, and prognosis.

EDSE 432. Principles and Purposes of Special Education (2) I, II. Functions of public schools and governmental agencies in providing educational services for exceptional children.

EDSE 433. Education of Mentally Retarded Children (2) I, II. Understanding and teaching educable and trainable mentally retarded children: etiology diagnosis, theory educational procedures.

EDSE 437. Occupational Orientation and Job Preparation for Educable Mentally Retarded Children (3) I, II. Responsibilities of special class teacher for developing employable skills. Prerequisites: EDSE 431, EDSE 433 and EDSE 451.

EDSE 438. Problems in Evaluating, Selecting, and Adapting Specialized Instructional Materials for Exceptional Pupils (3) I, II. Analysis, comparison and use of materials with pupils of specified exceptionality in terms of educational and administrative merit. Prerequisites: EDSE 431 and EDSE 451; or consent of department.

EDSE 440. Curriculum Development and Methodology for Teaching Trainable Mentally Retarded Children (3) I, II. Materials and techniques emphasizing development and appropriate skills with practical applications. Prerequisites: EDSE 431 and EDSE 451; or consent of instructor.

EDSE 445. Sheltered Workshop-Function and Relationship to Special Education (3) I, II. Sheltered workshops in rehabilitation of mentally retarded. Techniques for job analysis and analyzing skills for specific jobs and job areas. Prerequisites: EDSE 431, EDSE 433, and EDSE 451.

EDSE 451. Educational Understanding of Children with Learning and/or Behavior Disorders (3) I, II. Multiple origins and educational significance of specific learning disabilities and/or behavior disorders.

EDSE 453. Educational Evaluation of Children with Learning Disabilities and/or Behavior Disorders (3) I, II. Identification and analysis of specific learning disorders or disabilities as direct or contributing factors in educational and behavioral failures of otherwise educationally competent children. Prerequisites: EDSE 431 and EDSE 451; or consent of department.

EDSE 461. Introduction to Education of the Deaf (3) I. History and philosophy of education of the deaf. Structure of ear and causes of deafness. Organization, support, and maintenance of programs for deaf and hard-of-hearing children. Types of instruction oral method, combined method, Rochester method, acoustic method. Prerequisites: EDSE 431 and EDSE 451.

EDSE 462. Introduction to Methods of Teaching Elementary School Subjects to Deaf and Hard-of-Hearing Children (3) II. Methods of teaching pre-school and primary elementary school subjects. Prerequisites: EDSE 431, EDSE 451, and EDSE 461.

EDSE 463. Advanced Methods of Teaching Elementary School Subjects to Deaf and Hard-of-Hearing Children (3) Methods of teaching intermediate and junior high subjects. Use of communication skills in all content subject areas. Preparing pupils to enter regular high schools or special colleges. Prerequisites: EDSE 431 and EDSE 451 and EDSE 461 and EDSE 462.

EDSE 464. Basic Language Instruction for Acoustically Handicapped Children (3) Systems of teaching language. Principles of grammar essential to any system of language instruction. Development of oral and written language readiness. Prerequisites: EDSE 431 and EDSE 451. Special education majors only.

EDSE 465. Advanced Language Instruction for Acoustically Handicapped Children (3) Development of functional language usage in both oral and written form in symbolic systems of communication and ideation for acoustically handicapped child. Prerequisites: EDSE 431 and EDSE 451 and EDSE 464.

EDSE 470. Education of Multi-handicapped Children (3) Educational dynamics, strategies, logistics, and responsibilities involved in socialization and education of multi-handicapped children. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451.

English (ENG)

ENG 500. English as Foreign Language

(1-4). Required as prerequisite to degree candidacy of all entering graduate students whose native language is not English, unless exempted on basis of proficiency examination scores. Satisfactory completion of this course, or passing equivalent proficiency examination will satisfy foreign language requirement for Ph.D. in all departments except English. (P/NP grading).

ENG 518. American Literature to 1840 (3).

Readings in about five major figures. Lectures on literary history and intellectual backgrounds.

ENG 525. Theory and Methods of Criticism (3).

Problems encountered in study of literature. Definition of such concepts as comedy, tragedy, romanticism, realism, and symbolism. Genres and conventions and relation to specific works. Application of various critical methods such as historical, psychological, cultural, and mythic to selected works.

ENG 531. Research in Language/Literature (2).

Methods of research in English, e.g., in biography, in language study, in literary criticism, etc. Practical exercises in standard reference tools and more specialized research tools in at least two distinct periods or areas of English and American literature/language.

ENG 541. Modern English Linguistics (3).

Phonology, morphology, syntax, and dialectology of current American and British English.

ENG 561. Technique of Poetry (3). Imagery, rhythm, and symbolism. Prerequisite: permission of director of M.F.A. program.

ENG 562. Technique of Fiction (3). Fictional technique in novel and short story; character development, plot, setting, mood, tone, and diction. Prerequisite: permission of director of M.F.A. program.

ENG 570. Readings in English (1-3).

Individual or group study of some phase of literature or writing not ordinarily offered in curriculum. Prerequisites: consent of instructor and approval of graduate committee. Master's level credit. Graded S/U.

ENG 571. Directed Writing (1-3). Individual projects in creative writing, under supervision of specific faculty member. Prerequisite: permission of director of M.F.A. program.

ENG 573. Technical Writing (3). Practical application of technical writing in industry, business, and the sciences. Uses workshop approach. May be repeated once for credit.

ENG 575. Technical Writing Practicum (3).

Directed writing of a substantial technical writing project within the student's cognate area. Completed project to be evaluated by at least one technical writing instructor and one instructor from the cognate area. Prerequisite: ENG 573.

ENG 581. Seminar in American Studies (3).

Interdisciplinary seminar coordinated in rotation by members of departments of history, English, philosophy, political science, sociology, and School of Art, using lectures, discussion, and papers to study problem, theme, or era.

ENG 589. Internship (1-9). Supervised professional experience within an occupational setting related to student's area of academic specialization, such as technical writing. Graded S/U.

ENG 590. Teaching of Writing (3). Theories, approaches, methods, and techniques designed to guide prospective teacher of composition in selecting approach most appropriate to his/her goals; readings and projects related to goals; current publications on writing.

ENG 591. Composition Instructors' Workshop (3) I, II. Classroom experience, observation, visitation, preparation of teaching materials, evaluation, reading in teaching of writing. In-service training required of graduate assistants and teaching fellows in English prior to and concurrent with teaching ENG 110, ENG 111, and ENG 112. Continues through two consecutive semesters. Graded S/U.

ENG 592. Directed Teaching of Writing (2).

For graduate student teaching in the general studies writing program. Student assigned to experienced, qualified writing instructor on supervisory, tutorial basis; regular conferences, observation, evaluation of other experienced instructors and of student work, presentation of material in classroom, self-evaluation. By permission of coordinator, general studies writing. Graded S/U.

ENG 593. Teaching of Literature (3) Summer only. Applying approaches, methods, and techniques for teaching literature in secondary schools and community colleges.

ENG 595. Workshop on Current Topics in English (1-4) I, II, summer on demand. Workshop on current topics and issues within discipline; topics vary from semester to semester.

ENG 597. Bibliography and Research Methods (3).

Kinds of study generated by professional interest in literature; scholarly and critical work relevant to graduate preparation in each field. Problems in literary research, including analytical bibliography and editing.

ENG 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree.

ENG 600. Old English Language and Literature (3) Alternate years. Study of essential part of our civilization. Stress on variety and excellence of surviving Anglo-Saxon poetry (including *Beowulf*) and prose.

ENG 602. Chaucer's Major Poetry/Middle English Literature (3). Chaucer's major works as part of our necessary dialogue with the past: several current varieties of Chaucer criticism. In alternate years: Langland, the Pearl Poet, Gower, and samplings from popular poetry of time.

ENG 604. Renaissance Poetry and Prose (3)

Alternate years. Poetry of major figures (such as Sidney or Spenser), of form (such as Elizabethan lyric) or of school (such as Spenserian poets), in relationship to development of poetry in period. Also, representative fiction and non-fictional prose of the 16th and 17th centuries.

ENG 605. Tudor and Stuart Drama (3) Alternate years. Dramatic forms and traditions from liturgical drama, to the plays of Kyd, Greene and Marlowe, to the plays of such dramatists as Chapman, Jonson and Webster who wrote before the closing of the theatres.

ENG 607. Studies in Shakespeare (3).

Poetry or plays and criticism; focus on specific period, type, genre, or problem.

ENG 608. Milton/17th-century Poetry (3).

Milton's poetry and prose; reference to 17th-century background. In alternate years: 17th-century poetry, including Donne and Metaphysicals (Milton excluded).

ENG 612. Augustan Age/Age of Johnson (3).

Augustans, especially Dryden, Pope, Swift; minor writers, periodical essays, satire, etc. In alternate years: Boswell, Johnson, and their circle.

ENG 614. Restoration and 18th-century Drama (3) Alternate years. Significant forms, including tragedy, comedy, heroic plays, sentimentalism.

ENG 616. 18th-century Novel (3) Alternate years. Rise of novel, major authors; minor authors who made important contributions to development of genre.

ENG 618. Wordsworth and Coleridge/Romantic Poetry and Prose (3). Poetry and prose of Wordsworth and Coleridge against background of English romanticism. In alternate years: Romantic prose and poetry (exclusive of Wordsworth and Coleridge).

ENG 620. Dickens and Hardy/19th-century Novel (3). Representative novels of Dickens and Hardy; world views, fictional technique, etc. In alternate years: major novelists exclusive of Dickens and Hardy.

ENG 622. Tennyson and Browning/Victorian Poetry and Prose (3). Works of Tennyson and Browning, seen against background of Victorian Age. In alternate years: Victorian prose and poetry (exclusive of Tennyson and Browning). Topics such as Pre-Raphaelites, aesthetics of non-fiction prose, periodical writings.

ENG 625. Eliot and Yeats/Modern British Poetry (3). Two masters of modern poetry; major works and development of poets' canon. In alternate years: representative modern British poets, exclusive of Eliot and Yeats, such as Hopkins, Hardy, Lawrence, Thomas, Auden.

ENG 628. Joyce/Modern British Novel (3). Joyce and his work as major force in modern literary tradition. In alternate years: representative modern British novelists, exclusive of Joyce, such as Lawrence, Forster, Woolf, Conrad.

ENG 630. Modern British Drama (3) Alternate years. Shaw and important dramatists of period. Backgrounds and early development of modern British drama.

ENG 632. American Transcendentalism (3) Alternate years. Writers of Transcendentalist movement, especially Emerson and Thoreau. Social and philosophical backgrounds.

ENG 633. Hawthorne and Melville (3) Alternate years. Major and selected minor works, biography and critical approaches.

ENG 634. Twain and James/19th-century American Prose (3). Major and minor works by Twain and James. Representative biography and criticism. In alternate years: representative prose (exclusive of Hawthorne, Melville, Twain and James); emphasis on fiction, but not excluding other types.

ENG 636. 19th-century American Poetry (3) Alternate years. Major figures in American Poetry through Walt Whitman. Some attention to 18th-century antecedents.

ENG 640. Frost, Stevens and Williams/Modern American Poetry (3). Three distinguished 20th-century American poets; interpretation of major works and contributions of each poet to development of modern tradition. In alternate years: representative 20th-century American poets such as Robinson, Pound, Cummings, Jeffers. Excludes Frost, Stevens, and Williams.

ENG 643. Faulkner/Modern American Novel (3). Faulkner and his work; his position as both distinctly American writer and as major force in modern literary tradition. In alternate years: other representative American novelists, such as Hemingway, Wolfe, Steinbeck, Fitzgerald.

ENG 644. Modern American Drama (3) Alternate years. O'Neill and important dramatists of period such as Odets, Robert Sherwood, Lillian Hellman.

ENG 645. Contemporary British and American Drama (3) Alternate years. Major developments in dramatic form, theory, and practice in post-war period. Representative authors may include Osborne, Pinter, Tennessee Williams, and Albee.

ENG 646. Contemporary British and American Poetry (3). Major developments in poetic form, theory, and practice in British and American poetry from 1945 to present. Representative authors may include Charles Olson, Gary Snyder, John Berryman, Elizabeth Bishop, Ted Hughes.

ENG 647. Contemporary British and American Fiction (3). Major developments in fiction (form, theory, and practice) in post-war period. Representative authors may include Hawkes, Donleavy, Flannery O'Connor, Iris Murdoch, Doris Lessing.

ENG 648. Studies in American Literature (3). Group of texts drawn from identifiable non-Anglo-Saxon culture; ethnic issues, traditions, and rhetoric.

ENG 650. Research in Composition (3). Nature and direction of research studies in composition. Topics such as evaluation of writing, composing process, grammar and writing, dialect and writing. Prerequisite: ENG 541 or equivalent course work in linguistics.

ENG 652. Language Variation (3). Effects of culture on language; principles and methods of dialect studies. Prerequisites: ENG 541 or equivalent course work in linguistics.

ENG 654. The Rhetoric of Written Discourse (3). Survey of rhetorical theory about writing from classical to modern. Topics include theories of invention, arrangement, style, kinds and purposes of discourse, nature of the composing process.

ENG 656. Graduate Writing (3). Assessment of situation and audience, methods of organization and development of ideas, vocabulary, style. Revision and editing of theses, papers, reports. For graduate students in all disciplines; assignments adjusted accordingly. Graded S/U.

ENG 660. Graduate Writers' Workshop (4). Directed individual projects with group discussion, in fiction, poetry or nonfiction. Prerequisites: (for fall and spring semesters only): advance submission of creative work and permission of director of M.F.A. program.

ENG 663. Studies in Contemporary Poetry (3). Individual or group study of contemporary poets; works related to student's interest in subject matter, form, and technique. May be repeated once.

ENG 664. Studies in Contemporary Fiction (3). Individual or group study of contemporary writers; works related to student's interests in subject matter, form, and technique. May be repeated once.

ENG 670. Readings in English (1-3). Individual or group study of some phases of literature or writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate committee. Doctoral-level credit. Graded S/U.

ENG 675. History of Literary Criticism: Classical and Romantic (3). Principal ideas of literary critics from Plato to Shelley. Concepts of tragedy, unities, decorum, moral function of literature, nature and imagination. Principles of classicism and romanticism.

ENG 676. History of Literary Criticism: Modern (3). Development of modern literary criticism from Victorian period to present. Schools and approaches of modern criticism; social, psychological, analytical, and mythic.

ENG 680. Graduate Seminar (3). Systematic study of genres or topics (poetry, fiction, drama, comparative literature, etc.), or intensive study in special literary topic, such as single author, literary school, or particular theme. May be repeated if topics are different.

ENG 686. Studies in Linguistics (3). Theories and applications of linguistics to studies in languages, literature, and related fields or disciplines.

ENG 689. Internship (1-9). Supervised professional experience within an occupational setting related to student's area of academic specialization, such as technical writing. Graded S/U.

ENG 691. Teaching English as Second Language (3). Modern approaches, methods, and techniques in teaching English as foreign language at varied proficiency levels. Prerequisites: ENG 541 or equivalent course work in linguistics or in foreign language methodology, and permission of instructor.

ENG 698. Directed Research Writing (2). Independent study course designed to help student refine and polish piece of scholarship or criticism for publication. Culminates in submission of article to scholarly journal.

ENG 760. Advanced Bibliography and Editing (3). Every third year or on demand. Theory and techniques of analytical bibliography and textual criticism. Prerequisite: ENG 597.

ENG 770. Problems in Research (1-3). Individual problems in advanced research not involved in dissertation and ordinarily not offered in curriculum. Prerequisites: consent of instructor and approval of graduate committee. Graded S/U.

ENG 780. Research Seminar (3). Scholarly research on a specific topic in literature, linguistics, composition, or rhetoric. Offered regularly in different literary periods and on different topics. Prerequisite: ENG 597.

ENG 799. Dissertation Research (1-16). Student must register for minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 27 hours in degree program.

Courses for graduates and undergraduates

ENG 442. Studies in Children's Literature (3) Alternate years. Problems in children's literature; history, criticism, trends, individual authors, types. Not open to student with credit for LEM 442. Prerequisite: ENG 342 or permission of instructor.

ENG 481. Advanced English Linguistics (3) Alternate years. Intensive study of topic in English linguistics. Topics announced in advance and vary from section to section and semester to semester. May be repeated if topics clearly different. Prerequisite: ENG 380.

ENG 482. History of English Language (3) Alternate years. Changes in sounds, grammar, usage, and meaning from Old English to present. Prerequisite or parallel: ENG 380.

Geography (GEOG)

GEOG 510. Quantitative Geographic Analysis (3) II. Concepts, methods, and utilizations of quantitative systems for describing and analyzing geographically distributed physical and cultural phenomena. Required before work on master's thesis can begin.

GEOG 511. Advanced Quantitative Methods and Spatial Analysis (3) On demand. Examination of specific methods in quantitative geography and spatial analysis. Prerequisite: GEOG 510 or consent of instructor.

GEOG 513. Seminar in Meteorology and Climatology (3) On demand. Guided research activities in meteorology and climatology. Prerequisite: GEOG 213. May be repeated upon consent of adviser.

GEOG 521. Seminar in Cartography (3) Alternate years. Research-oriented analysis of cartographic problems. Prerequisite: GEOG 322 or consent of instructor. May be repeated upon consent of adviser.

GEOG 522. Computer Cartography (3) II. Analysis and display of spatial data on two- and three-dimensional computer maps. Prerequisite: CS 400 or consent of instructor.

GEOG 523. Geography of Soils and Land Use (3) Alternate years. Advanced consideration of distribution and interrelations of world soil orders and their use. Particular regions of world with land-use problems. Prerequisite: consent of instructor.

GEOG 525. Seminar in Population Geography (3) II. Theory, description and analysis of spatial and temporal relationships between factors of population composition and change and other areally associated social and economic variables. May be repeated upon consent of adviser.

GEOG 542. Conservation Ecology (3) I. Problems of conservation and resource management. Use of interdisciplinary approach including social, physical, and biological sciences emphasized as means of analyzing problems. Prerequisite: consent of instructor.

GEOG 570. Readings in Geography (1-3) On demand. Prerequisite: consent of graduate adviser. Graded S/U.

GEOG 580. Graduate Seminar (3) On demand. Systematic study of selected topics in geography. Prerequisite: consent of instructor. May be repeated upon consent of adviser.

GEOG 581. Seminar in Geopolitics (3) On demand. Guided research activities in geopolitics. May be repeated upon consent of adviser.

GEOG 583. Seminar in Regional Geography (3) On demand. Guided research activities in geography of selected world regions. Prerequisite: consent of adviser. May be repeated upon consent of adviser.

GEOG 584. Seminar in Physical Geography (3) I. Methods used in investigations in physical geography, pursuit of such investigations of assigned problems, and critical discussion of results. May be repeated upon consent of adviser.

GEOG 585. Seminar in Economic Geography (3) II. Directed study, investigation, and research in selected problems in economic geography. May be repeated upon consent of adviser.

GEOG 586. Seminar in Cultural Geography (3) II. Geographic culture traits and geographic interpretation of how they evolved. May be repeated upon consent of adviser.

GEOG 588. Seminar in Urban Geography (3) II. Guided research activities in urban geography. Prerequisite: GEOG 426 or consent of instructor. May be repeated upon consent of adviser.

GEOG 589. Internship (1-6) I, II. Practical experience in applied geography, such as land use planning; urban and rural planning; recreational, regional, and environmental planning; and location of industrial, commercial, and health service facilities. May be repeated to six hours. Graded S/U.

GEOG 590. Teaching Geography at College Level (3) I. Examination of literature and systematic observations with evaluation of teaching performance. Required of all graduate teaching assistants.

GEOG 597. Philosophy and Research Design in Geography (3) I. Philosophy of geography, analysis of current trends, and use of geographical source material for research. Required before work on master's thesis is begun.

GEOG 599. Thesis Research (1-9) I, II. Enrollment in excess of six hours is acceptable for a plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

GEOG 402. Regional Economic Geography (3) I or II. Problems of subnational areal units in county and regional planning, poverty pockets, delivery of services; emphasis on individual projects.

GEOG 404. Climatology (3) I or II. Fundamentals and applications; drought, water resources, human comfort, health, architecture; short and long-term climatic changes.

GEOG 405. Meteorology and Man (3) On demand. Sociological, political, planning and legal aspects of atmosphere as natural resource. Prerequisite: GEOG 125 or GEOG 213.

GEOG 411. Theoretical Cartography (3) Alternate Years. Analysis of cartographic research. Four hours per week; two hours lecture or discussion and two hours of laboratory. May be repeated once upon consent of instructor. Prerequisite: GEOG 322 or consent of instructor.

GEOG 412. Use and Interpretation of Aerial Photographs (3) I. Sources, types, characteristics, uses, and limitations of aerial photographs. Training in use of standard equipment for stereoscopic viewing and height measurement.

GEOG 413. Introduction to Remote Sensing (3) II. Principles and procedures used to obtain information about natural and cultural features through imagery derived from photographic, multispectral, and side looking airborne radar sensor systems. Prerequisite: GEOG 412 or consent of instructor.

GEOG 425. Food Resources and Rural Development (3) On demand. Changes and trends in availability, production, and consumption of food resources; related rural problems such as pollution, zoning, recreating, and future expectations of rural areas by urban populations.

GEOG 426. The American City (3) I. Internal organization of cities. Ecological and land-use problems, ghetto development, urban-economic base, urban sprawl, and intra-urban delivery of services.

GEOG 427. Genetic and Regional Analysis of Physical Landscapes (3) On demand. Selected aspects of physical geography (excluding meteorology and climatology); in-depth analysis of man's natural environment. Prerequisites: GEOG 126 and GEOG 127 or consent of instructor.

GEOG 433. Soil Classification and Mapping (3) II. Classification of soils; use of soil survey equipment; preparation of soil type, slope and erosion maps of assigned areas. Prerequisite: GEOG 126 or permission of instructor.

GEOG 436. Topics in Community and Area Development (3) Alternate years. Field analysis of various problems and topics of urban and rural areas. Prerequisite: GEOG 402 or GEOG 426 or consent of instructor.

GEOG 442. Conservation: Resources and Regional Development (3) On demand. Problems of area development in relationship to cultural, economic, and physical resources; obstacles to present development, needed changes, and potentials for future growth.

GEOG 451. Historical Geography of Anglo-America (3) On demand. Reconstruction of natural environment of U.S. and Canada; how different groups perceived environment and used available resources; emphasis on how man has modified earth's surface.

GEOG 452. Geopolitics (3) II. Geographic factors influencing development of states and interrelationship of these countries.

GEOG 460. Hydrology (3). Water's role in geography, environmental systems. Hydrologic phenomena analyzed on basis of scientific interdependence, phases of hydrologic cycle, practices and applications, and socio-economic aspects. Prerequisite: GEOG 125 or GEOG 126 or GEOG 127.

GEOG 471. Oceanography (3) On demand. Geographic aspects of oceanography.

Geology (GEOL)

GEOL 511. Petrography (2) I. Second half of semester only. Identification, description, and classification of igneous, sedimentary, and metamorphic rocks through use of petrographic microscope. One lecture and two two-hour laboratories. Prerequisite: GEOL 411.

GEOL 512. Petrology of Clastics (3) I. Identification, description, classification and origin of clastic sedimentary rocks, especially sandstones, by study of thin-sections with petrographic microscope. Two lectures and one three-hour laboratory. Prerequisite: GEOL 307; prerequisite or corequisite: GEOL 411.

GEOL 513. Carbonate Geology (4) II. Detailed study of modern and ancient carbonate textures and structures, modern carbonate environments and reconstruction of carbonate diagenetic and depositional environments. Two lectures and one four-hour laboratory/demonstration/lecture. Prerequisite: GEOL 411.

GEOL 514. Advanced Igneous and Metamorphic Petrology (5) II. Development of genetic interpretations of common associations based upon hand specimens, petrography, chemistry and regional relationships of the rocks. Three lectures and two two-hour laboratories. Prerequisite: GEOL 424 or GEOL 511.

GEOL 521. Metallic Mineral Deposits (3) I Alternate years. Methods of search for and mineralogical and structural features of selected groups of metallic mineral deposits. One lecture and two two-hour laboratories. Prerequisite: consent of instructor.

GEOL 523. Sedimentary Environments (3) I. Principles and concepts involved in reconstructing ancient sedimentary depositional environments by way of lithologic, structural and biologic aspects of sedimentary rocks and use of facies models. Two lectures and one two-hour laboratory/demonstration/lecture. Prerequisite: GEOL 308.

GEOL 529. Advanced Invertebrate Paleontology (3) II Alternate years. Studies in morphology, taxonomy, classification, evolution and paleoecology of selected groups of fossil invertebrate organisms. Two lectures and one two-hour laboratory. Prerequisite: GEOL 315.

GEOL 533. Marine Paleobiology and Paleoenvironments (4) II. Principles of paleoecology and evolution; methods of paleoenvironmental and biochronological analysis. Emphasis on the Foraminifera as examples. Two two-hour lectures and demonstration sessions. Prerequisites: GEOL 308 and GEOL 315, or consent of instructor.

GEOL 536. Exploration Geophysics (3) I Alternate years. Principles and techniques of exploration geophysics; seismic, electrical, gravity, magnetic, and radioactive surveys. Two lectures and one two-hour laboratory. Prerequisites: GEOL 309 and PHYS 212, and MATH 131; or consent of instructor.

GEOL 537. Exploration Geochemistry (3) II Alternate years. Principles and techniques of exploration geochemistry; field tests and design of surveys. Two one-hour lectures and one two-hour laboratory. Prerequisites: CHEM 126 and GEOL 401, or consent of instructor.

GEOL 538. Geochemistry of Sediments (3) II Alternate years. Investigation of diagenesis of sediments. Chemical behavior of sediments, nature and evolution of pore fluids, and organic fraction of sediments. Two lectures and one two-hour laboratory. Prerequisites: GEOL 431 or consent of instructor.

GEOL 539. Glacial Geology (3) I Alternate years. Glacial processes and influence on landscape. Two one-hour lectures and one two-hour laboratory. Four one-day field trips required. Prerequisite: GEOL 310 or consent of instructor.

GEOL 540. Pleistocene Geology (3) II Alternate years. Glacial, periglacial and contemporaneous related events world wide during the Pleistocene Epoch. Prerequisite: GEOL 310 or consent of instructor.

GEOL 543. Thermodynamics of Geological Systems (3) II Alternate years. Application of principles of crystal, physical, and analytical chemistry to geologic systems. Two lectures and one two-hour laboratory. Prerequisite: consent of instructor.

GEOL 580. Seminars in Geology (2-3) I, II. Advanced seminars in specialized fields of geology covering particular subjects in detail by survey of literature and discussion. May be repeated. Prerequisite: consent of instructor.

GEOL 593. Advanced Field Geology (1-6) Summer only. Utilization of field techniques to construct geologic maps and/or stratigraphic sections of specific regions. Prerequisite: consent of instructor.

GEOL 597. Research Seminar (1-3) I, II. Selected advanced topics in geology using literature, discussion, and laboratory. May be repeated. Prerequisite: completion of one semester of graduate course work in geology and consent of instructor.

GEOL 598. Research Problems (1-3) I, II, summer. Individual work on a topic in which a student has special interest. Prerequisite: consent of instructor. Graded S/U.

GEOL 599. Thesis Research (1-6) I, II, summer. Enrollment in excess of six hours is acceptable for Plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is four hours. Graded S/U.

Courses for graduates and undergraduates

GEOL 401. Economic Geology (3) I Alternate years. Classification and genesis of metallic ore deposits illustrated by study of classic areas. Two lectures and one three-hour laboratory. Field trip required. Prerequisites: GEOL 309, and GEOL 301.

GEOL 411. Optical Mineralogy (2) I. First half of semester only. Optical properties and methods of studying natural substance with a polarizing-light microscope. Two lectures and two two-hour laboratories. Prerequisite: GEOL 300.

GEOL 412. Advanced Historical Geology (3) II. Regional and stratigraphic geology, including classical areas in North America and Europe. Prerequisites: GEOL 308 and GEOL 315.

GEOL 416. Petroleum Geology (3) I Alternate years. Principles and methods involved in the exploration for oil and gas. Two lectures and one three-hour laboratory. Prerequisites: GEOL 309 and GEOL 309.

GEOL 418. Geology of Ohio (3) I Alternate years. Bedrock and surficial geology of Ohio; state's economic mineral resources. Two lectures and one two-hour laboratory. Three full-day field trips required. Credit not given for the M.S. degree in geology. Prerequisites: GEOL 100 or GEOL 104 and GEOL 105.

GEOL 419. Vertebrate Paleontology (3) II Alternate years. Fossil vertebrates and their morphology, classification and evolution. Two lectures and one two-hour laboratory. Credit not given for both GEOL 419 and GEOL 305. Prerequisites: GEOL 100 or GEOL 101 or GEOL 105 or BIOL 202.

GEOL 420. Environmental Aspects of Geology (3) I. Contribution of geological concepts to environmental concerns. One half-day field trip required. Credit not given for both GEOL 322 and 420. Prerequisites: GEOL 104 and GEOL 310 or consent of instructor.

GEOL 422. Environmental Geology Report Writing (1) I. Preparation of environmental geology report for a single Ohio township. Several individual field trips to area. Corequisite: GEOL 322 or 420.

GEOL 431. Introduction to Geochemistry (3) I. Principles of mass action, acidity, solubility, and introductory thermodynamics; applications to natural systems. Prerequisite: CHEM 126.

GEOL 432. Geophysics (2) II. Earthquake seismology; gravity, magnetic, and temperature fields of earth; paleomagnetism; radioactive dating; plate tectonics. Prerequisites: GEOL 309, PHYS 211, and MATH 131; or consent of instructor.

GEOL 433. Stratigraphic Chorology (3) I. Biochronology, evolution, and distribution of fossil faunas through geologic time. Two lectures and one two-hour laboratory. Prerequisites: GEOL 315 and GEOL 308.

GEOL 472. Marine Geology (3) II Alternate years. Processes, sediments, and organisms of modern marine environments; interrelationships and expression in rock record. Prerequisite: consent of instructor.

GEOL 473. Field Experience in Marine Geology (1) II Alternate years. Field experience in marine environments as related to geologic record. Prerequisite or corequisite: GEOL 472, consent of instructor.

GEOL 493. Field Experience (6) Summer. Recognition and study of geologic structures, landforms, and rock units in the field. Written report required. Not open to B.S. geology majors. Prerequisites: GEOL 104 and GEOL 105, or GEOL 304 and consent of instructor.

GEOL 496. Field Course in Modern Marine Environments (1-6) summer. Field study of shallow-water marine environments. Prerequisite: consent of instructor.

German (GERM)

GERM 500. German for Graduate Students (4) Summer. For graduate students in other fields who desire to develop a reading knowledge of German. Does not count towards degree. (P/NP grading.)

GERM 501. Introduction to Graduate Study in German (3) I. Critical analysis of literary texts, approaches to literary interpretations, methods, research, and bibliography. Recommended for all candidates. Offered in AYA Salzburg Program.

GERM 502. Introduction to Stylistics (1) On demand. Textual analysis of various levels of linguistic usage. Introduction into generative aspects of German; derivational morphology; transformational grammar.

GERM 503. Translation (German-English) (1-2) On demand. Translating techniques and the most important resources. Intensive general translation practice in literary and non-literary areas followed by work on individual projects. May be repeated with different projects.

GERM 504. Translation (English-German) (1-2) On demand. Introduction to translating techniques and lexicographical tools. Structural differences; error analysis. Intensive general translation practice followed by work on individual projects. May be repeated with different projects. GERM 503.

GERM 505. German Phonology (1) On demand. Contrastive analysis of English and German sound systems; methods of teaching German pronunciation.

GERM 507. Composition (Level I) (2) On demand. Advanced practice in German composition. Complex structures, variations in style. Group and individual projects. May be repeated in Salzburg.

GERM 508. Composition (Level II) (2) On demand. Advanced study of German syntax. Contrastive analysis of English and German. Practical writing and aspects of teaching composition. May be repeated in Salzburg. Prerequisite: GERM 507.

GERM 515. German Culture and Civilization (3) Alternate years. German cultural, social and intellectual development from the late Middle Ages to the beginning of the Nazi era.

GERM 516. Contemporary German Civilization (3) Alternate years. Contemporary East and West Germany. Division and rebuilding of Germany after World War II; political and economic systems, education, mass media, geography; general social reality of two states.

GERM 519. Middle High German (2). Introduction to Middle High German. Readings in selected texts.

GERM 521. German Medieval Literature (3) Alternate years. German literature and culture from the beginning through the high Middle Ages. Readings in Minnesang, the Nibelungenlied, Wolfram von Eschenbach, Gottfried von Strassburg, and others.

GERM 522. German Literature 1300-1700 (3) Alternate years. German literature and culture from the late Middle Ages through the Baroque period. Readings in the Volksbuch, Fastnachtspiel, Schwank, and in authors such as Tepl, Brant, Luther, Sachs, Gryphius and Grimmelshausen.

GERM 523. 18th Century German Literature (3) Alternate years. Literary works and trends during the Enlightenment. Sentimentalism and Storm and Stress; Lessing and other authors.

GERM 524. German Classicism (3) Alternate years. The classical writings, mainly plays and poetry of Goethe and Schiller. Philosophical basis of German Classicism; the philosophy of Immanuel Kant and the development of German idealism.

GERM 525. German Romanticism (3) Alternate years. German Romanticism as a literary and cultural phenomenon. Readings from the major authors (Tieck, Novalis, E.T.A. Hoffmann, Eichendorff), as well as theoretical and critical writings of the period (F. Schlegel).

GERM 526. 19th Century German Literature (3) Alternate years. German literature from 1830s to 1880s in context of major social-political and intellectual trends of 19th century. Biedermeier, Junges Deutschland, Poetic Realism. Authors include Buechner, Hebbel, Grillparzer, Stifter, Keller and Storm.

GERM 531. From Naturalism to Expressionism (3) Alternate years. Growth and decline of Naturalism and reactions to it: Symbolism, Impressionism, Neoromanticism, and Expressionism. Poetry and drama from Hauptmann to early Brecht (1880-1920). Attention to general cultural developments of the time.

GERM 532. Modern German Prose to 1945 (3) Alternate years. The reaction against realism; experimentation with new forms in prose genres. Authors include Rilke, Kafka, Hesse, Thomas Mann, Musil, Doebelin, and E. Juenger.

GERM 533. German Drama Since 1945 (3) Alternate years. Post-World War II drama within the framework of social and literary relationships. Authors include Brecht, Duerrenmatt, Frisch, Weiss, and Handke.

GERM 534. German Prose Since 1945 (3) Alternate years. Selected prose works by contemporary authors: Boell, Frisch, Grass, and younger writers.

GERM 535. East German Literature (3) Alternate years. Representative writers, including Seghers, Kant, Wolf, Hacks and Mueller; socialist aesthetic theory and the cultural policy of the GDR.

GERM 541. German Lyric (2) On demand. Introduction to forms of German lyric poetry. Selected readings from major poets, with detailed analysis and interpretation.

GERM 560. Selected Topics (1-3) On demand. Topics in German language, literature or culture. May be repeated if topics are clearly different.

GERM 570. Readings in German (1-2) On demand. Supervised individual readings to meet student's special needs. Prerequisite: advance approval by graduate adviser and by instructor. Graded S/U.

GERM 580. Seminar (3). Seminar on topics in literature, culture, or language. Research paper. May be repeated with different topics.

GERM 589. Internship or Practicum (1-5) On demand. Supervised professional experience related to student's area of academic specialization. Must be approved by instructor/supervisor prior to registration. May be repeated. Graded S/U.

GERM 590. Teaching College German (1-2) I, II. Current theories and practices; observation; supervised classroom experience; discussion of teaching techniques. May be required of, and open only to, teaching assistants. May be repeated twice. Graded S/U.

GERM 591. Teaching German Literature and Culture (1) On demand. Approaches to presentation of German literature and culture at early college and advanced high school level. Interrelationships between language and culture in foreign language teaching. Recommended for current or prospective teachers.

GERM 592. Practicum in Teaching German Literature (1) On demand. Methods and practices of teaching literature, observation and supervised classroom experience; design of teaching units in literature. Open to advanced graduate students; may be repeated twice with permission of department.

GERM 595. Workshop on Current Topics in German (1-4) On demand. Current topics and issues in the discipline. Study, readings, activities and development of materials related to needs of practitioner. Topics vary; may be repeated. Repetition for credit towards a graduate degree program in German must be approved by adviser. Graded S/U.

GERM 598. Directed Research in German (1-3) On demand. Supervised independent research on specific topic within discipline. Generation of new knowledge as contrasted with private reading course. May run for longer than a single semester. Proposal must be approved by instructor prior to registration. Graded S/U.

GERM 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. No more than six hours may be counted towards degree requirements.

Courses for graduates and undergraduates

GERM 407. Classical Age of German Literature (3) Alternate years. Selected works from the classical period of German literature, especially the writings of Goethe and Schiller. Prerequisites: GERM 311 or 313, GERM 318.

GERM 409. German Romanticism (3) Alternate years. Readings from the major authors of the romantic era; introduction to the theoretical and philosophical representatives. Prerequisites: GERM 311 or 313, GERM 318.

GERM 411. Modern German Drama (3) Alternate years. Treats selected major representatives of modern German drama from Hauptmann to the present. Prerequisites: GERM 311 or 313, GERM 318.

GERM 412. Modern German Prose (3) Alternate years. Treats selected major representatives to prose fiction from about 1900 to the present. Prerequisites: GERM 311 or 313, GERM 318.

GERM 415. The German Film (3) On demand. Cultural and literary aspects of German film; emphasis may be on important developments in German film-making, thematic aspects of film, or on interrelationships between literary and cultural phenomena and the film.

GERM 417. Advanced Composition and Conversation (3) I. Development of increased facility in speaking and writing. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

GERM 418. Stylistics, Syntax and Structure of German (3) II. Practice and problems of writing style and syntax. Descriptive study of grammatical structures, contrastive analysis of English and German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

GERM 419. German Drama Workshop (3) II. Practical advanced linguistic training through active participation in theatrical projects; advanced phonetics; methods of utilizing dramatic productions as part of foreign language instruction. Prerequisite: GERM 417 or permission of instructor.

GERM 480. Selected Topics in German (1-3) On demand. Topic chosen from literature, culture or language to meet curriculum needs and student requests. May be repeated to six hours with different topics. Prerequisite: GERM 318 and two courses from GERM 311, 313, 331, 380.

GERM 482. Introduction to Germanic Linguistics (3) I. Derivation of modern Germanic languages from Proto-Indo-European. Classification and history of the Germanic language group. Development of the German language to New High German. Prerequisite: GERM 202 or permission of instructor.

GERM 491. Studies in German (1-3) Independent study project for advanced students in German. May be repeated to six hours with different projects. Prerequisite: arrangement with instructor and consent of department chair prior to registration.

Graduate Business Administration

The complete program includes the following two levels of courses:

Phase I

Maximum of 30 hours; intensive preparation for phase II; courses offered to provide the essence of an undergraduate business major:

ECON 501. Price Theory (3) Theory of firm and applications to business administration. Prerequisite: GBA 662 or consent of adviser.

ECON 502. Principles of Economics (3). Measurement and determinants of Gross National Product. Analysis of public economic policies to control price levels, employment, and economic growth. Prerequisite: GBA-662 or consent of adviser.

STAT 510. Statistical Methods (3). Accelerated courses in statistics with applications to business problems; designed for first-year MBA student without undergraduate preparation in statistics.

GBA 520. Accounting Methods (3). Accelerated course in accounting concepts and procedures; accounting function in business; managerial emphasis; designed for first-year MBA student without undergraduate preparation in accounting.

GBA 530. Production Function (3). Accelerated course in production and operations management. Concerned with design, economic analysis, and control of productive processes in organizations. Designed for first-year MBA student without undergraduate preparation in production/operations management.

GBA 536. Organization Theory and Behavior (3). Concepts, theory, research, and organizational problems in organizations. For first-year MBA student without undergraduate organizational behavior.

GBA 540. Marketing Function (4). Accelerated course in marketing; marketing function and relation to business and economy; designed for first-year MBA student without undergraduate preparation in marketing.

GBA 550. Finance Function (4). Accelerated course in finance; acquisition and allocation of funds for firm; analytical methods and decision process; designed for first-year MBA student without undergraduate preparation in finance.

GBA 560. Introduction to the Computer (3). Accelerated course in computer programming fundamentals, including program documentation and hardware; designed for first-year graduate student without undergraduate preparation in computer methodology.

GBA 590. Legal Environment of Business (3). Accelerated course in business law; legal environment and vital role law plays in all business decisions. Basic legal concepts illustrated from viewpoint of firm; designed for first-year graduate student without undergraduate preparation in business law.

The purpose of the courses in phase I is to bring the entering student of business with no prior academic training in the field up to a level of competence and understanding which enables him/her to proceed without difficulty to the more advanced level of phase II.

Phase II

Minimum of 33 hours required.

GBA 509. Economic Policy (3). Application of tools covered in micro and macro economic theory. Market and non-market economic forces which bear upon business decision making. Current economic environment provides basis for topical content. Prerequisites: ECON 501 and ECON 502 or equivalent.

STAT 511. Regression and Design (3). Statistical inference, regression analysis, topics in the design of experiments, time series analysis, and selected topic. Prerequisites: STAT 510 and GBA 562 or equivalent.

GBA 628. Managerial Accounting (3). Accounting concepts as tools for administrative evaluation and control of business operations. Nature, use, and reliability of accounting data in decision-making process; cost analysis and profit planning. May not be taken for credit by student in Master of Accountancy program.

GBA 630. Production Theory and Practice (3). Theory and application of operations and production management. Management philosophies; production cycle; simplification and diversification; materials production and quality control. Prerequisite: GBA 530 or equivalent.

GBA 632. Human Behavior in Administration (3). Review and study of theory and research as they apply to human relations in administration; contemporary, logical development and thinking, including current research and knowledge in environment, perceptions, relationships, and action.

GBA 635. Management Theory and Thought (3). Analysis of modern management thought and theory through study of 19th- and 20th-century literature. Fundamental philosophies of management and administration.

GBA 636. Advanced Organization Theory and Behavior (3). Understanding effective functioning of groups through study of organization design, dynamics, change, and development. Examination of research findings and methodology.

GBA 637. Materials and Logistics Management (3) II. Planning and control of movement and storage activities of materials in business organizations. Topics on materials and logistics system components such as facilities location, transportation, inventory requirements, materials handling, and order processing. Prerequisite: GBA 530 or equivalent.

GBA 639. Topics in Production and Operations Management (3). Recent developments in production planning and control procedures. Topics could include materials requirements planning, manpower planning, and scheduling. Prerequisite: GBA 530 or equivalent.

GBA 640. Marketing Management (3). Theory and practical applications in developing and evaluating marketing strategy, component strategies and tactics for product development, pricing, promotion, and distribution. Decision-making approach is stressed, using hypothetical marketing situation as course-long project.

GBA 641. Distribution Structure and Strategy (3). Channel conflict, vertical integration, power, and innovation. Stress on managing distribution functions; title transfer risk, financing, ordering, and inter-firm communications. Prerequisite: GBA 640.

GBA 642. Applied Marketing Research (3). Readings and discussion of research as means to reduce risks associated with decisions in marketing. Emphasis on interpretation and evaluation of results obtained by firm or available from outside research service agencies. Prerequisite: GBA 640.

GBA 643. Behavioral Theory in Marketing (3). Emphasis on applications of theories in solving marketing problems. Prerequisite: GBA 640.

GBA 648. Introduction to International Business Administration (3). Economics, financial, political, social, and cultural environment in which American businessman conducts affairs abroad. Development of empathy toward foreign attitudes and understanding of foreign environments.

GBA 649. International Business Operations (3). Major policies and practices of firms operating in foreign environments. Topical problems in major functional areas of business administration incorporated with cases and specific company examples. Prerequisite: GBA 648.

GBA 650. Financial Management (3). Case method approach to acquisition and allocation of funds for non-financial firms; working capital management; capital budgeting, debt vs. equity, and dividend policy. Executive view stressed.

GBA 652. Management of Financial Institutions (3). Operating problems of major types of financial institutions; acquisition and allocation of funds. Relationships to Federal Reserve System, Treasury, and money and capital markets explored.

GBA 653. Fundamentals of Investment Analysis (3). Investment theory, security analysis, and management of investment portfolios of individuals and institutions.

GBA 654. Financial Risk Analysis (3). Nature of financial risks, methods of handling risk, risk analysis, and recognition of exposure examined. Decision making from corporate risk management point of view through case problems.

GBA 656. Capital Budgeting (3). Capital investment policies of firm. Cost of capital, rationing, rate of return, and capital replacement. Problems in estimating earnings, cost savings, obsolescence. Importance of reviewing past decisions. Buy versus lease. Social cost considerations. Prerequisite: GBA 650.

GBA 657. Money and Capital Markets (3). Structure and functioning of money and capital markets. Flow of funds accounts used to assess effects of business conditions and monetary and fiscal policy of demand for and supply of funds by supplier and user groups. Implications for financial management, investment management, and loan management.

GBA 663. Operations Research in Business (3). Basic philosophy underlying formulation of business' problems in quantitative terms. Linear programming and related special cases, inventory theory, network models and other techniques.

GBA 664. Operations Research in Business II (3). Continuation of GBA 663. Advanced topics in linear programming, integer programming, non-linear programming, and inventory models with complications. Prerequisite: GBA 663 or equivalent.

GBA 665. Operations Research III (3). Problems of incorporating risk into decisions, models. Topics include queuing theory, stochastic inventory models, Markov chains, and stochastic mathematical programming. Prerequisites: STAT 511 and GBA 663.

GBA 681. Business Information Systems (3). Introduction to systems and effect of computerized systems upon firm. Prerequisite: GBA 580 or introductory computer course at undergraduate level.

GBA 682. Business Systems Analysis (3). Systems analysis and design for computer based information systems. Determination of information requirements; design of systems and methods. Feasibility study contents, project management techniques. Prerequisite: GBA 580 or adequate undergraduate preparation.

GBA 683. Cases in Business Information Systems (3). Computerized management information system or total information system concept in action. Case approach used. Prerequisite: GBA 682 or consent of instructor.

GBA 690. Special Problems in Business (1-3). Individual or group study of some phase of business administration. Must be approved by director of graduate studies in business. Graded S/U.

GBA 692. Teaching Collegiate Business Administration (3). Philosophy, psychology, and methodology of teaching business administration subjects in collegiate institutions. Knowledges and techniques applicable to use in management responsibilities. No prerequisites.

GBA 693. Social Responsibility (3). Social responsibility of corporations; topics include white collar crime, social accounting, legal and restructuring of the corporate form, and government regulation. No prerequisites.

GBA 695. Policy and Strategy Determination and Implementation (3). Strategy and policy from executive point of view. Objectives, environment forces, institutional resources, and social values as related to determination and implementation of strategy and policy. Rational decision making emphasized.

GBA 697. Research Techniques (1). Research design, data collection methods, and formulation of research projects; reading, lecture, and group discussion.

GBA 698. Business Research Projects (3). Research project on topic approved by adviser who is member of graduate faculty; involves research methodology, collection and analysis of data, and presentation of results. Contact director of graduate studies for details and registration. Graded S/U.

GBA 699. Thesis Research (1-4). Credit for thesis study. Minimum acceptable total for MBA degree is six hours.

Service courses for non-business majors

MKT 410. Principles of Advertising and Promotion (3) I, II, summer. Theory and decision making in advertising and promotion. Topics relate to the promotional mix from a manager's point of view, including decisions about promotional campaign design, budgeting, message and media selection, and measurement of effectiveness. Prerequisite: MKT 300.

MKT 411. Creative Strategies and Tactics in Advertising (3) I, II. The creative process applied to advertising and promotion. Theory and practice of creative aspects of advertising strategy development and tactical implementation: copy, layout, and production. Prerequisites: MKT 300 and MKT 410.

MKT 412. Managerial Problems in Advertising (3) I, II. Case studies evaluating opportunities for effective advertising program development and implementation. Experience will be gained in making actual decisions regarding: the setting of objectives; campaign design; budget allocation; message and media selection. Prerequisites: MKT 300 and MKT 410.

Graduate College

GRS 500. Workshop on Instruction in Higher Education. Fundamental concepts in educational philosophy, classroom management, and professional ethics for college-level classes. Lectures and laboratory. A one-week (eight hours daily) interdisciplinary course, required of new graduate assistants and teaching fellows.

GRS 600. Computer Applications in Higher Education. Introduction to computing as tool for research and instructional use in university. Presentation of two contrasting computer languages. Primary emphasis on applications in individual's area of academic interest. Familiarization with and use of university's computing facilities. Problem-solving exercises. Consent of instructor required for admission into course. Cannot be used to satisfy language requirement in degree program.

Health, Physical Education and Recreation (HPER)

HPER 509. Administrative Management in Leisure and Recreation Services (3). Theory and application of methods and techniques; acquisition and allocation of funds; process approach to supervision, training, development, and evaluation of recreation personnel. Prerequisite: consent of instructor.

HPER 510. Philosophy and Principles of Health and Physical Education (3). Varying philosophies of modern education and of contemporary health education and physical education. Analysis of contrasting philosophies leading to development of individual position papers and corresponding principles for implementation.

HPER 511. Measurement and Evaluation in Health and Physical Education (3). Measurement and evaluation procedures as applied to the educational programs of health and physical activity. Construction and critiquing of techniques of evaluation in psychomotor, cognitive and affective domains including validity and reliability theory. Prerequisite: PEP 402 or an undergraduate evaluations course.

HPER 512. Application of Principles of Learning to the Teaching and Coaching of Physical Activity (3). Learning principles practically applied to teaching and coaching of physical activity with focus on the state of learners/performers and nature of the skill. Prerequisite: undergraduate motor learning course or consent of instructor.

HPER 513. Programming in Physical Education for Special Populations (3) I. Examination of special populations in relation to their needs, interests in movement experiences. Also, etiology of disability, observation strategies and assessment in a mainstreamed or self-contained setting.

HPER 515. Therapeutic Recreation Systems (2) II. Theoretical and philosophical foundations of therapeutic recreation; history, role function, programming and assessment of therapeutic recreation in treatment and rehabilitation settings.

HPER 517. Biomechanics (3). Biomechanics as applied to sports and related physical activities. Analysis will be based on selected mechanical principles.

HPER 530. Administration of Interscholastic Athletics (3) I, alternate summers. Opportunities for professionals to identify, investigate, analyze, and seek resolutions to problems in the administration of contemporary athletic programs.

HPER 531. Athletic and Recreation Facility Planning and Management (3) II, alternate summers. Theory and practice concerning problems related to construction, programming, financing and evaluation.

HPER 535. Sport and Society (3). Cultural trends motivating forces, socializing processes, and other psycho-social parameters of American sport. Seminar-type course with opportunity for individual research and class interaction.

HPER 539. Contemporary Elementary School Physical Education (3) I. Historical and philosophical development of current trends in elementary school physical education reflecting movement as the content of physical education and methods which share the decision-making role with the learner.

HPER 540. Curriculum Development in Elementary School Physical Education (3) II. Components of an emerging curriculum; practical application of theories when examining and developing materials.

HPER 541. Program Planning for Secondary School Physical Education (2). Curricular planning approaches for physical education examined. Evaluative and informative gathering techniques for the identification of student needs.

HPER 570. Readings in HPER (1-2) I, II, summer on demand. Independent study, supervised study or selected problems, and readings. Proposed program of study must be approved by instructor prior to registration.

HPER 580. Seminar in HPER (1-4) I, II, summer on demand. Selected topics within the discipline. Content varies from one year (or semester) to next. May be repeated upon approval of student's adviser if graduate program department credit desired or at discretion of student for recertification or for personal growth.

HPER 581. Seminar in Health Education (3). Studies and discussions in health education; topics leading to research paper or thesis.

HPER 582. Issues in Physical Education (3). Survey, interpretation and evolution of past and present issues facing the profession. Solution-oriented investigation of contemporary issues through literature search, study of procedure for issue resolution and composition of original professional manuscripts.

HPER 589. Internship, Field Placement, or Practicum in HPER (1-3) I, II, summer on demand. Supervised experience within setting related to one's academic specialization. Proposed field placement registration must be approved by instructor/supervisor prior to registration. May be repeated.

HPER 590. Teaching HPER at College Level (1-2). Focus on pedagogic aspects of HPER discipline within higher education. Techniques, strategies for utilization of HPER concepts and procedures in two-year, four-year, and/or graduate institution.

HPER 596. Workshop on Current Topics in HPER (1-3) I, II, summer on demand. Study, readings, and development of materials related to needs of HPER practitioner. Topics vary from semester to semester. May be repeated on approval of student's adviser if graduate program department credit desired or at discretion of student for certification or for personal growth.

HPER 597. Research Methods in Health, Physical Education and Recreation (4) I, summer. Identification and evaluation of research problems, designs, use of library resources, data gathering, application of statistical principles, and writing of theses and research reports.

HPER 598. Directed Research in HPER (1-4) I, II, summer on demand. Supervised independent research on approved delimited topics. May run for longer than one semester. Proposal must be approved by instructor/supervisor prior to registration.

HPER 599. Thesis Research (1-9) I, II, summer. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours. Graded S/U.

Courses for graduates and undergraduates

HED 409. School Health Services and School Environment (3) I, II, summer. School health services and school environment including principles, organization and administration of: health appraisal, health counseling, communicable disease control, educational adjustments, emergency programs, record keeping and a safe school environment. Prerequisite: junior standing. C/F Hrs.: 20.

HED 452. Driver Education - Advanced Instructors Course (3) II, summer. Second of two courses needed to qualify a student to organize, administer and teach driver education in secondary schools. C/F Hrs.: 15.

HED 480. Seminar in Teaching Controversial Issues in Health Education (2) I, II. Teaching methods and procedures in discussing human sexuality, controversial life styles, addictive elements and contemporary issues of controversy such as death education, nutrition, the healthy arts, child abuse and socialized health care. Prerequisite: junior standing. C/F Hrs.: 5.

PEP 443. Physiological Effects of Motor Activity (3) II and alternate summers. Physiological adaptation to exercise; metabolic and cardiovascular components, heat stress, body composition, other related topics. Includes laboratory experiences. Prerequisite: BIOL 332.

SSM 431. Problems in Intramural and Extramural Sports (2) II. Planning, promoting and administering intramural and recreational sports programs.

History (HIST)

HIST 511. Latin American History (3) II. Studies in geographical, chronological, or topical units of Latin American history designed to draw together significant trends in area's development. May be repeated.

HIST 521. Problems-Early American History (3) I. Intensive study of selected problems, such as the nature of colonial system, social aspects of American Revolution, reasons for break with England; emphasis on bibliography and on variant interpretations.

HIST 526. Problems-19th Century America (3) II. Selected themes and historiographical problems, such as development of political parties, reform movements, territorial expansion, Civil War and Reconstruction response to industrialism.

HIST 529. Problems-20th Century America (3) I. Principal works and interpretations of American political and diplomatic history in the 20th century.

HIST 535. Problems-American Social and Intellectual History (3) II. Basic topics in American social, cultural, and intellectual history such as development of social sciences, religious institutions and thought, medical institutions and thought, and rise of public education.

HIST 547. Problems in Modern European History (3) I. Major interpretive problems in European history since 1750.

HIST 551. American Historiography (3) I. American historical writing in 19th and 20th centuries; emphasis on principal philosophical tendencies.

HIST 552. European Historiography (3) I. Major historical writers and schools of Europe; emphasis on intellectual problems involved in writing history.

HIST 556. Archives Administration (4) I. Professional ethics and standards, principles of planning, public relations, programs, financial matters, and director-trustee relations. Three hours of lecture and two hours of laboratory.

HIST 557. Museum Administration (4) II. Implementation history; curatorial concepts and responsibilities, educational and cultural activities, research, and publications. Three hours of lecture and two hours of laboratory.

HIST 562. Great European Revolutions (3) II. Comparative analysis of major European revolutions from 18th to 20th century, considering preconditions of revolutionary situations, elite and insurgent roles, influence of ideology. Reading knowledge of foreign language helpful, but not prerequisite.

HIST 570. Graduate Readings in History (1-3) I, II, summer. Supervised individual readings to meet student's special needs. Prerequisite: consent of department. May be repeated.

HIST 580. Graduate Seminar (1-3) I, II, summer. Systematic study of selected topics in history. Content of seminar varies from semester to semester. May be repeated on approval of graduate adviser.

HIST 581. Seminar in American Studies (4) II. Interdisciplinary seminar coordinated in rotation by members of departments of history, English, philosophy, political science, sociology, and the School of Art using lectures and subsequent discussion and papers to study problem, theme, or era.

HIST 583. Topics in Psycho-History (3) I. Basic assumptions of Freudian theory and applicability of those assumptions to American and European historical experience.

HIST 584. Problems in Modern East Asian History (3) II. Selected topics, primarily political and diplomatic, in East Asian history in 19th and 20th centuries. May be repeated.

HIST 589. Internship Archives (1-4) I, II, summer.

HIST 590. Teaching History at College Level (3) I. Problems including examination of literature, and systematic observations and evaluations of teaching performance in various situations. Required of all graduate assistants and teaching fellows. Graded S/U.

HIST 595. Workshop on Current Topics in History (1-3) I, II, summer. On demand. Study, readings, and development of materials related to needs of history teachers. Topics vary from semester to semester.

HIST 596. Quantitative Methodology (3) II. Quantitative methodology in historical research, examination of quantitative sources, and training in their use.

HIST 597. Historical Methods (3) I. Introduction to research and writing stressing the importance of an interdisciplinary approach, introducing a variety of methodological techniques, and inculcating an understanding of basic research procedures.

HIST 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of nine hours acceptable for a plan I master's degree, but no more than nine hours creditable toward degree.

HIST 612. Seminar: Latin American History (3) II. Examination of literature and source material dealing with a specific area of Latin American history.

HIST 622. Seminar: American Revolution and Early United States (3) II. Directed research on economic, political, social, intellectual, and military aspects of revolutionary and early national period (1763-1815).

HIST 624. Seminar: Society and Economy of Old South (3) I. Economy of ante-bellum South including agricultural, commercial, and transportation systems, and of distinguishing characteristics of ante-bellum Southern society with view to understanding historical relationship to secession, Civil War and recent South.

HIST 625. Seminar: American Indian (3) II. Study and directed research of pre-Columbian Indian cultures, European and U.S. governmental policies toward Indians, persistence of racism, and Indians' contribution to American culture.

HIST 634. Seminar: American Social and Intellectual History (3) II. Selected problems and topics in 19th and 20th century American social, cultural, and intellectual history. Culminated by preparation of article for professional journal.

HIST 636. Seminar: America in 1930s (3) II. Topics in political, economic, social, cultural, and intellectual history of 1930s.

HIST 638. Seminar: 20th Century American Diplomacy (3) II. Topics and problems of American foreign policy since 1900.

HIST 640. Seminar: State and Local History (3) II. Selected problems in local history.

HIST 651. Seminar: Modern European History (3) I. Selected problems in modern European history.

HIST 671. Seminar: Modern Russian and Soviet History (3) I. Topics in Russian and Soviet history; introduction to relevant historiographical tools and to problems of conducting research in Russian and Soviet history.

HIST 691. Topics in History (1-3) On demand. Study of selected topics of subject areas within field of history.

HIST 799. Dissertation Research (1-16) I, II, summer. Credit for dissertation study. Enrollment in excess of 30 hours acceptable for a Ph.D. degree but no more than thirty hours creditable toward degree.

Courses for graduates and undergraduates

HIST 401. Caesar and Christ: Social Worlds of Late Antiquity and Early Christianity (3) I. Basic issues and problems involved in tensions and conflicts between pagan and Christian that were eventually accommodated in 4th century A.D.; social disaffection, political resistance, and cultural alienation.

HIST 411. Modern Mexico (3) II. Analysis of first Latin-American state to experience political, social, and economic revolution in 20th century; causes of the revolution, leaders and institutions produced, emergence of Mexico as relatively stable and progressive state.

HIST 413. Caribbean and Spanish Main (3) II. Political, economic, and social development of Greater Antilles and Spanish Main from 17th to 20th centuries; war and trade, slavery, revolution, caudillism, and communism in Caribbean.

HIST 414. Canada (3) I. European colonial rivalry, problems of European-settled colonies, emergence of colonial self-government, confederation movement, search for national identity, nature of commonwealth nation, role as mediator in Anglo-American relations, importance as independent neighbor.

HIST 415. Spain and Portugal (3) II. Political, economic, and social development of Iberian peninsula from invasion of Moors to 20th century dictators; re-conquest, reign of Hapsburgs, Spanish Civil Wars, regimes of Franco and Salazar.

HIST 419. Westward Movement in America (3) I. Development of Trans-Mississippi West during 19th century; American Indian, territorial expansion, sectional conflict, economic development.

HIST 420. Topics in American West (3) II. Selected topics in history of Trans-Mississippi West; frontier literature, territorial system, California, conservation, Indian affairs, modern west.

HIST 421. American Colonial History, 1492-1763 (3) I. European backgrounds of American history, establishment of European settlements and institutions, emergence of colonial culture, conflict between France and England for New World.

HIST 422. American Revolutionary Era, 1763-1815 (3) II. Causes, course, and consequences of War for Independence; organization of government and emergence of national party system; economic, social, diplomatic problems of young republic.

HIST 425. Conflict and Division in U.S. (3) I. Economic, social, political institutions of 1815-1860; Old South and forces that produced Civil War.

HIST 426. Civil War and Reconstruction, 1861-1877 (3) II. Political, economic, and cultural conditions during War; resulting problems to peoples and governments of both sections continuing through postwar period.

HIST 427. American South, 1865-Present (3) II. Reconstruction South, new industrial growth, evolution of Southern agriculture, racial and labor problems. South in American political life, southern education and culture, South today.

HIST 428. Emergence of Modern America, 1877-1900 (3) I. Transformation of U.S. from isolated, agrarian nation into modern, industrialized world power; economic, social, cultural, and political problems which attend this change.

HIST 429. Progressive Era and Years of Republican Ascendancy, 1900-1933 (3) II. American political and economic progressivism; great crusade of World War I; "normalcy" and business society of Twenties; great crash and early depression years; intellectual, cultural, social change of Roaring Twenties.

HIST 430. Recent U.S. History (3) II. Politics, public policy, and society from the New Deal to the present.

HIST 433. American Constitutional History (3) I. Constitutional developments from the framing of the Constitution in 1787, which established a federal republic that protected states rights, to the creation of a national republic following the Civil War that actively aided the rapid industrialization of the United States and created the need for business regulation, a social welfare state, national protection of civil rights, and an expanded role of presidential leadership.

HIST 436. American Social History (3) I. Select topics in the American social and emotional experience during the 19th and 20th centuries: nationalism, regionalism, urbanization, immigration, ethnicity, professionalism, gender, childrearing, education, and mental health. No prerequisites.

HIST 438. U.S. Foreign Policy: World War II-Present (3) II. Origins of Cold War and containment policy toward Soviet Union, U.S. response to communism in China, Korean War; complex causes and controversial strategies; U.S. involvement in and failure in Vietnam; Cuban missile crisis and movement toward "deterrence."

HIST 441. Classical Hellenism (1000-400 B.C.) (3) I. Ancient Greek society and culture from "dark ages" through "golden age" of 5th century. Resourcefulness of Hellenism in democratic politics, imperialistic policies, and classic products of Periclean Athens. Weakness of Greek civilization in coping with crises engendered by Atheno-Peloponnesian war.

HIST 442. Roman Revolution: From Gracchi Through Caesar Augustus (3) II. Crisis of social turbulence, political violence, and cultural ambivalence that marked Rome's transition from city-state to world state; inquiry into how and why Roman archaism, republicanism, and imperialism contributed to collapse of Late Republic and creation of Early Empire.

HIST 444. The Making of Europe (3) II. Selected cultural, religious, political, and economic aspects of the Middle Ages which laid the framework for modern European Civilization; cross-cultural contacts with the Christian and Islamic East.

HIST 448. Modern European Society and Thought (3) II. Major social and intellectual trends in modern European society, including liberalism, socialism, Marxism, fascism, existentialism and post-war disillusionment.

HIST 454. European Foreign Relations, 1914-Present (3) I. Foreign policies and diplomatic practices of the great powers and their statesmen: World War I, postwar quest for stability; World War II, Europe in the Cold War; contemporary problems.

HIST 458. England, 55 B.C.-1689 (3) I. Major constitutional, economic, political, religious, and social developments through the 17th century; making of the Anglo-Saxon kingdom, feudal government and society, crisis of late medieval England, Tudor restoration of order, 17th-century civil war and revolution.

HIST 459. Great Britain, 1689-Present (3) II. Growth of parliamentary government; the impact of the Enlightenment, the French Revolution, and industrialization; Victorian England; political and economic reform; two world wars and their consequences.

HIST 462. British Empire-Commonwealth (3) I. Rationale of imperialism, expansion of Britain overseas, development of colonial holdings, evolution of concept and reality of Commonwealth of Nations.

HIST 464. History of France Since 1815 (3) II. Social and economic development of France, 1815-Third Republic; Jacobin radicalism, emergence of French labor movement; France between two world wars; Vichy and the Resistance; problems of Fourth and Fifth Republics.

HIST 468. Medieval and Imperial Russia, 900-1825 (3) I. Radical, political, and religious origins; development of autocracy; national and imperial problems to death of Alexander I.

HIST 470. Modern Russia, 1825-Present (3) II. Revolutionary origins; social, economic, political position in 19th and 20th centuries.

HIST 471. Education and Revolution in Russia (3) II. Russian-Soviet struggle to create perfect society dominant in world through interplay of education and revolutionary ideology as reciprocal political tools.

HIST 481. History of Africa, 18th Century-Present (3) II. Anti-slavery movement, rise of forest and savannah kingdoms, Islamic revival, impact of Christianity, European exploration, imperialism, colonialism, nationalism, and rise of modern African states.

HIST 483. Revolution and Tradition in Modern China (3) II. China from decline of Ch'ing dynasty to rise of People's Republic, Problems of culturalism, nationalism and Maoist strategy for successful peasant revolution. China's cultural legacy, struggles for unity and independence, China's relations with U.S.

HIST 486. Japan: New Superstate (3) II. Japan's successful modernization since "opening" to West in 1853; political development, industrialization, expansion; Japan's rise from defeat in World War II to world economic power.

Journalism (JOUR)

JOUR 402. Journalism Law and Ethics (3) I, II, summer. Legal concept of freedom of the press, constitutional guarantees, libel, privacy, copyright, broadcast regulation, contempt, obscenity, ethical problems, right to know. Open to non-majors.

JOUR 403. The Editorial (3) I. Techniques of persuasive and critical writing and the role of editorial opinion in modern mass media. Prerequisites: "B" and "C" or better in JOUR 103 and 300; junior standing.

JOUR 414. Supervision of High School Publications (3) II. For teachers or prospective teachers of high school journalism or advisers of school newspapers or yearbooks. Problems of editorial supervision, business management and production.

JOUR 431. Interpretive Reporting (3) I. Research and writing of in-depth reports, interpretive news, profiles, background stories, news analyses. Investigative reporting of current events and issues. Prerequisites: "C" or better in JOUR 312 or consent of instructor.

JOUR 432. Newsroom Decision Making (3) II. Newspaper editorship, goal setting, problem analysis, readership analysis, publication conception and creation, staff management. Prerequisite: senior standing or consent of instructor.

JOUR 433. Government and the News Media (3) I. Origins and concept of freedom of information and evolution in constitutional law and judicial decisions; contemporary problems of censorship in publishing, broadcasting and film. Open to non-majors.

JOUR 435. Press and Society (3). Press as institution: its role, content, effects and responsibilities as a cultural force in society. Open to non-majors.

JOUR 440. Public Relations Techniques (3) I, II. Application of public relations theories, tools and techniques to the public relations campaign. Research, planning and execution are practiced. Prerequisites: senior status and "C" or better in JOUR 303, JOUR 340 and JOUR 380.

JOUR 470. Foreign Press Systems (3) I. Social, economic and political factors, organization and controls in the national news and informational systems of countries around the world. Open to non-majors.

JOUR 471. International Media Networks (3) II. Factors affecting flow of world news and public information; regional and international networks. Open to non-majors.

JOUR 490. Special Problems in Journalism (1-3) I, II, summer. Research problems, practical projects or intensive reading to meet needs of student's special interests. Prerequisite: instructor's consent.

Library and Educational Media (LEM)

LEM 502. Curricular Integration of Educational Media (3) I. Principles of instructional development applied to selection of media when considered as functions of instructional systems. Lecture; viewing/listening/answering; problem solving. Prerequisite: LEM 428 or consent of instructor.

LEM 506. Management of Media Programs (3) II. Media programs in school systems including development and evaluation of media programs and effects of new curriculum patterns. Lecture; discussion/questioning; problem solving. Prerequisites: LEM 428 and 450 or consent of instructor.

LEM 533. Television in Education (3) I. Role of the media specialist in initiation, coordination, and evaluation of television instruction in school systems. Lecture; practice/drill; viewing/listening/answering; problem solving; laboratory.

LEM 570. Independent Study in Educational Media (1-3) I, II, summer. Supervised independent study of selected problems in library and educational media. May be repeated with consent of advisor. Proposal must be approved by instructor prior to registration.

LEM 580. Seminar in Educational Media (3) On demand. Problems and issues in library and educational media through intensive investigation of research materials. Discussion/questioning; problem solving.

LEM 581. Current Trends in Media Programs (3) II. Investigation of current issues and problems of the school media field. Topics vary from offering to offering. May be repeated with consent of advisor. Discussion/questioning; problem solving. Prerequisite: 10 hours of graduate LEM courses.

LEM 589. Field Experience in Educational Media (2) I, II, summer. Planned field experience and seminar to study and analyze media programs. Practicum. Prerequisites: 10 hours of graduate LEM courses and consent of advisor. Graded S/U.

LEM 595. Workshop in Educational Media (1-2) On demand. Study, readings, and development of materials to meet needs of practitioners. Topics vary from offering to offering. May be repeated with consent of advisor.

LEM 597. Research in Educational Media (3) I. Identification and evaluation of research problems, research designs, and writing of research reports. Discussion/questioning; problem solving; independent learning/self-instruction.

LEM 598. Directed Research in Educational Media (1-3) On demand. Supervised independent research in delimited topic. Proposed research must be approved by advisor prior to registration.

LEM 599. Thesis Research (1-9) On demand. Credit for thesis study. Minimum acceptable total for plan I master's degree is four hours.

Courses for graduates and undergraduates

LEM 403. Reference Services and Materials (3) II. Basic sources of information and use in providing library/information/media services. Lecture; discussion/questioning; viewing/listening/answering; problem solving. C/F hrs.: 25.

LEM 404. History of Books and Libraries (2) On demand. Development of books and libraries from earliest times to the present with emphasis on their roles in the preservation and communication of information. Lecture; discussion/questioning; viewing/listening/answering. C/F hrs.: 4.

LEM 405. Government Publications (3) I. Nature, use, acquisition, and organization of printed materials issued by federal, state, and local governments and international agencies. Lecture; discussion/questioning; practice/drill; laboratory. Prerequisite: LEM 403 or consent of instructor. C/F hrs.: 17.

LEM 407. Selection of Materials (3) II. Principles of selection and acquisition of print and nonprint materials. Lecture; discussion/questioning; practice/drill; practicum; role-playing; problem solving. C/F hrs.: 40.

LEM 408. Classification and Cataloging (3) I. Tools and basic procedures of technical processing and organizing of library/media/information materials. Lecture; discussion/questioning; practice/drill; problem solving; laboratory; practicum. C/F hrs.: 40.

LEM 428. Advanced Utilization of Educational Media (3) I. Audiovisual materials to motivate, persuade, instruct. Selection, production, use, and evaluation. Lecture; discussion/questioning; viewing/listening/answering; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 16.

LEM 430. Preparation of Instructional Materials (3) II. Planning, designing, and producing instructional materials in terms of stated objectives. Laboratory; practicum; discussion/questioning; problem solving. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 22.

LEM 431. Visual Communication in Instruction (3) On demand. Role of visual stimuli in teaching/learning environments. Emphasis on instructional drawing. Lecture; practice/drill; problem solving; laboratory. Prerequisite: LEM 301 or consent of instructor. C/F hrs.: 40.

LEM 434. Individualizing Instruction with Educational Media (3) I. The application of educational technology (equipment, materials, and instructional design techniques) to the conceptual and operational aspects of individualized instruction. Lecture; viewing/listening/answering; problem solving; independent learning/self-instruction. Prerequisite: LEM 301 or 428 or consent of instructor. C/F hrs.: 20.

LEM 441. Storytelling (3) I, II. Technique and practice of storytelling in libraries, classrooms, etc. Selection of traditional and modern literature to tell and read aloud. Lecture; practice/drill; viewing/listening/answering; role playing. Prerequisite: ENG 342 or consent of instructor. C/F hrs.: 8.

Mathematics and Statistics (MATH)

MATH 505. Topics in Geometry (3). Basic higher geometry including sets, logic, postulational systems, transformations, and invariants.

MATH 513. Applied Differential Calculus (3). Analytic geometry in two and three dimensions, limits, the derivative, differentiation techniques, partial derivatives, and applications of differential calculus. Credit not applicable toward degree in mathematics.

MATH 514. Applied Integral Calculus (3). Definite and indefinite integral, integration techniques, multiple and iterated integrals, sequences, series, and applications of the integral. Credit not applicable toward degree in mathematics. Prerequisite: MATH 513 or equivalent.

MATH 515. Matrix Theory and Linear Algebra (3). Elementary operations on matrices, topics from linear algebra on applications. Credit not applicable toward degree in mathematics.

MATH 519. Topics in Mathematical Biology (3). Mathematical modeling techniques in the biological sciences. Prerequisite: consent of instructor.

MATH 521. Logic (3). Propositional calculus, predicate logic, first order theories. High level introduction to logical theories with no prerequisite except considerable mathematical maturity.

MATH 525. Set Theory (3). Axioms of set theory, definitions and basic properties of relation and functions, axiom of choice and its equivalent, cardinal numbers, ordered sets, ordinal numbers.

MATH 533. Algebra I (3). Groups, rings, fields, and other algebraic structures.

MATH 534. Algebra II (3). Continuation of MATH 533.

MATH 538. Linear Algebra (3). Vectors and matrices, quadratic forms, positive definite matrices, convexity, classical inequalities, generalized inverses. Prerequisite: consent of instructor.

MATH 541. Probability Theory I (4). Axiomatic foundations of probability theory; discrete and continuous type random variables and their distributions; random vectors and their functions; special probability distributions including multivariate normal; generating functions; limiting moment generating functions; weak law of large numbers and central limit theorem. Simple random sampling; sampling from univariate and bivariate normal; exact sampling distributions; theory of point estimation; sufficiency, completeness, unbiased estimation, Cramer-Rap inequality. Prerequisite: MATH 430 or consent of instructor.

MATH 542. Mathematical Statistics II (4). Maximum likelihood estimation, Bayes and minimax procedures; Neyman-Pearson theory of testing hypotheses: power function, most powerful and uniformly most powerful tests. Theory of confidence estimation and interrelationship with tests of hypotheses; shortest length intervals; likelihood ratio tests; decision theory; analysis of variance; nonparametric procedures; sequential probability ratio test. Prerequisite: MATH 541.

MATH 544. Stochastic Processes (3). Stochastic models including discrete and continuous time, Markov chains and Brownian motion; introduction to topics: Gaussian processes, queues, theory of dams and storage, epidemic models, branching processes, renewal processes. Prerequisite: MATH 541.

MATH 545. Statistical Distribution Theory (3). Distributions, their transformations and characterizations, exact sampling distributions; approximate distributions; Gram-Charlier and Edgeworth series; Monte Carlo method; asymptotics including delta method. Prerequisite: MATH 541 or consent of instructor.

MATH 546. Nonparametric Statistical Inference (3). Nonparametric estimation; sufficiency, completeness, and unbiased estimation; tests of hypotheses without specification of underlying distribution; rank tests; tolerance and confidence sets; consistency and power of various tests; robust methods. Prerequisite: MATH 542.

MATH 547. Sequential Statistical Inference (3). Sequential parametric estimation; stopping rules and stopping variables, lower-bound for variance of an estimate, Wald's equation, Wald's sequential probability ratio test and its properties; Fundamental Identity of Sequential Analysis; fixed-width confidence estimation; special sequential tests of composite hypotheses. Prerequisite: MATH 542.

MATH 549. Introduction to Information Theory (3). Entropy of finite schemes; entropy of stationary source; Shannon-McMillan-Breiman Theorem; ergodicity; noiseless coding; compression coefficient; memoryless channels, etc. Prerequisite: MATH 541

MATH 550. Statistical Consulting (1-3). Individualized instruction and in-depth experience in all phases of statistical consulting. Prerequisite: Background in mathematical statistics, regression, and design of experiments. Graded S/U.

MATH 551. Topology I (3). Topological spaces, separation properties, product and quotient topologies, compactness, connectedness, homotopy, fundamental group and covering spaces, geometry of simplicial complexes.

MATH 552. Topology II (3). Differentiable manifolds, DeRham cohomology, simplicial homology, and DeRham's theorem. Additional topics as time permits.

MATH 555. Graph Theory (3). Trees, connectivity, matchings, colorings, planar graphs, etc.; applications of graph theory to other branches of mathematics and to real-world problems such as the travelling salesman problem, the personnel assignment problem, etc. Often algorithms will be included and their efficiencies analyzed. Prerequisite: consent of instructor.

MATH 561. Complex Analysis I (3). Complex numbers, analytic functions and differentiation, elementary functions, power series, complex integration with applications to function theory.

MATH 562. Complex Analysis II (3). Representation theorems, analytic continuation, normal families, Riemann mapping theorem, with additional topics such as entire functions, univalent functions, special functions, and approximation functions.

MATH 565. Real Analysis I (3). Riemann-Stieltjes integration, theory of metric spaces, sequences and series of functions, Stone-Weierstrass theorem, power series.

MATH 566. Real Analysis II (3). Lebesgue measure and integration. Construction of Lebesgue measure, definition and properties of Lebesgue integral. Convergence theorems. Functions of several variables, inverse and implicit function theorems. Additional topics if time permits.

MATH 570. Advanced Readings in Mathematics (1-4). Independent reading and study in mathematical literature. Prerequisite: Consent of instructor.

MATH 580. Seminar in Mathematics (1-4). Discussion, papers, and projects appropriate to special interests of participants; training in research methods.

MATH 590. Seminar on Teaching College Mathematics (1). In-service training for graduate students to develop skill in oral communication of mathematics and planning of course development at undergraduate level. May be repeated to two hours. Graded S/U.

MATH 591. Seminar on Teaching College Mathematics (1). Current trends of thought in educational philosophy for planning course development and eliciting student response. Prerequisite: MATH 590. Graded S/U.

MATH 595. Workshop in Mathematics or Statistics (1-4). Development of selected topics and issues of current interest in mathematics or statistics. May be repeated for credit. Graded S/U.

MATH 597. Research Techniques (1). Study of form and bibliographic practices appropriate for preparation of master's thesis. Special attention to peculiar conditions arising in preparation of mathematical material.

MATH 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

MATH 605. Topics in Geometry (3). Selected topics from linear geometry; differential geometry; Riemannian geometry, etc. Prerequisite: consent of instructor.

MATH 629. Topics in Logic (3). Selected topics from model theory; recursion theory, etc. Prerequisite: consent of instructor.

MATH 633. Group Theory (3). Solvable and nilpotent groups; extension; free groups and free products. Prerequisite: consent of instructor.

MATH 634. Rings and Modules (3). Modules over principal ideal domains; subdirect sums and direct sums; prime radical and Jacobson radical; prime primitive and semi-primitive rings; Wedderburn's structure theorem; projective, injective, completely reducible modules. Prerequisite: consent of instructor.

MATH 639. Topics in Algebra (3). Selected topics from finite groups; Artinian groups, number theory, algebraic number fields; universal algebra; homological algebra, etc. Prerequisite: consent of instructor.

MATH 640. Multidimensional Statistics (3). Multivariate distributions having specified marginals. Random orthogonal transformations, T-squared, S-squared and Wishart distributions; profile analysis; distribution of characteristic roots, covariance structures, classification and cluster analysis; robust multivariate statistics. Prerequisites: MATH 432 and MATH 542 or consent of instructor.

MATH 641. Advanced Probability Theory I (3). Probability spaces, random variables, and random vectors, distribution function and properties, stochastic independence, expectation, strong limit theorems; characteristic functions and properties, infinite divisibility. Prerequisite: MATH 665.

MATH 642. Advanced Probability Theory II (3). Continuation of MATH 641. Decomposition theorems, central limit problem, conditional expectation, and martingale theory. If time permits, probability on metric spaces. Prerequisite: MATH 641.

MATH 644. Topics in Probability (3). Selected topics from stochastic processes, harmonic analysis, probability on topological groups, characteristic functions, etc. Prerequisite: consent of instructor.

MATH 645. Advanced Mathematical Statistics (3). Advanced theory of estimation and hypothesis testing. Prerequisites: MATH 541 and MATH 542.

MATH 646. Advanced Mathematical Statistics (3). MATH 645 continued. Prerequisite: MATH 645.

MATH 649. Topics in Statistics (3). Selected topics from multivariate analysis, decision theory, nonparametrics, Bayesian inference, etc.

MATH 659. Topics in Topology (3). Selected topics from proximity and uniform spaces; 3-manifolds; algebraic topology; differential topology, etc. Prerequisite: consent of instructor.

MATH 664. Topics in Complex Variables (3). Selected topics from cluster sets, entire functions; geometry of zeros of polynomials; potential theory; univalent functions, etc. Prerequisite: consent of instructor.

MATH 665. Real Analysis III (3). Continuation of master's level real analysis sequence with measure theory. Additional topics from metric spaces, functions of bounded variation, differentiation, Vitali covering theorem and its applications, etc. Prerequisite: MATH 566.

MATH 666. Real Analysis IV (3). Continuation of MATH 665 with additional topics in functional analysis. Prerequisite: MATH 665.

MATH 667. Functional Analysis (3). Continuation of MATH 666. Prerequisite: MATH 666.

MATH 669. Topics in Real Analysis (3). Prerequisite: consent of instructor.

MATH 729. Seminar in Logic (3). Prerequisite: consent of instructor.

MATH 730. Seminar in Algebra (3). Selected topics from lattice theory, local rings, ordered groups, ring theory, semigroups, etc. Prerequisite: consent of instructor.

MATH 744. Seminar in Probability (3). Selected topics from probability on algebraic structures. Prerequisite: consent of instructor.

MATH 749. Seminar in Statistics (3). Selected topics from non-parametric statistics, sequential analysis, etc. Prerequisite: consent of instructor.

MATH 759. Seminar in Topology (3). Prerequisite: consent of instructor.

MATH 764. Seminar in Complex Variables (3). Prerequisite: consent of instructor.

MATH 799. Dissertation Research (1-16).

Courses for graduates and undergraduates

MATH 400. Topics in Mathematics (3). Selected topics in mathematics not included in existing courses. May be taken twice for credit. Prerequisite: consent of instructor.

MATH 401. Number Theory (3). Divisibility, prime numbers, congruences, prime modulus, quadratic residues, quadratic reciprocity law, numerical functions, factorization of integers, elementary diophantine equations, and applications. Prerequisite: MATH 339.

MATH 402. Modern Geometry (3) I. Axiomatic development of neutral and Euclidean geometry. Introduction to non-Euclidean geometry. Prerequisite: MATH 339.

MATH 403. Modern Algebra I (3). Topics from groups, normal subgroups, homomorphisms, theorems of Lagrange and Cayley, rings, ideals, Euclidean domains, abstract vector spaces. Prerequisite: MATH 339.

MATH 404. Modern Algebra II (3). Continuation of topics from MATH 403. Prerequisite: MATH 403.

MATH 405. Projective Geometry (3). Algebraic techniques to study projective properties of geometric configurations and plane curves, principle of duality, projective transformations, cross ratios, intersection theory, and classical theorems. Prerequisite: MATH 339.

MATH 414. Advanced Mathematics for Elementary Teachers (5) II. History of elementary mathematics, infinite sets, non-Euclidean geometry, and other selected topics. Prerequisite: Grade of C or better in MATH 242 or 243.

MATH 421. Foundations of Mathematics I (3) II. Logic; set theory (including informal discussion of infinite sets and cardinals); axiomatic method (including models, consistency, and independence). Prerequisite: MATH 339 or consent of instructor.

MATH 422. Foundations of Mathematics II (3). Topics in the foundations of mathematics. Prerequisites: MATH 421, 313, or consent of instructor.

MATH 426. Mathematics of Life Contingencies (3) II. The mathematics of pensions and life annuities, single life functions, measurement of mortality, net level premium reserves, multi-life functions, joint life probabilities, last survivor and general multi-life functions. Prerequisite: MATH 226 or consent of instructor.

MATH 430. Advanced Calculus (3). Infinite sequences and series, uniform convergence, improper integrals, partial derivatives, Jacobians, change of variables, and optimization. Prerequisite: MATH 233.

MATH 432. Linear Algebra with Applications (3). Matrices and vector spaces, eigenvalues, orthogonal matrices, positive definite matrices, quadratic forms. Possible applications: differential equations, Markov chains, least squares. Prerequisite: MATH 332 or consent of instructor.

MATH 434. Vector Calculus (3). Differential calculus of vector functions, inverse and implicit function theorems, line and surface integrals, theorems of Green, Gauss, and Stokes. Prerequisites: MATH 233 and 332.

MATH 437. Qualitative Theory of Differential Equations (3). Existence theorems for linear and nonlinear equations, systems of first order linear equations, nonlinear equations and stability, applications. Prerequisite: MATH 337.

MATH 439. Boundary Value Problems of Differential Equations (3). Boundary value problems, Sturm-Liouville theory, singular boundary conditions, Fourier series, partial differential equations of mathematical physics, e.g. heat, wave, and Laplace's equation in one and several dimensions. Applications. Prerequisite: MATH 337.

MATH 441. Probability and Statistics I (4) I. Probability spaces, discrete and continuous random variables and their distributions, expected value, and Central Limit Theorem, sampling distributions, estimation of parameters, and tests of hypotheses. Prerequisite or corequisite: MATH 233.

MATH 442. Probability and Statistics II (4) II. Continuation of MATH 441. Maximum likelihood estimation, Neyman-Pearson lemma, most powerful tests, class data, regression analysis, nonparametric statistics. Prerequisites: MATH 441 and 332.

MATH 445. Applied Probability (3) I. Probability models for applications, finite Markov chains, queueing systems, Poisson process, applications to genetics, diffusion, computer systems. Prerequisites: MATH 332 and 441.

MATH 451. Numerical Analysis (3) I. Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation, zeros of polynomial and transcendental functions, numerical differentiation and integration, solution of linear systems by direct and by iterative methods, matrix inversion, selected algorithms programmed for solution on computer. Prerequisites: MATH 332 and programming experience. Not open to students with credit for CS 451.

MATH 452. Numerical Analysis (3) II. Computation of eigenvalues and eigenvectors of matrices, least squares and approximation, numerical solution of initial value and boundary value problems in ordinary differential equations. Topics from: spline, trigonometric, and Chebychev approximation, numerical solution of partial differential equations, and optimization techniques. Prerequisites: MATH 337 and programming experience. Not open to students with credit for SC 452.

MATH 461. Introduction to Complex Analysis (3). Complex numbers, complex valued functions, differentiation of complex valued functions, analytic functions, power series, integration, contour integrals, residues and poles, conformal mapping, applications. Prerequisites: MATH 334, 465, consent of instructor.

MATH 465. Introduction to Real Analysis (3) I. Sets, functions, and properties of real numbers, numerical sequences and series, limits, continuity, uniform continuity for real functions, differentiation and Riemann integration. Prerequisite: MATH 233.

Music (MUGS)

MUGS 500. Opera Theater (2) I, II. Designed to develop stage techniques for advanced students in production of scenes and complete operas.

MUGS 501. Choral Literature (2) Summer. Chronological study and analysis by performance, recordings, and scores of small and large choral works from Renaissance to present. Emphasis on gaining repertoire of fine choral music particularly suitable to various performance levels.

MUGS 502. Instrumental Literature (2) Summer. Chronological study and analysis by recordings and scores of instrumental works for large ensembles from Renaissance to present. Emphasis on gaining repertoire of band and orchestral music suitable to various performance levels.

MUGS 503. Critique and Analysis of Music Theory (2) I, summer. Review and critique of music theory involving techniques of analysis and part-writing in chorale style. Prerequisite: placement examination in music theory.

MUGS 504. Psychology of Music (2) I. Psychological responses to music including the role of memory, rhythmic and melodic organization, affective responses, musical talent, learning and reading music.

MUGS 507. Advanced Structural Analysis (2) I, II, summer. Technique of understanding music from standpoint of form, harmony, orchestration, and history. Required of each graduate music student. Prerequisite: MUGS 503 or equivalent.

MUGS 508. 20th Century Analysis Seminar (2) I, II. 20th-century practices concerning form, rhythm, melody, harmony and counterpoint – avant-garde and electronic music included. May be repeated. Open automatically to graduate students in composition, to others by consent of instructor.

MUGS 509. Composition Seminar (2) I, II. Musical styles and techniques of 20th-century music through compositional and analytical approaches, considering influences of past. May be repeated. Prerequisite: consent of instructor.

MUGS 510. Source Readings in Music Education (2) I. Aesthetic basis of music education related to positions of prominent philosophers and educators. Development of personal philosophy of music education.

MUGS 511. Repertoire and Pedagogy (2) I, II. Required of students majoring in applied music. Research in music literature and pedagogy for each major applied area. May be repeated to six hours.

MUGS 512. Source Readings in Music I (2) I, summer. Seminar on literature of history of music covering Medieval, Renaissance, and Baroque periods. Prerequisite: placement exam in music history.

MUGS 513. Source Readings in Music II (2) II, summer. Seminar on literature of history of music covering Classical, Romantic, and Modern periods. Prerequisite: placement exam in music history.

MUGS 514. Advanced Choral Conducting (2) Summer. Supplements and complements each student's own individual preparation in choral conducting.

MUGS 515. Advanced Instrumental Conducting (2) Summer. Supplements and complements each student's own individual preparation in instrumental conducting.

MUGS 516. Kodaly Approach in Elementary Music Instruction (2) II, summer. Kodaly method; knowledge, skills, and techniques of working effectively with elementary children. Actively involves participants in Kodaly sequence as it applies to elementary music education in American schools.

MUGS 517. Seminar in Orchestral Performance (2) II. Structure and form of standard orchestral repertoire; consideration of problems of conducting these works. May be repeated to four hours.

MUGS 518. Seminar in Band Performance (2) Summer. Structure and form of standard repertoire of band literature; consideration of problems of conducting these works. May be repeated to four hours.

MUGS 519. Seminar in Choral Performance (2) Summer. Structure and form of standard repertoire of choral literature; consideration of problems of conducting these works. May be repeated to four hours.

MUGS 520. Score Reading and Analysis (2) II. Designed to equip prospective conductor with skills in handling clefs, transpositions, performance directions, style characteristics, and related problems of full score. Prerequisite: consent of instructor.

MUGS 524. Orff and Training Elementary Children's Voices (2) II, summer. Orff method of elementary music instruction; knowledge, skills and techniques for working effectively with American students. Development of choral groups and training children's voices.

MUGS 525. Seminar in Performance Practice (2) I. Advanced topical seminar on source readings in history of performance practice.

MUGS 526. Seminar in Music History (2) II, summer. Alternates with MUGS 528. Advanced topical seminar on source readings in selected period of music history. Prerequisites: MUGS 512 and MUGS 513 or equivalent.

MUGS 528. Seminar in Style Analysis (2) II, summer. Alternates with MUGS 526. Advanced topical seminar on source readings in musical style analysis. Prerequisite: MUGS 512 and 513 or equivalent.

MUGS 529. Seminar in Music Literature (2) I. Alternates with MUGS 530. Advanced topical seminar on source readings in genres of music literature. Prerequisites: MUGS 512 and 513 or equivalent.

MUGS 530. Seminar in Musical Instruments (2) I. Alternates with MUGS 529. Advanced topical seminar on source readings in history of musical instruments. Prerequisites: MUGS 512 and MUGS 513 or equivalent.

MUGS 534. Building Instructional Programs in Music (2) I. Application of humanist and behaviorist views, concept learning, creativity, human development, and motivation to the development of instructional programs in music. Prerequisites: MUGS 504 and MUGS 510 or permission of instructor.

MUGS 570. Special Problems in Music (1-4) I, II, summer. Selected areas and problems treated in depth. Offered to individual students or to groups of students as needed. Prerequisites: consent of instructor and chair of graduate studies.

MUGS 580. Graduate Seminar in Music (1-4) I, II, summer, on demand. Study of selected topics within the discipline. Content of seminar varies from one year or semester to the next. May be repeated on approval of graduate adviser.

MUGS 595. Workshop on Current Topics in Music (1-4) I, II, summer, on demand. Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of student's adviser if graduate program credit is desired or at discretion of student for re-certification or for personal growth. May be repeated.

MUGS 597. Research Techniques (2) I, summer. Study of music bibliography and research skills, practical experience in the development of writing skills. Required of each graduate music student.

MUGS 598. Directed Research (2) I, II, summer. Specialized application of bibliography techniques to research in area of degree concentration. Thesis/document formulation and procedures. Prerequisite: MUGS 597. This course is prerequisite to registration for MUGS 599.

MUGS 599. Thesis Research, Document and Recital, or Composition (1-6) I, II, summer. Credit for thesis or document study or recital. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours will be counted for degree credit. Minimum acceptable total for degree is four hours.

APPLIED MUSIC – INDIVIDUAL INSTRUCTION

Individual study in applied music is offered in piano, voice, organ, and all string, wind, and percussion instruments. A \$45 fee is assessed for each half hour per week per semester of individual instruction. A student enrolled for applied music has access to practice rooms and equipment without charge, in accordance with schedules and regulations determined by the College of Musical Arts. Each course may be taken for 1, 2, or 3 hours of credit.

MUGS 521. Applied Percussion

MUGS 531. Applied Trumpet

MUGS 532. Applied French Horn

MUGS 533. Applied Trombone

MUGS 535. Applied Tuba

MUGS 536. Applied Euphonium

MUGS 541. Applied Flute

MUGS 542. Applied Oboe

MUGS 543. Applied Clarinet

MUGS 544. Applied Saxophone

MUGS 545. Applied Bassoon

MUGS 561. Applied Piano

MUGS 562. Applied Harpsichord

MUGS 563. Applied Organ

MUGS 572. Applied Voice

MUGS 581. Applied Violin

MUGS 582. Applied Viola

MUGS 583. Applied Cello

MUGS 584. Applied Double Bass

MUGS 585. Applied Harp

Courses for graduates and undergraduates

MUCH 401. History and Literature of Jazz (2) I, summer. Jazz from African influences through present developments, personalities involved in stylistic change.

MUCH 402. Beginning Wind and Percussion Instrument Repair (1) I. Basic practices and techniques.

MUCH 403. Counterpoint I (2) I Alternate years. 16th-century counterpoint.

MUCH 404. Counterpoint II (2) II Alternate years. 18th-century counterpoint; tonal counterpoint in three and four voices; canon, invention, fugue, chorale prelude.

MUCH 406. Problems in Music History (2) I, II, summer. Research through topics and problems in music history. Prerequisite: consent of instructor. May be repeated to eight hours.

MUCH 407. Performance Practice (2) On demand. Performance practice in music; improvisation, ornamentation, accompaniment, instrumentation, rhythm, and tempo.

MUCH 408. Chamber Music Literature (2) On demand. Selected major chamber works of various periods. Reading on all forms and media.

MUCH 412. Opera Literature (2) On demand. Styles, interpretation, traditional performances of various schools.

MUCH 420. Problems and Techniques of Ethnomusicology (2) On demand. Topics and techniques in ethnomusicology. Open to students interested in all music as aspects of culture.

MUCH 424. Electronic Music I (2) I. Language, literature, and equipment of electronic music. Problems of live electronic music.

MUCH 425. Electronic Music II (2) II. Students realize tapes in electronic music studio under faculty supervision. Prerequisite: MUCH 424.

MUSP 415. Organ Construction (2) II. Chronological history of design and construction of the organ.

MUSP 416. Church Music (2) II On demand. Music of the major Western religions; plain-song, hymnology, liturgies. Prerequisites: MUCH 131 and 132 or equivalent.

MUED 450. Introduction to Adult Group Piano Teaching (2) II Alternate years. Materials, supervised teaching, and program development appropriate for adult level class. Open to students with strong piano background. Consent of instructor required.

MUSP 467. Piano Technology (1) I. Appreciation of piano building, repair, and tuning. Minor repairs, regulation, and art of tuning. Prerequisite: consent of instructor.

Organization Development (ORGD)

ORGD 670. Introduction to Organization Development (2) I. Build learning community, establish learning goals, develop conceptual/theoretical foundations for organization development and review research strategy and design.

ORGD 671. Self-Awareness and Personal Impact (3). Provides prospective organization development practitioners with awareness of their impact upon others within organizations, individual perceptions, recognition of human responses, and development of understandings in group processes.

ORGD 672. Organizational Behavior and Application (3). Provides organization development students with foundation, theories, concepts and practice in building theoretical models used in organizational development to diagnose, understand, and develop organizational change strategies.

ORGD 673. Organization Development Technology and Theory of Intervention (3). Provides students with organization development theories and concepts; intervention theory and organization development technologies including organization assessment, strategies for teambuilding, conflict resolution and problem solving at dyadic, intra-group, inter-group, and total organizational level. Involves the study of the processes involved in OD intervention.

ORGD 674. Change Strategies in Organizations (3). Development of students skills in designing and testing organizational interventions including role learning in change, impact analysis, evaluation methodology, and extensive practice in intervention design.

ORGD 675. Techniques of Organization Analysis and Research (2). Applied research concepts for systematic organization analysis. Preparation for thesis work.

ORGD 677. Organizational Systems and Analysis of Behavior (3). Relationships of structural, technical, and environmental factors as they impact human processes in organizations.

ORGD 678. Organizational Diagnosis and Intervention Design (3). Organizational analysis methodology and theoretical framework used to collect, analyze, and feedback data to organizations which documents intervention designs. Practice in intervention design.

Philosophy (PHIL)

PHIL 501. Critical Analysis (4) I or II. Review of elementary logic, treatment of symbolic logic and investigation and examination of the relationships of logic and philosophy.

PHIL 504. Aesthetics (3) I. Advanced consideration of nature of aesthetic attitude. Aesthetic experience studied in relation to formal, material, and associational values of experienced object. Aesthetic types such as beautiful, sublime, tragic, and comic are analyzed.

PHIL 536/537. Applied Philosophy Seminar (4) and (4) I, II. A two-course sequence exploring the application of philosophy to teaching and non-academic careers and examining the philosophical aspects of several specific social issues.

PHIL 561. Supervised Practicum (1-8) I, II, summer. Supervised experience designed to enhance student's ability to use philosophical thinking and concepts in dealing with problems which arise in specific job or vocation. May be repeated. Graded S/U.

PHIL 562. Practicum Issues (4) I, II, summer. Examination of issues in practicum in terms of philosophical skills and concepts that have been developed in program. Aimed at development of a thesis proposal. Must be taken in conjunction with PHIL 561, Supervised Practicum. S/U.

PHIL 570. Directed Readings (1-4) I, II, summer. Tutorial study of selected philosophical issues or topics not offered in regularly scheduled courses. Must be approved by tutorial instructor prior to registration. May be repeated.

PHIL 580. Seminar in Philosophy (1-4) I, II, summer on demand. Systematic study of selected topics within the discipline. Content varies from one year (or semester) to next. May be repeated upon approval of student's adviser if graduate program department credit desired or at discretion of student for personal growth.

PHIL 581. Seminar in American Studies (3) II. Interdisciplinary seminar coordinated in rotation by members of departments of history, English, philosophy, political science, sociology, and School of Art, using lectures and subsequent discussion and papers to study problems, theme, or era.

PHIL 595. Workshop on Current Topics in Philosophy (1-5) I, II, summer on demand. Study, readings, and development of materials related to needs of philosopher or teacher of philosophy. Topics vary from semester to semester.

PHIL 598. Independent Research (1-3) I, II, summer. Independent study of selected philosophical issues or topics of special interest to student. Must be approved by graduate adviser prior to registration. May be repeated. Graded S/U.

PHIL 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

PHIL 403. Topics in Logic (3) I, II. Content varies from year to year. Topics include: modal logic, meta-theory of propositional and predicate logic, philosophy of logic. May be repeated for credit. Prerequisite: PHIL 303 (or equivalent) or consent of instructor.

PHIL 406. Philosophy of Language (3) I

Alternate years: offered 1982-83. Historical and contemporary theories of meaning; their use in resolving traditional philosophical controversies and in providing foundation for contemporary analytic philosophy; various interdisciplinary connections.

PHIL 412. Theory of Knowledge (4) I, II.

Traditional epistemological issues and concepts combined with an in-depth treatment of some epistemological problem(s). Offered alternate years. Prerequisite: twelve hours of philosophy.

PHIL 414. Metaphysics (4) I, II. Traditional metaphysical issues and concepts combined with an in-depth treatment of some metaphysical problem(s). Offered alternate years. Prerequisite: twelve hours of philosophy.

PHIL 415. Topics in American Philosophy (3) I, II. Theme or themes central to American philosophy. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.

PHIL 418. Philosophy of History (3) I, II.

Nature of historical knowledge and certain metaphysically oriented theories of history. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.

PHIL 423. Philosophy In Historical Perspective (4) I, II.

Historical development and cultural background of a philosophical movement, issue or period combined with an in-depth study of views of a major philosopher within that context. The latter will emphasize the integration of the philosopher's metaphysical, epistemological, and normative theories into a coherent world view. May be repeated. Prerequisite: twelve hours of philosophy.

PHIL 425. Moral and Social Philosophy (4) I, II.

An in-depth treatment of some theme(s) in social philosophy combined with a survey of traditional ethical theories as a background to social philosophy. Prerequisite: twelve hours of philosophy.

PHIL 431. Topics in Philosophy of Science (3) I, II.

Content varies from year to year. Topics include: nature of scientific explanation, causality, contemporary empiricism, philosophy of biology, methods, presuppositions, concepts of behavioral sciences. May be repeated for credit. Prerequisite: three hours in PHIL and/or course work in sciences or consent of instructor.

PHIL 433. Philosophy and Physics of Space and Time (3) II.

Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes, Greek concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Course presupposes high school level mathematics only. Cross-disciplinary; cross-listed in PHYS.

PHIL 470. Readings and Research (1-3) I, II.

Supervised independent work in selected areas. Prerequisites: twelve hours in PHIL and consent of chair of department. May be repeated to six hours.

PHIL 480. Seminar In Philosophy (3) I, II.

In-depth examination of one specific philosopher, philosophical movement, or problem. Determined by need and interest of student. Prerequisite: three hours in PHIL (excluding PHIL 103) or consent of instructor.

Physics (PHYS)**PHYS 501. Techniques In Experimental Physics (4) I.**

Laboratory-oriented course designed to study various experimental techniques of current use in physics and engineering.

PHYS 504. Statistical Mechanics (2) II.

On demand. Phase space, thermo-dynamic laws; ergodic theorem; Liouville's theorem; micro-canonical and canonical ensembles; quantum statistics, with applications to theory of gases, solids, and simple quantum systems. Prerequisite: PHYS 401 or equivalent.

PHYS 505. Advanced Theoretical Physics (5) II.

Elements of classical mechanics, electrodynamics and quantum mechanics. Prerequisites: PHYS 402, 417 and 418, or equivalents.

PHYS 507. Signal Processing (2) I.

Introduction to techniques of signal processing; spectral analysis of continuous signals, sampling, discrete Fourier transforms and fast Fourier transforms, convolution, correlation and filtering. Prerequisite: consent of instructor.

PHYS 523. Applied Quantum Mechanics (2) I

On demand. Applications of quantum theory. Second quantization techniques, harmonic oscillator, angular momentum, interaction of radiation field with matter, self-consistent field theory, and density matrix methods. Prerequisite: PHYS 505 or equivalent.

PHYS 530. Special Topics in Physics (2)

On demand. Seminar on subject in modern physics representing an important advance in field or special competence of individual staff members. Prerequisite: consent of instructor.

PHYS 570. Readings In Physics (1-3) I, II,

summer. Individual registration. Special topics in specific areas of physics suited to needs of individual student. May be repeated to eight hours. Prerequisite: consent of instructor.

PHYS 580. Seminar in Physics (1)-I; II.

Systematic study of selected topics in physics. May be repeated to six hours. Graded S/U.

PHYS 595. Workshop on Current Topics in Physics (1-4) I, II,

summer on demand. Topics and issues within the discipline; topics vary from semester to semester.

PHYS 597. Research Techniques Seminar (1-2) I.

Applied study of form and bibliographic practices in writing research paper in physics. A plan I student registers for one hour, and a plan II student registers for two hours. Graded S/U.

PHYS 598. Directed Research in Physics (1-2) I, II.

Supervised independent research on particular topic. Suitable for work toward paper for M.S. plan II or M.A.T. degrees, but open to others interested in physics research. Prerequisite: one hour of PHYS 597.

PHYS 599. Thesis Research (1-9) I, II,

summer. Credit for thesis study. Enrollment in excess of nine hours is acceptable for plan I master's degree, but no more than six hours may be credited toward degree. Minimum acceptable toward degree is two hours.

Courses for graduates and undergraduates**PHYS 401. Methods of Theoretical Physics I (3) I.**

Systems with more than one variable quantity; basic field theory, systems governed by rate equations; vibrating systems; Lagrangian and Hamiltonian dynamics; Fourier analysis; special functions arising from physical systems. Prerequisites: PHYS 212 and one year of calculus.

PHYS 402. Methods of Theoretical Physics II (3) II

Alternate years. Computational physics with applications of: Laplace's equation, wave and diffusion equations. Complex variable analysis. Rigid body motion and the eigenvalue problem. Prerequisite: PHYS 401.

PHYS 403. Stellar Structure and Evolution (3) I

Alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 and consent of the instructor. Not open to students with credit for ASTR 403.

PHYS 410. Solid State Physics (3) II

Alternate years. Continuum and atomic theories of solids, lattice vibrations, specific heat of solids, electron theory of metals and semiconductors. Superconductivity. Three lecture-recitations. Prerequisite: PHYS 307.

PHYS 412. Infrared Molecular Spectra (2) II

Alternate years. Origin of spectra of simple molecules. Prerequisite: PHYS 301 or course in physical chemistry.

PHYS 417. Quantum Mechanics (3) II

Alternate years. Duality of matter and radiation, state functions and interpretation, Heisenberg uncertainty principle, wave equations and principles of wave mechanics, elementary applications of Schroedinger's equation, operator methods, and approximation techniques. Prerequisite: PHYS 401.

PHYS 418. Electricity and Magnetism I (3) I

Alternate years. Electric and magnetic fields; Maxwell's theory of electromagnetic field with applications in propagation, absorption, reflection, transmission of radiation. Prerequisites: PHYS 401 and one year of calculus.

PHYS 419. Electricity and Magnetism II (3) II

Alternate years. PHYS 418 continued with applications to guided waves and physical optics. Relativity. Prerequisite: PHYS 418.

PHYS 428. Microcomputer Interfacing (3) I.

Medium and large scale integrated circuits such as peripheral interface adapters. UARTS, A/D converters are used to interface a microcomputer to the external world of the laboratory. One class period and two three-hour laboratories. Prerequisites: CS 307; and PHYS 212 or 201.

PHYS 429. Selected Topics In Microelectronics (1-3)

On demand. An individual, in-depth study of a microelectronic project. Designed to integrate the introductory knowledge gained in PHYS 303 and PHYS 428 into a complete microelectronic system. Arranged. Prerequisites: PHYS 428 and PHYS 303.

PHYS 433. Philosophy and Physics of Space and Time (3) II.

Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes, Green's concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Cross-listed in PHIL.

Political Science (POLS)**POLS 501. Modern Political Theory (3) I, II.**

Papers, readings, and discussion of selected topics in modern political theory. Prerequisite: consent of instructor. May be repeated under different instructors with approval of graduate adviser.

POLS 511. Public Law (3) I

Alternate years. Selected problems in constitutional law, legal theory, and judicial process and behavior, and criminal justice. Prerequisite: consent of instructor.

POLS 520. Public Administration and Public Policy (3) II. Social and political contexts of public administration; relationship of administration to broader political process that shapes public policy; review of current and traditional issues of concern to public administrators.

POLS 521. Administrative Theory and Behavior (3) I. Systematic analysis of various theories and research focusing on organization and behavior in public administration, including the discussion of organization, human motivation, leadership, rationality, efficiency, and conflict management in public organizations. Prerequisite: consent of instructor.

POLS 523. Public Policy Analysis/Program Evaluation (3) II. Substantive policy issues. Focus on models of public policy, agenda setting, policy formulation, implementation and evaluation, how public officials deal with policy questions.

POLS 526. Public Personnel Administration (3) II. Public personnel policies and practices, including legal foundations, classification and compensation plans, recruitment and selection processes, training, employment policies and morale, and public labor relations. Prerequisite: consent of instructor.

POLS 527. Urban Management (3) I. Urban problems confronting city administrators, program planning and policy development responsibilities of city administrators, management functions required to operate a modern municipality.

POLS 528. Government Budgeting and Fiscal Policy (3) I. Financial management concepts and practices in government, including the preparation and execution of the budget, fiscal policy formation, program budgeting and analysis, zero-based budgeting, and financial administration. Prerequisite: consent of instructor.

POLS 531. American Government (3) On demand. Readings and reports on political behavior, public opinion and mass media, state and local government, legislative process, executive and judicial process.

POLS 532. Seminar in State and Local Government (3) II. Research and analysis of selected topics in state and local politics, including the constitutional framework, state and local relations, political processes, and policy making.

POLS 535. Problems/Issues in Public Administration/Policy (3) I, II, summer. Research seminar dealing with problems/issues in public administration/ policy.

POLS 537. Public Sector Labor Relations (3) II, summer. Analysis of the development and effectuation of public labor policy with an emphasis on the study of the growth of public sector labor unions, process and problems of collective bargaining, public employer-employee rights and obligations, strike policies, grievance procedures, and impasse resolution. Prerequisite: consent of instructor.

POLS 551. Seminar in Comparative Government (3) II. Directed research in selected areas of comparative government. Commentary and discussion over general area or areas selected for research.

POLS 570. Readings in Political Science (1-3) I, II. Individual study of selected topics in political science appropriate to student's course of study. Prerequisite: consent of instructor.

POLS 571. Seminar in International Relations (3) II. Papers, readings, and discussion of selected topics in international relations and foreign policy formation.

POLS 580. Graduate Seminar (1-3) I, II. Systematic study of selected topics within political science. Content of seminar varies from semester to semester. May be repeated on approval of adviser.

POLS 581. Seminar in American Studies (3) I, II. Interdisciplinary seminar coordinated by members of the departments of history, English, philosophy, political science, sociology, and School of Art, using lectures and subsequent discussion and papers to study problem, theme, or era.

POLS 589. Internship (1-6) I, II, summer. Supervised experience in public service jobs, political internship programs, and political campaigns. Proposed field placement registration must be approved by instructor/supervisor prior to registration. Graded S/U.

POLS 595. Workshop in Public Administration (3) I, II, summer. With varying contents/themes, the workshop will involve the study and readings of materials related to the needs of public administration students and practitioners. Prerequisite: consent of workshop director.

POLS 596. Research Methods in Public Administration (3) I. Methods of analysis and application to public sector problems; statistical methods, experimental and quasi-experimental designs, and modeling and simulation. Prerequisite: consent of instructor.

POLS 597. Seminar in Political Research (3) II. Study, research, and discussion of scholarship by political scientists. Prerequisite: consent of instructor.

POLS 599. Thesis Research (1-9) I, II. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours credited toward degree. Minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

POLS 402. Western Political Thought I (3) I. Classics of political philosophy of ancient and medieval period. Major ideas and concepts of western political tradition from Plato through Middle Ages to Machiavelli.

POLS 403. Western Political Thought II (3) II. Classics of political philosophy of modern period. Major ideas and concepts of Western political tradition from Hobbes to Marx.

POLS 404. 20th Century Political Thought (3) I, II. Contemporary classics of political philosophy. Theories of justice and right of Rawls, Nozick, Hayek, and Strauss; Berlin's pluralism; existentialism; and/or democratic theory.

POLS 405. Recent American Political Thought (3) II. American political ideas, ideologies, movements with fundamental social and political philosophies from Civil War to contemporary period. Prerequisite: POLS 304 or consent of instructor.

POLS 416. Constitutional Law: Powers and Relationships (3) I. Supreme Court cases relating to U.S. governmental structure, powers, and relationships.

POLS 417. Constitutional Law: Procedural Rights (3) I. Due process, right to counsel, search and seizure, electronic surveillance, jury trial.

POLS 418. Constitutional Law: Substantive Rights (3) II. Freedom of speech, press, and religion; equal protection of law. travel and privacy; right to vote.

POLS 419. Jurisprudence (3) II. Leading theories and theorists of law; Anglo-American thought and practice.

POLS 420. Administrative Law (3) I. Legal aspects of the administrative process and the effect of legal principles and processes upon administrative decision making. Emphasis on the limitation of administrative discretion and the judicial review of administrative decisions. Prerequisite: consent of instructor.

POLS 421. Bureaucratic Politics (3) II. The role federal bureaucracy plays in public policy process. Policy development; social and political factors that influence the administrative branch of government.

POLS 422. Survey of Public Administration (3) I. Fundamental literature, concepts and practices in public administration, including the discussion of administrative leadership, decision making, communication, fiscal and personnel management aspects of public administration. Prerequisite: consent of instructor.

POLS 423. Comparative Public Administration (3) II. Comparative study of administrative structures and processes in selected modern and modernizing political systems; considers cultural, legal and political factors influencing the operation of bureaucratic institutions, developmental goals, and methods of establishing and administering programs of social, economic and political development.

POLS 430. Politics of Metropolitan Areas (3) Summer. Socio-economic and political factors affecting the governance of metropolitan areas with an emphasis on politico-administrative institutions, processes, and the major policy issues and their consequences for the management of metropolitan affairs.

POLS 440. Political Parties and Voter Behavior (3) II. Democracy and political parties, party organization, primaries and conventions for nomination, campaigns and elections, patterns of election participation and factors affecting the voter's decision making.

POLS 443. Mass Media in Politics (3) I. Techniques of modern election campaigns, management: use of research and voter profiles in developing strategy, tactics of mass persuasion: professional public relations in television and the electronic media.

POLS 454. Soviet Political System and Institutional Development (3) Summer. Historical, cultural and ideological forces that have shaped and will continue to shape the development of Soviet political institutions: traditional charismatic, and rational-legal authority structures; Marxism as a westernizing/modernizing factor; the Russification of Marxism; Russia under the old regime; rise of a bureaucratic "class"; socialist legality and paternalism.

POLS 458. Soviet Foreign Policy (3) II. Soviet foreign policy in post-war era; domestic and international determinants and consequences for Soviet-Western relations, socialist bloc, and third world.

POLS 459. Intergovernmental Relations (3)
On demand. Public policy issues and interaction with levels of government in American federal system. Dynamics of intergovernmental relations, grant-in-aid, revenue sharing, and federal relationships.

POLS 473. International Law (3) On demand. History, nature, sources, and applications; relationship between law and society at international level.

POLS 475. International Organization (3)
On demand. Major problems facing United Nations and other international organizations.

Popular Culture (POPC)

POPC 570. Special Studies in Popular Culture (1-3) On demand. Individual reading or group study on topic in popular culture studies not ordinarily offered in curriculum. Prerequisite: consent of graduate adviser of program or representative.

POPC 580. Seminar in Popular Culture (3) I, II, summer. Interdisciplinary seminar utilizing lectures, discussions, readings and research assignments to study a theme, era, or problem in popular culture studies. May be repeated if topic is different. Some past topics were "Myth of the West," "Popular Entertainments," "American Popular Fiction," "Religion in America," and "Comics and Culture."

POPC 589. Internship (1-8) I, II, summer. On demand. Supervised experience in setting related to one's area of specialization. Proposed field placement registration must be approved by the graduate adviser and site supervisor prior to registration. May be repeated to eight hours. Graded S/U.

POPC 590. Teaching Popular Culture (3) I. It is assumed that students enrolled in master's degree program in popular culture who intend to teach when they complete the program will take this course. Practicum of teaching methods in popular culture curriculum.

POPC 595. Workshop on Current Topics in Popular Culture (1-4) On demand. Workshops designed for current topics, issues and problems in popular culture studies; focus will vary from semester to semester. May be repeated upon approval of the graduate adviser.

POPC 597. Popular Culture Theory and Methodology (5) I. Required of all students in program. Content, trends, genres, tastes, technical developments, and perspectives of popular culture studies. Includes study and application of theories relating to analysis of popular culture; methodologies and research techniques.

POPC 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

Psychology (PSYC)

PSYC 501. History of Psychology I (3) I. Philosophical and physiological antecedents of scientific psychology. Role of experiment, theory, data in 19th and early 20th century psychology. Emphasis on reading and interpreting primary sources.

PSYC 502. History of Psychology II (3) II. Emergence of modern applications of scientific psychology in industrial, clinical, developmental, and educational contexts. Emphasis on reading and interpreting primary sources.

PSYC 504. Child Development (3) II. Major concepts and principles of child development. Discussion focuses on how cognitive, personality, and social-psychological issues interact to produce development.

PSYC 505. Personality Theory (3) I, II. Nature of personality; biological and psychological determinants. Major constructs; primary determinants of personality development.

PSYC 508. Behavior Pathology and Interviewing (3) II. Evaluation of various theories of psychopathology, as well as a discussion of several pathological syndromes and illustrative interviews.

PSYC 510. Fundamentals and Applications of Learning (3) I, II. A broad survey of learning which combines the historical perspective on the development of major learning theories, exposure to major principles of learning, and information about how learning principles and theories are applied in the real world.

PSYC 512. Cognitive Psychology (3) I, II. Current theoretical and empirical approaches to the study of knowledge and thought including topics such as attention, memory, categorization, reasoning, problem solving, imagery, and language.

PSYC 514. Psychobiology (3) I, II. Contemporary research dealing with neural control of behavior.

PSYC 516. Human Judgment (3) I, II. Overview of approaches to individual decision processes, including decision theory, social judgment theory, heuristics and biases. Applications to clinical and organizational decision making, medical diagnosis, and other decision problems. Prerequisite: a course in statistics or consent of instructor.

PSYC 517. Sensation and Perception (3) II. Sensory processes and perception. Vision and audition emphasized. Special topics include contemporary psychophysics; neurophysiological bases of form, depth, and movement perception; modulation transfer function; auditory coding; attention; perceptual development.

PSYC 524. Methodology in Psychology I (2) I. Analysis of the nature of scientific activity; theory constructions, hypothesis testing, prediction and explanation, the sociology and psychology of science.

PSYC 525. Methodology in Psychology II (2) I. Issues and assumptions related to data evaluation and statistical analysis. Commonly used experimental designs discussed.

PSYC 526. Methodology in Psychology III (2) II. Research leading to measurement and prediction of behavioral attitudes. Different models for prediction.

PSYC 534. Theories of Development I (3) I. Major theories of cognitive development across the lifespan; integration of theory with relevant research is emphasized.

PSYC 535. Theories of Development II (3) II. Major theories of social and personality development across the lifespan; integration of theory with relevant research is emphasized.

PSYC 550. Contemporary Problems in Research in Industrial/Organizational Psychology (3) I. Introduction to the literature and to the major areas of research in industrial and organizational psychology.

PSYC 554. Interviewing (3) I, II. Interview theory, methods, and uses of personnel interview; applications to prediction and evaluation.

PSYC 556. Organizational Staffing (3) II. Principles of personnel selection and associated topics, such as recruitment, prediction, training, job analysis, promotion and performance appraisal. Effects of EEO requirements on validation of personnel actions. Prerequisites: 567 and 526.

PSYC 557. Work Outcomes (3) I. Expected consequences of work behavior. Methodological and conceptual issues associated with organizational and work effectiveness. Special emphasis is given to organizational diagnosis and change.

PSYC 558. Motivation and Morale (3) II. Research and theory on attitudes, motivation, and intentional behavior related to satisfaction, motivation, effort, and goal setting at work.

PSYC 559. The Social Environment of Work (3) I. Effects of organizational structure and climate on work performance and attitudes. Introduction to literature on leadership, motivation, group dynamics and managerial decision making. Focus on field studies and research methods appropriate to organizational settings.

PSYC 561. Psychometrics I (3) I. Introduction to assessment of intellectual processes; administration, scoring and educational interpretation of children's intelligence tests; concepts of reliability, validity, and utility; adult testing; use and abuse of intellectual assessment. For school psychology: see description of PSYC 562 and PSYC 563. Prerequisite: PSYC 460 or equivalent and consent of instructor.

PSYC 562. Psychometrics II (2) II. School psychological services and consultation process. Client needs assessment including experience with needs assessment, task analysis, criterion and domain-referenced assessment, informal assessment. Learning disorders of children: evaluation and intervention. Individual intellectual assessment of children. Child study process. Prerequisites: PSYC 561 for school psychology and consent of instructor.

PSYC 563. Psychometrics III (3) summer. Continuation of PSYC 562. Prerequisites: PSYC 561 for school psychology, PSYC 562, and consent of instructor.

PSYC 567. Basic Statistical Theory I (3) I. General overview of basic statistical concepts followed by a special emphasis upon the multiple regression model. Topics include dummy, effect, and orthogonal coding of categorical variables, experimental and nonexperimental designs, linear and curvilinear trends, continuous and categorical independent variables, repeated measures designs, path analysis.

PSYC 568. Basic Statistical Theory II (3) II. Experimental design, data analysis, hypothesis testing and parameter estimation for simply through complex research plans.

PSYC 580. Graduate Seminar (1-5) I, II, summer. Selected topics in all areas of psychology. Prerequisite: consent of instructor.

PSYC 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

PSYC 608. Behavior Pathology in Children: (3) I, II. Etiological and dynamic factors in creation and maintenance of maladaptive behavior in child. Prerequisites: PSYC 505 and PSYC 508.

PSYC 609. Clinical Practice (1-6) I, II, summer. Practical application of psycho-diagnosis and psychotherapeutic techniques with children and adults. Assignment to a variety of facilities including the department's Psychological Services Center. May be repeated. Prerequisite: consent of instructor. Graded S/U.

PSYC 631. Theories and Techniques of Therapy I (3) I. First part of the psychotherapy sequence; includes ethics, initial interviews, extensive examination of issues and results of research of psychotherapy and behavior change. Prerequisite: PSYC 508 or consent of instructor.

PSYC 632. Theories and Techniques of Therapy II (2-4) II. Continuation of PSYC 631 with increased practicum experience with varied techniques; introduction to milieu and group techniques. Prerequisite: PSYC 631. Graded S/U.

PSYC 642. Theories of Social Psychology I (3) I. Major theoretical approaches: S-R, cognitive, mathematical, biological theories. Prerequisites: PSYC 525 and PSYC 568.

PSYC 643. Theories of Social Psychology II (3) II. Contemporary minitheories; includes theories of attraction, attribution, social facilitation, and aggression. Prerequisites: PSYC 525 and PSYC 568. May be taken prior to PSYC 642.

PSYC 664. Psychological Assessment I (2) I. Administration, scoring, interpretation of intelligence tests for children and adults. Prerequisite: consent of instructor.

PSYC 665. Psychological Assessment II (3) I. Assessment of brain-damage; experience with standard neuropsychological devices. Use of structured personality tests. Prerequisite: PSYC 664.

PSYC 666. Psychological Assessment III (2) II. Clinical judgment. Reliability, validity, and utility of assessment devices. Prerequisite: PSYC 665.

PSYC 668. Scaling (3) I, II. Theory and methods of unidimensional and multi-dimensional scaling. Topics include measurement problems, procedures for developing scales, and interpretation of scales.

PSYC 669. Advanced Quantitative Methods (3) I, II. Possible topics include: stochastic models of learning and perception, decision processes, linear and non-linear factor analysis, latent trait theories, modern mental tests, multi-variate analysis of variance, fundamentals of measurement. May be repeated. Prerequisite: PSYC 567, 568, or consent of instructor.

PSYC 670. Independent Study (1-12) I, II, summer. Reading or empirical research on topic or problem approved by supervising instructor. May be repeated. Graded S/U.

PSYC 682. General Seminar (1-5) I, II, summer. Current literature, theoretical issues, advanced techniques in all areas of psychology. May be repeated. Graded S/U.

PSYC 685. Research Problems (1-5) I, II, summer. Supervised research seminar in general research area. May be repeated. Graded S/U.

PSYC 799. Dissertation Research (1-16) I, II, summer. Student must register for minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Courses for graduates and undergraduates

PSYC 460. Introduction to Psychological Testing (3) I, II. Theory and methods of measuring human behavior. Basic measurement principles and applications; representative standardized tests of intelligence, interest, aptitude and personality. Prerequisites: PSYC 201 and PSYC 270 or equivalent.

Rehabilitation Counseling (REHB)

REHB 556. Principles of Rehabilitation Counseling (3). History, philosophy, principles, objectives, development of vocational rehabilitation counseling as social structure and profession.

REHB 557. Counseling in Rehabilitation Process (3). Methods and techniques in assessment and evaluation of vocational handicap, laboratory counseling experience; effective interviewing and recording procedures.

REHB 558. Psychological Aspects of Disability (3). Psychological effects of marked developmental deviations. Application of basic principles of psychological adjustment, behaviors and environments of disabled persons.

REHB 559. Job Analysis and Work Evaluation in Rehabilitation (3). Occupation evaluation for rehabilitation counselors; job analysis in terms of work demands on client; client-capacity assessment.

REHB 560. Work Adjustment and Job Placement (3). Work adjustment counseling and job placement techniques. Special needs of a variety of rehabilitation populations. Prerequisite: REHB 559 or consent of instructor.

REHB 561. Family Intervention in Rehabilitation (3). Family counseling as mode of intervention in rehabilitation process.

REHB 565. Medical Aspects of Rehabilitation Counseling (3). Influence of medical practice structures on patient-physician-counselor relationship, role status in consultation environment, incorporating medical data, interpreting medical reports. Prerequisite: consent of instructor.

REHB 567. Community Approaches to Counseling (3). Research and practice of community counseling; consultation, prevention, training of paraprofessional, action research. Prerequisite: consent of instructor.

REHB 570. Readings in Rehabilitation (1-4). Independent study, supervised study or selected problems, and tailored readings on one-to-one basis; proposed program of study must be approved by instructor prior to registration. Graded S/U.

REHB 580. Graduate Seminar (1-3). Selected topics within the discipline. Content varies from one year (or semester) to next. May be repeated upon approval of graduate adviser.

REHB 584. Field Experience (3). Three-day per week experience in rehabilitation agency under direction of qualified supervisors. Graded S/U.

REHB 585. Pre-Practicum in Rehabilitation Counseling (3). Laboratory setting focusing on fundamentals of effective interpersonal relationships and part that self-understanding plays in establishing and maintaining such relationships. Graded S/U.

REHB 586. Practicum in Rehabilitation Counseling (3). Direct observation of student practice in counseling with tutorial supervisory sessions. Establishing and maintaining counseling relationship, processing client information developing appropriate intervention strategies. Prerequisite: REHB 585 or previous agency experience. Graded S/U.

REHB 587. Internship, Field Placement, or Practicum (1-4). Supervised experience within setting related to one's academic specialization. Proposed field placement registration must be approved by instructor/supervisor prior to registration. Graded S/U

REHB 589. Clinical Internship (12). Five-day per week practice and probationary period of continuous participation in active rehabilitation program under direction of qualified supervisors. Prerequisite: REHB 486. Graded S/U.

REHB 590. Teaching Rehabilitation Counseling at Postsecondary Level (1-3). Pedagogic aspects of rehabilitation counseling discipline within higher education. Techniques, strategies for use of rehabilitation counseling concepts and procedures in two-year, four-year, and/or graduate institution.

REHB 595. Workshop on Current Topics in Rehabilitation Counseling (1-3). Study, readings, and development of materials-related to needs of rehabilitation counseling practitioner. Topics vary from quarter to quarter. May be repeated upon approval of adviser if graduate program department credit desired or at discretion of student for recertification or for personal growth.

REHB 598. Directed Research (1-4). Supervised independent research on delimited topic. Involves generation of new knowledge as contrasted with private reading course. May run for longer than single quarter. Proposal for directed research must be approved by instructor/supervisor prior to registration. Graded S/U.

REHB 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of nine hours acceptable for master's degree, but no more than nine hours creditable toward degree. Minimum acceptable total for degree is four hours.

REHB 680. Advanced Seminar in Rehabilitation Counseling (1-3). Advance topics within the discipline. May be repeated upon approval of adviser. Prerequisite: permission of instructor.

Romance Languages (ROML)

ROML 511. History of Romance Languages (3). Development of Romance languages from Vulgar Latin to present.

ROML 586. Topics in Latin Civilization (3). Study of French and Spanish speaking civilizations. Topic varies according to instructor.

ROML 590. Teaching College French/Spanish (1-3). Current theories and practices, classroom experience, observation. Minimum of one credit required each quarter for departmental teaching assistants. Open only to teaching assistants. Does not count toward degree. Graded S/U.

ROML 595. Workshop on Current Topics in Romance Languages (1-3). On demand. Topics and issues vary.

French (FREN)

FREN 500. French for Graduate Students (4) On demand. For graduate student in another field who desires to develop reading knowledge of French. Does not count toward degree. Graded S/U.

FREN 511. History of French Language (3). Reading and analysis of selected texts for tracing development of French language from ninth century to present. Pre-classical texts.

FREN 512. Introduction to Old French (3). Presentation of morphology and syntax of Old French with selected readings from different centuries. Prerequisite: FREN 511 or permission of instructor.

FREN 555. Problems in French Linguistics (3). Comparison of contemporary French and English phonology, morphology, and syntax, through application of basic concepts of structural linguistics.

FREN 559. Self-Expression, Translation, and Style (3). Development of language patterns for oral expression and written style. Exercises in English-to-French and French-to-English translation. Analysis of literary French.

FREN 561. French Medieval Literature (3). Important works of medieval period, representative of various genres. Prerequisite: FREN 512.

FREN 563. French Literature of the Renaissance (3). Readings in five or six major authors of the period. Lectures on pertinent literary history and intellectual backgrounds. Discussions. Slides.

FREN 564. Seminar in Seventeenth Century French Literature (4). Analysis through readings, discussions and lectures of prominent baroque and classical authors. All genres. Slides.

FREN 566. Seminar in the Writers of Touraine (3). Reading and analysis of the works of writers typically associated with Touraine. The bearing of the Loire Valley region on their writings.

FREN 570. Graduate Readings in French (1-3). Supervised individual readings to meet student's special needs. Prerequisite: advanced approval by departmental graduate committee.

FREN 573. Eighteenth Century Novel (3). Selected novels of LeSage, Prevost, Diderot, Rousseau, Laclous.

FREN 579. Seminar in Nineteenth Century French Literature (3). Selected authors representing Romanticism, Realism, and Naturalism.

FREN 580. Modern French Poetry (3). From Romanticism through Parnassian, Symbolist, Impressionist, Surrealist and more contemporary movements, such as rise of concrete poetry.

FREN 581. Contemporary French Novel (3). Development of novel in France from early 1930's to present, current theories of novel as genre.

FREN 582. Contemporary French Theatre (3). French theatre of 1950s, predecessors and major successor, dramatic theories.

FREN 583. French Women Writers (3). Great women authors from Middle Ages to present.

FREN 584. Contemporary Black Poets (3). Contemporary black Francophone poets of Antilles, French Guiana, Africa, and Madagascar.

FREN 586. Contemporary French Civilization (3). Modern France and its institutions: history, politics, education, the arts.

FREN 589. French Literature (3). Particular author, authors, or genre such as poetry, drama, essay, prose fiction, or literary criticism.

FREN 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree; minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

FREN 451. Advanced Composition and Conversation (3). Development of fluency and accuracy in written and oral skills at an advanced level. Prerequisite: FREN 351 or FREN 352.

FREN 453. Advanced French Diction (2). Continued study of pronunciation, stress and intonation. Prerequisite: FREN 353.

FREN 458. Career French I (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation. Prerequisite: FREN 351 or FREN 352.

FREN 459. Career French II (3). An advanced study of the economic and administrative structures in France and in Francophone areas, with intensive concentration on related technical language. Prerequisite: FREN 458.

FREN 464. Seventeenth Century French Literature (4). Baroque and classical French literature. Prerequisite: FREN 361.

FREN 470. Independent Readings in French (1-3). Readings for the advanced student who wishes to study a particular author or period, or problem in language or civilization. Prerequisite: consent of department chair and instructor.

FREN 474. Eighteenth Century French Literature (4). Literature of the Enlightenment. Prerequisite: FREN 361.

FREN 484. Nineteenth Century French Literature (4). Literature of France of the nineteenth century, including Romanticism, Realism and Naturalism. Prerequisite: FREN 361.

FREN 488. French Literature: Advanced Studies (3). Intensive study of an author, literary school, genre, or a selected theme. May be repeated if topics are clearly different. Prerequisite: FREN 361.

FREN 494. Twentieth Century French Literature (4). Contemporary French and Francophone novel, theatre and poetry. Prerequisite: FREN 361.

Latin (LAT)

LAT 500. Latin for Graduate Student (4). On demand. For graduate student in another field who desires to develop reading knowledge of Latin. Does not count toward degree. Graded S/U.

Spanish (SPAN)

SPAN 500. Spanish for Graduate Students (4). On demand. For graduate student in another field who desires to develop reading knowledge of Spanish. Does not count toward degree. Graded S/U.

SPAN 512. Topics in Spanish Language and Linguistics (3). One or more topics in Spanish language or linguistics, including dialectology, field studies, kinesics, philology, semantics, semiotics, transformational grammar.

SPAN 547. Seminar in Spanish American Short Story (3). In-depth study of one or several authors of contemporary period.

SPAN 556. Spanish Stylistics and Literary Theory (3). Forms of creative language and manifestations in literature.

SPAN 562. Spanish Medieval Epic and Romancero (3). Origins and development of Spanish epic and resurgence in balladry of 15th and 16th centuries, emphasis on the *Cid*.

SPAN 568. Cervantes (3). Principal works; emphasis on *Don Quixote*.

SPAN 569. Picaresque Literature (3). Origins and development of Spanish picaresque literature, set against historical and social background of Spanish empire.

SPAN 570. Graduate Readings in Spanish (1-3). Supervised individual readings to meet student's special needs. Prerequisite: advanced approval by departmental graduate committee.

SPAN 571. Seminar in Golden Age Drama and Poetry (3). Thematic development of Spanish national theatre and poetry from Lope de Vega to Calderón.

SPAN 573. Seminar in Nineteenth Century Literature (3). Works of principal 19th century writers, including Espronceda, Bécquer, Perez Galdós, Leopoldo Alas.

SPAN 575. Seminar in Generation 1898 (3). Literary production of one or several major writers of movement, set against political and cultural background of period.

SPAN 577. Seminar in Contemporary Spanish Poetry (3). Literary production of one or several major poets of generation of 1927.

SPAN 581. Seminar in Spanish American Theatre (3). Antecedents and important works of 20th Century.

SPAN 582. Modernism in Spanish America (3). Sources and characteristics of "modernista" movement, principally in poetry, through consideration of works of Ruben Dario, Gutiérrez Nájera, Herrera y Reissig, other leading authors.

SPAN 583. Seminar in Spanish American Novel (3). Outstanding 20th century novels as reflections of society.

SPAN 588. Contemporary Spanish Civilization (3). Political, educational, artistic developments that shaped present-day Spain.

SPAN 587. Contemporary Spanish American Civilization (3). Socio-political, educational, artistic developments that shaped nations of Spanish America.

SPAN 588. Topics in Hispanic Literature and Culture (3). Intensive study of particular author, theme, or genre, such as drama, essay, poetry, or prose fiction.

SPAN 599. Thesis Research (1-9). Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

Courses for graduates and undergraduates

SPAN 431. Spanish American Fiction (3).

Major authors and works from literary movements of the 19th and 20th centuries, with emphasis on either regionalism or the contemporary novel. Prerequisite: SPAN 368.

SPAN 441. Medieval and Golden Age Literature (3).

Representative masterpieces of Spanish literature from the Middle Ages and the *Siglo de Oro*: epic, poetry, novel, and theater. Prerequisite: SPAN 367.

SPAN 442. Spanish Literature of the Nineteenth Century (3).

Outstanding works of the 19th century; romanticism, realism, naturalism, prose and poetry. Prerequisite: SPAN 367.

SPAN 444. Spanish Literature of the Twentieth Century (3).

Outstanding works from the generation of 1898 to the present; poetry and prose. Prerequisite: SPAN 367.

SPAN 450. Advanced Grammar and Composition (3).

Grammar and composition, especially appropriate for future teachers of Spanish. Prerequisites: SPAN 351 and SPAN 352.

SPAN 455. Applied Linguistics (3).

Phonological, morphemic, syntactical, semantic aspects of Spanish; application to language learning and teaching. Prerequisite: SPAN 351 and SPAN 352 or consent of instructor.

SPAN 463. Career Spanish (3).

Development of translation skills (Spanish to English and English to Spanish) on materials representing a wide range of technical, professional, and business careers. Prerequisites: SPAN 351 and SPAN 352.

Sociology (SOC)

SOC 501. Classical Sociological Theory (3).

Selected classical theorists ranging from Saint-Simon through Weber. Prerequisite: SOC 302 or consent of instructor.

SOC 502. Modern Sociological Theory (3).

Major theories beginning with Parsons. Prerequisite: SOC 501 or equivalent.

SOC 516. Social Stratification (3).

Classes, class conflict, social mobility. Prerequisite: consent of instructor.

SOC 517. Human Ecology (2).

Theory and application, emphasis on research. Selected topics in areal structure and spatial distribution. Prerequisite: consent of instructor.

SOC 518. Human Fertility and Family Planning (3).

Correlates of fertility in industrial and preindustrial societies. Prerequisite: consent of instructor.

SOC 521. Survey in Social Organization (3).

Alternate years. Major approaches; methodological problems. Prerequisite: consent of instructor.

SOC 523. Organizations (3).

Alternate years. Development, structure, and operation of complex organizations. Theories of complex organizations, problems of coordination and communication, formal and informal processes in complex organizations, relationships of complex organizations to their publics.

SOC 525. Demography (3).

Human population; major variables (population size, composition and distribution); processes of change (birth, death, migration); social, economic, and political determinants and consequences.

SOC 526. Migration (3).

Alternate years. International and internal migration; measurement, patterns, societal and individual consequences. Prerequisite: consent of instructor.

SOC 528. Race and Ethnic Relations (3).

Alternate years. Social structural, social psychological, and cultural variables associated with patterns of interaction between racial and ethnic aggregates. Prerequisite: consent of instructor.

SOC 530. Social Change (3).

Alternate years. Historical and contemporary theories and methods employed in study of social change. Prerequisite: SOC 501 or equivalent.

SOC 532. Social Movements (3).

Alternate years. Organizational, programmatic, action characteristics of contemporary social movements. Prerequisite: consent of instructor.

SOC 535. Proseminar in Social Psychology (3).

Alternate years. Contemporary systematic positions; review of research methods; theories and problems of current importance. Prerequisite: consent of instructor.

SOC 537. Political Sociology (3).

Social sources and consequences of political strategies in both promoting and resolving conflicts in social organization. Prerequisite: consent of instructor.

SOC 540. Sociology of Education (3).

Social structure and culture of schools; interrelationships between educational institutions and society. Prerequisite: consent of instructor.

SOC 542. Advanced Social Psychology (3).

Societal influences on individual behavior with attempt to bring together contributions from other related behavior sciences. Prerequisite: consent of instructor.

SOC 543. Small Groups (2).

Alternate years. Experimental design, data analysis, development of theories. Prerequisites: SOC 502 and SOC 542, or graduate standing in psychology. Others by consent of instructor.

SOC 544. Deviant Behavior (3).

Theories of deviant behavior and implications for treatment of deviant. Deviant behavior in relation to social control and social change. Prerequisite: consent of instructor.

SOC 550. Socialization (2).

Socialization and the life cycle; emphasis on origins of self-identity, and consequences of self-conceptions for educational achievement, occupational attainment, and deviant behavior. Prerequisite: consent of instructor.

SOC 561. Corrections (3).

Socio-psychological factors in rehabilitation of law violators and in field of corrections. Prerequisite: consent of instructor.

SOC 562. Criminal Law (3).

History and philosophy of law, order, crime, theory of punishment. Prerequisite: consent of instructor.

SOC 568. Intermediate Statistics (3).

Application of analysis of variance, analysis of covariance, multiple and partial correlation, special correlational methods, non-parametric techniques. Prerequisite: SOC 369 or equivalent.

SOC 569. Methodology (3).

Philosophical and empirical bases of sociology: theory-building, principles of verification, relationship between theory and research.

SOC 570. Readings in Sociology (1-3).

Selected problems in sociology; proposed program of study must be approved by instructor. Graded S/U.

SOC 580. Graduate Seminar (1-3).

On demand. Systematic study of selected topics in several areas of sociology. Prerequisite: consent of instructor.

SOC 581. Seminar in American Studies (3).

Interdisciplinary seminar coordinated in rotation by members of departments of history, English, philosophy, political science, sociology and School of Art, using lectures, discussion, and papers to study problem, theme, or era.

SOC 582. Family Theory and Research (3).

Analysis of recent sociological literature on the family from the perspective of basic theoretical and methodological issues. Particular emphasis on basic concepts, measurement, and theory construction. Prerequisite: consent of instructor.

SOC 589. Internship (1-3).

Supervised professional experience within occupational setting related to student's area of academic specialization. Graded S/U.

SOC 590. Teaching introductory Sociology (1).

Current theories and practices, emphasizing sociological perspective. Required prior to or concurrent with teaching of SOC 101 for students without previous college teaching. Graded S/U.

SOC 597. Research Design (3).

Critical review of selected methodological works in sociology. Prerequisite: consent of instructor.

SOC 599. Thesis Research (1-9).

Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but no more than six hours creditable toward degree. Graded S/U.

SOC 606. Advanced Studies in Methodology (3).

Alternate years. Critical examination and evaluation; includes such topics as qualitative analysis, ethnomethodology, typological analysis, use of models and quasi models. Prerequisites: SOC 568 and SOC 569 (Methodology).

SOC 607. Theory Construction in Sociology (3).

Alternate years. Interrelations between theory building and empirical findings. Prerequisites: SOC 502 and SOC 569 (Methodology).

SOC 612. Community (3).

Alternate years. Community theory, organization, power, and conflict. Prerequisite: consent of instructor.

SOC 623. Social and Demographic Aspects of Growth and Development (3).

Alternate years. Theoretical and empirical literature which treats population trends as determinants of economic growth and development. Prerequisites: SOC 412 and SOC 419 or consent of instructor.

SOC 624. Demographic Methods (3).

Procedures and techniques for collection, evaluation, and analysis of demographic data; census and vital registration systems; measures of population composition and of fertility, mortality, and migration; construction of life tables; population estimates and forecasts. May be repeated. Prerequisite: SOC 568.

SOC 625. Seminar in Demography and Ecology (3).

Selected topics in demography and human ecology. May be repeated. Prerequisite: consent of instructor.

SOC 631. Sociology of Violence (3).

Alternate years. Generative conditions, principle components, and social consequences of non-institutionalized violence. Prerequisite: consent of instructor.

SOC 632. Sociology of Conflict (3). Classical and contemporary perspectives on social conflict. Prerequisite: SOC 502.

SOC 640. Sociology of Higher Education (3) Alternate years. Relationships between higher education and society; student subcultures and dissent; new alignments of power and authority structures; bureaucratic, prestige, status relationships in colleges and universities. Prerequisite: SOC 504.

SOC 644. Theories of Juvenile Delinquency (3) Alternate years. Analysis of juvenile delinquency theories emphasizing social interaction approach to understanding adolescent subcultures, social controls, social class structure.

SOC 650. Advanced Studies in Sociological Theory (3) Alternate years. In-depth analysis of selected theoretical issues. Prerequisite: SOC 502.

SOC 651. Social Structure and Alienation (3) Alternate years. Conceptions, measures, and correlates of alienation in its multiple forms. Prerequisite: consent of instructor.

SOC 652. Collective Behavior (3) Alternate years. Analysis of forms, processes, and behavior in collectivities, crowds, publics, transitory groupings. Prerequisite: consent of instructor.

SOC 653. Social Psychology of Marital Dyad (2). Analysis of processes of heterosexual dyadic formation; construction of social reality in marriage; adjustments to stressful life events; emphasis on "the generation gap," "the empty nest," retirement, and death of spouse. Prerequisite: consent of instructor.

SOC 654. Women and Institutions (2). The position of women in different institutions of American society and other cultures examined theoretically and empirically; focus on the family, politics, economy, education, and religion portrays the social factors which promote harmony, conflict, strain, power struggle, and consensus between the sexes relative to each institution. Prerequisite: consent of instructor.

SOC 660. Theories of Criminology (3) Alternate years. Criminal behavior as analyzed by theorists of 18th, 19th, and 20th centuries.

SOC 668. Measurement and Sampling (3) Alternate years. Theory and methods; levels of measurement; unidimensional and multidimensional scaling techniques using digital computers. Prerequisite: SOC 572 or equivalent.

SOC 670. Readings in Sociology (1-3). Selected problems. Proposed program must be approved by instructor prior to registration. May be repeated. Graded S/U.

SOC 671. Advanced Statistics (3) Summer, alternate years. Quantitative treatment of social behavior. Prerequisite: SOC 572 or consent of instructor.

SOC 680. Graduate Seminar (1-3) On demand. Systematic study of selected topics in several areas of sociology. Prerequisite: consent of instructor.

SOC 690. Internship in College Teaching (2) On demand. Designed to prepare qualified students for teaching in specialized areas such as family, minority relations, juvenile delinquency, theory, methods, statistics. Prerequisite: SOC 590. Graded S/U.

SOC 799. Dissertation Research (1-16). Credit for dissertation study. Enrollment in excess of 30 hours is acceptable, if approved by graduate committee, but no more than 30 hours creditable toward degree. Graded S/U.

Courses for graduates and undergraduates

SOC 417. Sociology of Sport (3). Sociological concepts and theories to investigate sport as social institution and relationship to other social institutions; organizational theory and small group research applied to sport; social psychological aspects of sports. Prerequisite: consent of instructor.

SOC 460. Family and Sex Roles (2). Theoretical and empirical literature on family and sex roles; socialization, changing nature of women's and men's roles, prospects for future; institutional sources of women's and men's roles in other cultures.

Speech Communication Radio-Television-Film (RTVF)

RTVF 500. History of American Broadcasting (3) I. Technical and economic development of radio and television in the United States; programs and personalities of broadcast industry since its inception.

RTVF 501. Regulation of American Broadcasting (3) II. Roles of federal, state, and local government, broadcasting industry, and public in regulation of American radio and television.

RTVF 502. Educational Broadcasting (3) II Alternate years. Role of educational radio and television station in formal and informal education. Program planning from inception through production, scheduling, evaluation.

RTVF 503. History and Criticism of Film (3) II. Early development of technology and production of motion picture; film as art as viewed by filmmakers and critics.

RTVF 504. Producing and Directing for Television (3) II. Advanced theory and practice of television program production and directing; creative, experimental program forms. Laboratory hours.

RTVF 505. Producing and Directing for Film (3) I. Producing, writing, directing, editing 16mm films; experimentation with new and creative techniques. Laboratory hours.

RTVF 506. Writing for Television and Film (3) I On demand. Practical and theoretical applications of writing technique in television and film. Style and development in content realization.

RTVF 570. Readings in Radio-Television-Film. (1-3) I, II, summer. Readings or research on topics approved by supervising instructor. Prerequisite: consent of instructor. May be repeated with permission of adviser. Graded S/U.

RTVF 580. Graduate Seminar in Radio-Television-Film (1-3) I, II, summer. Systematic study of selected topics within radio, television, film. Prerequisite: consent of instructor. May be repeated with consent of adviser.

RTVF 589. Internship (1-6). Supervised experience within a setting related to specializations in radio-TV-film. Must be approved by the instructor/supervisor prior to registration. Graded S/U.

RTVF 594. Qualitative Methods (3) Alternate years. Methods of researching and presenting historical, legal and critical problems relating to the electronic and cinematic media. Can be repeated with consent of adviser and instructor.

RTVF 595. Workshop on Current Topics in Radio-Television-Film (1-3) On demand. Readings, experiences; topics vary from semester to semester. May be repeated on approval of director of graduate studies.

RTVF 597. Introduction to Mass Communication Research (3) I. Development of research literature in mass communication including major psychological and sociological streams; role of theory construction in social science. Includes introduction to mass communication research strategies and techniques.

RTVF 598. Research Problems In Radio-Television-Film (1-3) I, II, summer. Independent studies and research problems in radio-television-film for master's degree students. Registration must be approved by program chair. May be repeated with approval of adviser.

RTVF 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

RTVF 600. International and Comparative Systems of Broadcasting (3) Alternate years. Comparative analysis of systems of radio and television broadcasting in various countries and from country to country; programming, financing and regulation, technical standards, relationship of international to domestic broadcasting.

RTVF 602. Programming in Radio and Television (3) Alternate years. Programming techniques in broadcast scheduling and program planning. Commercial and educational network and local station format; image development in radio and television.

RTVF 603. Seminar in Mass Communication Theory (3) Alternate years. Examination of major research trends in mass-communication, focusing on the evolution of theories of audience behavior. Prerequisite: RTVF 597.

RTVF 604. Seminar in Descriptive Methods (3) Alternate years. Exploration of descriptive methods employed in broadcasting research, especially survey research.

RTVF 607. Seminar in Mass Communication Law (3) Alternate years. In-depth study of particular topics in communication law. Focus is on major contemporary issues and controversies in the regulation of electronic communication and in the development of public policy. Prerequisite: consent of instructor.

RTVF 608. Seminar in History of Mass Communication (3) Alternate years. Intensive examination of specific aspects of history of the electronic and/or film media. Prerequisite: permission of instructor.

RTVF 609. Critical Analysis of Broadcast Programs (3) II. Contemporary broadcast fare, merits and faults evaluated through current comment and critical analysis. Development of critical criteria.

RTVF 670. Readings in Radio-Television-Film (1-3) I, II, summer. Readings or research on topics approved by supervising instructor. Prerequisite: consent of instructor. May be repeated with permission of adviser. Graded S/U.

RTVF 680. Graduate Seminar in Radio-Television-Film (1-3) I, II, summer. Systematic study of selected topics within radio, television, film. Prerequisite: consent of instructor. May be repeated with consent of adviser.

RTVF 688. Internship (1-6) I, II, summer. Supervised experience within a setting related to specialization in radio-TV-film. Must be approved by the instructor/supervisor prior to registration. Graded S/U.

RTVF 693. Practicum in Radio-Television-Film Assistantship/Fellowship Activities (1) I, II, summer. Problems which arise in day-to-day assistant/fellow activities. Includes observation by regular faculty. Must be taken by graduate assistants/fellows each term they have an assignment. Graded S/U.

RTVF 698. Research Problems in Radio-Television-Film (1-3) I, II, summer. Independent studies and research problems in radio-television-film for doctoral degree students. Registration must be approved by program chair. May be repeated with permission of adviser.

RTVF 700. Seminar: Broadcast Station Management and Operations (3) Summer. Broadcast management functions, advertising, network and labor relations, internal organizational structure, operational procedures.

RTVF 703. Corporate and instructional Video (3) II. Systems and operations; design and maintenance of system; design and supervision of operations; scheduling; uses of videotape and film; utilization and evaluation.

RTVF 799. Dissertation Research (1-16) I, II, summer. Student must register for minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 36 hours in degree program.

Interpersonal and Public Communication (IPCO)

IPCO 597. Research Methods in Interpersonal and Public Communication (3) I. Research strategies and techniques and implications for interpersonal and public communication.

IPCO 598. Research Problems in Interpersonal and Public Communication (1-3) I, II. Independent studies and research problems in interpersonal and public communication for master's degree students. Registration must be approved by director of graduate studies. May be repeated with approval.

IPCO 599. Thesis Research (1-9) I, II, summer. Three to six hours of thesis research may be credited toward a master's, but student is required to register for as many additional hours as necessary to complete thesis.

IPCO 621. Rhetorical Theory: Medieval, Renaissance, and Neoclassical (3) On demand. Examination of major works and theorists in rhetoric from the decline of Roman rhetoric through the works of Campbell, Blair, and Whately.

IPCO 622. Communicative Competency (3) II. A social skills approach to the study of human communication.

IPCO 623. Human Communication (3) I. Contemporary perspectives on human communication.

IPCO 624. Interpersonal Communication (3) II. Emphasis on theory and research relating in dyadic communication.

IPCO 625. Theories in Group Communication (3) On demand. Social-psychological theories relevant to communication in the small group, interaction analysis, field theory, role theory, personality theory, reinforcement theory. Preparation and presentation of research proposal.

IPCO 628. Organizational Communication (3) II. Structural-functional approach to communication in organizations; problems of information load, content and procedural rules, and networks; techniques of auditing organizational communication behaviors.

IPCO 631. Contemporary Public Communication (3) On demand. Movements, issues, and speeches from 1945 to present.

IPCO 632. Audience Analysis (3) On demand. Theories and methodologies relevant to source-receiver relationships. Methods of measuring and assessing audience beliefs, attitudes, intentions, behaviors.

IPCO 689. Internship (1-10) I, II, summer. Supervised experience in setting relating to specializations in rhetoric and communication. Prerequisite: consent of director of graduate studies. Graded S/U.

IPCO 691. Practicum in Interpersonal and Public Communication Assistantship/Fellowship Activities (1) I, II, summer. Problems which arise in day-to-day assistant/fellow activities. Includes observation by regular faculty. Must be taken by graduate assistants/fellows each term they have an assignment. Graded S/U.

IPCO 698. Research Problems in Interpersonal and Public Communication (1-3) I, II, summer. Independent studies and research problems in interpersonal and public communication for doctoral-students. Registration must be approved by director of graduate studies. May be repeated with approval.

IPCO 725. Research in Group Communication (3) On demand. Research methods in small group communication with emphasis on observational techniques. Presentation of research report.

IPCO 726. Topics in Argumentation and Debate (3) On demand. Theory and practice of analyzing argumentation and debate, including legal argument, political argument, and legislative debates. May be repeated.

IPCO 727. Topics in Rhetoric (3) On demand. In depth studies of theories, theorists, or specialized topics in rhetoric. May be repeated.

IPCO 728. Research in Organizational Communication (3) On demand. Contemporary research findings in organizational communication with special emphasis on methodologies for studying and auditing networks, climate, information load, and rules.

IPCO 729. Topics in Communication (3) On demand. Depth studies in such areas as multivariate data analysis, theory construction, relational communication, and intimate communication. May be repeated.

IPCO 732. Persuasion in Movements (3) On demand. Theories, structures, methodologies or movement studies.

IPCO 733. Topics in Public Communication (3) On demand. Specialized areas such as American pulpit, lyceum and chautauqua, political communication, revolutionary rhetoric, oratory of various periods. May be repeated.

IPCO 735. Topics in Persuasion (3) On demand. Specialized areas of social influence such as attitude change, attitude-behavior research, communication and conflict, negotiation and bargaining. May be repeated.

IPCO 799. Dissertation Research (1-16) I, II, summer. Student must register for a minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Communication Disorders (CDIS)

CDIS 501. Speech Science (3) I, II. Acoustics, physiology of speech mechanism, acoustics of speech, and speech perception. Prerequisite: CDIS 301 or equivalent.

CDIS 502. Administration and Supervision of Therapy Program in Educational Settings (2) On demand. Public school programs at state and local level. Techniques of supervision for state, local, and university supervisors. Prerequisite: experience in public school speech and hearing therapy.

CDIS 503. Medical Aspects of Speech and Hearing (2) II. Relationship between medical fields and speech and hearing pathology. Weekly visits to physicians' offices, hospitals, and treatment centers.

CDIS 504. Practicum in Audiology (1-3) I, II, summer. Clinical experience in diagnostic and rehabilitative audiology. May be repeated. Prerequisite: consent of instructor.

CDIS 505. Practicum in Speech-Language Pathology (1-3) I, II, summer. Supervised clinical experience in Speech-Language Pathology. May be repeated. Prerequisite: consent of instructor.

CDIS 511. Advanced Studies in Articulation (2) I. Neuro-motor basis of articulation processes in adults and children. Etiologies, diagnoses and treatment of acquired dysarthria in adults and developmental neuro-motor, and apraxic conditions in children. Prerequisites: CDIS 311, 421, or equivalent.

CDIS 515. Diagnostic Audiology I (3) I. Advanced theory and administration of differential diagnostic hearing tests. Investigation of diseases which affect hearing and their audiological results. Prerequisites: CDIS 361, 461, or equivalent.

CDIS 521. Advanced Studies in Voice Disorders (3) II. Diagnosis and treatment of voice disorders in children and adults. Prerequisite: CDIS 321.

CDIS 525. Diagnostic Audiology II (3) II. CDIS 515 continued. Additional diagnostic hearing tests. Prerequisite: CDIS 515 or consent of instructor.

CDIS 531. Advanced Studies in Aphasia and Related Neuropathologies (3) II. Neurological bases of aphasia and neurogenic speech disorders; nature, etiology, diagnosis, and treatment of the aphasias and neurogenic speech disorders including apraxia; critical review of recent research. Prerequisite: CDIS 331 or consent of instructor.

CDIS 535. Diagnostic Audiology III (3) Summer. CDIS 525 continued. Additional diagnostic hearing tests. Prerequisite: CDIS 525 or consent of instructor.

CDIS 541. Advanced Studies in Stuttering (3) I. Analysis of research and clinical application related to etiology, onset, development, and maintenance of stuttering. Prerequisite: CDIS 341.

CDIS 545. Auditory Rehabilitation and Hearing Aids I (3) I. Rehabilitation of the hearing impaired. Amplification systems, speech reading, and auditory training. Prerequisite: CDIS 461 or consent of instructor.

CDIS 551. Advanced Studies in Oral Facial Anomalies (3) On demand. Etiology, diagnosis, habilitation of cleft palate, oral cancer, tongue thrusting, etc. Prerequisites: CDIS 301, 321.

CDIS 555. Auditory Rehabilitation and Hearing Aids II (3) II. CDIS 545 continued. Additional rehabilitation techniques. Prerequisite: CDIS 545 or consent of instructor.

CDIS 589. Internship (1-9) On demand. Supervised experience within a setting related to specializations in communication disorders. Must be approved by instructor/supervisor prior to registration. Graded S/U.

CDIS 595. Workshop on Current Topics in Communication Disorders (1-3) On demand. Readings, experiences; topics vary from semester to semester. May be repeated with approval of director of graduate studies.

CDIS 597. Research Methods in Communication Disorders (3) I. Research, research strategies and techniques, and implications of research in communication disorders.

CDIS 598. Research Problems in Communication Disorders (1-3) I, II, summer. Independent studies and research problems in communication disorders for master's degree students. Each registration must be approved by program chair. May be repeated with approval of adviser.

CDIS 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours is acceptable for plan I master's degree, but no more than six hours creditable toward degree. Minimum acceptable for degree is three hours.

CDIS 601. Topics in Communication Disorders (3) I, II, summer. Advanced seminar in speech-language pathology or audiology. May be repeated with permission of adviser.

CDIS 611. Advanced Studies in Language Development (3) I, II. The developmental stages and interaction of language form (syntax), content (semantics), and use (pragmatics). Prevention issues (language workshops) and methods of language sampling. Prerequisite: CDIS 351 or equivalent or consent of instructor.

CDIS 621. Advanced Studies in Language Disorders (3) Summer. Pediatric language disabilities; nature and scope of language identification and description of language deviance; formulation of remedial approaches. Prerequisite: CDIS 611 or equivalent.

CDIS 631. Advanced Studies in Aphasia (3) On demand. Neurological bases of adult aphasia and related disorders; nature and treatment of language processing and production disturbances in adult aphasia. Prerequisite: CDIS 531 or consent of instructor.

CDIS 641. Acoustic Phonetics (3) On demand. Acoustical characteristics of speech; laboratory techniques of acoustical analysis of speech. Prerequisite: CDIS 501 or consent of instructor.

CDIS 651. Physiological Phonetics (3) On demand. Physiology of speech production; laboratory techniques for research in physiology of speech. Prerequisite: CDIS 501 or consent of instructor.

CDIS 661. Advanced Research Instrumentation (3) On demand. Methods and theory in use of advanced instrumentation in empirical research. Prerequisite: consent of instructor.

CDIS 671. Neurophysiology of Auditory System (3) On demand. Anatomy and physiology of auditory mechanism. Prerequisite: consent of instructor.

CDIS 681. Seminar in Psychoacoustics (3) On demand. Study of selected research in psychoacoustics. Prerequisite: consent of instructor.

CDIS 689. Internship (1-5) On demand. Supervised experience within a setting related to specializations in communication disorders. Must be approved by the instructor/supervisor prior to registration. Graded S/U.

CDIS 691. Seminar in Physiological Acoustics (3) On demand. Critical study of selected research in physiological acoustics. Prerequisite: consent of instructor.

CDIS 692. Teaching Communications Disorders (1) I, II, summer. Problems which arise in day-to-day teaching assistant/fellow activities. Includes observations by regular faculty. Must be taken by graduate assistants/fellows each semester they have an assignment. Graded S/U.

CDIS 698. Research Problems in Communication Disorders (1-3) I, II, summer. Independent studies and research problems in communication disorders for doctoral degree students. Registration must be approved by program chair. May be repeated with approval of adviser.

CDIS 799. Dissertation Research (1-16) I, II, summer. Student must register for minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Theatre (THEA)

THEA 561. History of Theatre I (3) I. Historical development of physical theatre and production styles from primitive times through 1650; stage, auditorium, scenery, machinery, lighting, costumes, acting, directing, conventional practices.

THEA 562. History of Theatre II (3) II. THEA 561 continued. Theatre in Europe and America, 1650 to the present.

THEA 565. Theories of Drama (3) II. Major critical theories from Aristotle to present.

THEA 566. Scene Design (3) II. Theory and practice of scenic design for the stage; studio work provided. Prerequisite: THEA 243 or equivalent.

THEA 567. Seminar in Directing (3) I. Theory and practice of play direction with attention to particular needs of individual student.

THEA 568. Theatre Organization and Management (3) II. Principles and techniques of organizing and managing theatre production in educational, community, commercial settings.

THEA 569. Theatre Communication (3) I. Recent research of scientific nature, whether in theatre, psychology, communications, etc., relevant to theory and practice of theatre, focus on findings and not on methodology.

THEA 589. Practicum in Theatre (1-12). Supervised experience in theatre production, acting, management, technical theatre. Field placement must be approved by supervisor prior to registration.

THEA 591. Teaching Oral Interpretation (3) II. Pedagogical philosophies, problems, techniques associated with teaching oral interpretation.

THEA 595. Workshop on Current Topics in Theatre (1-3) On demand. Readings, experiences in theatre; topics vary from semester to semester. May be repeated with approval of director of graduate studies.

THEA 597. Research Methods in Theatre (3) I. Research, research strategies and techniques, and implications of research in theatre.

THEA 598. Research Problems in Theatre (1-2) I, II, summer. Independent studies and research problems in theatre for master's degree students. Registration must be approved by program chair. May be repeated with approval of adviser.

THEA 599. Thesis Research (1-9) I, II, summer. Credit for thesis study. Enrollment in excess of six hours acceptable for plan I master's degree, but not more than six hours creditable toward degree. Minimum acceptable total for degree is three hours.

THEA 660. Staging Problems in Contemporary and Period Styles (3) On demand. Theoretical and practical problems in staging class, Shakespearean and musical plays. Prerequisite: THEA 567 or equivalent. May be repeated with approval of adviser.

THEA 665. History of American Theatre (3) II. From beginnings to 1940; relationship to English theatre, censorship, acting, directing, theatre architecture, production methods, playwrights, unionization, commercialization.

THEA 671. Seminar in Costume Design (3) I. History and design of costumes and costume accessories; attention to period design. Prerequisite: consent of instructor.

THEA 672. Seminar in Lighting Design (3) Alternate years. Contemporary theories and practice in lighting design for the stage, television and film. Examination of the history of lighting design and major figures in its theoretical and technological development. Studio work provided. Prerequisite: THEA 343 or equivalent.

THEA 673. History and Principles of Dramatic and Theatrical Criticism from Beginning through Renaissance (3) I. Critical and theoretical writing pertaining to drama and theatre from beginnings through 17th century.

THEA 674. History and Principles of Dramatic and Theatrical Criticism from 18th Century to Present (3) II. Critical and theoretical writing pertaining to drama and theatre in 18th, 19th, and 20th centuries.

THEA 677. Seminar in Scene Design (3) Alternate years. Advance problems in scenic design for the stage, television, and film; history of design and major figures in its theoretical and practical development. Studio work provided. Prerequisite: THEA 566.

THEA 678. Dramatic Genres: Tragedy, Comedy and Mixed Form (3) On demand. Evolution of key critical and philosophical ideas that influenced concepts of form in tragedy, comedy, and mixed dramatic genres. Prerequisite: THEA 673 and/or THEA 674; may be repeated with approval of adviser.

THEA 679. Playwriting (3) II. Writer's workshop involving creation and production of original play for stage; discussion of process of playwriting and mounting a play for production. May be repeated with permission of instructor.

THEA 689. Internship in Theatre (1-12) I, II, summer. Supervised experience in theatre production: directing, business management or design and technical production. Must be approved by supervisor in advance of registration.

THEA 694. Teaching Theatre (1) I, II, summer. Problems which arise in day-to-day assistant/fellow activities. Includes observation by regular faculty. Must be taken by graduate assistant/fellows each term they have an assignment. Graded S/U.

THEA 698. Research Problems in Theatre (1-2) I, II, summer. Independent studies and research problems in theatre for doctoral degree students. Registration must be approved by program chair. May be repeated with approval of adviser.

THEA 760. Topics in Directing and Staging Styles (3) On demand. Stylistic problems in staging such as epic, absurdism, Restoration, Moliere. May be repeated with permission of adviser.

THEA 761. Topics in Empirical Research in Theatre (3) On demand. Seminar employing empirical research techniques in communication problems in theatre production. May be repeated with permission of adviser.

THEA 762. Topics in Directing and Staging Theory (3) On demand. Conventional tools of director, designer, and actor such as composition, rhythm, tempo, lighting, design, audience reaction. May be repeated with permission of adviser.

THEA 763. Topics in Technical Theatre (3) On demand. Topics concerning theatre architecture, rendering techniques, scenery, props, sound, lighting, costumes, and make-up.

THEA 766. Topics in Theatre History: Classic-Elizabethan (3). On demand. Theatre of ancient Greek, Romans, Middle Ages, and Elizabethan period; physical elements and conventional practices. May be repeated with permission of adviser.

THEA 767. Topics in Theatre History: 17th-19th Century (3) On demand. Western theatre during the 17th-19th centuries; physical elements and conventional theatre practices. May be repeated with permission of adviser.

THEA 768. Topics in Modern Theatre History (3) On demand. Western theatre during late 19th and 20th centuries. Various topics from year to year such as realism, space stages, educational theatre, Broadway, off-Broadway. May be repeated with permission of adviser.

THEA 774. Topics in Dramatic Theory and Criticism (1-3) On demand. Specific critics, playwrights, genres of theatrical literature, or particular critical viewpoints. May be repeated with permission of adviser.

THEA 775. Readings in Classical Neo-Classical Theatrical Literature (3) Alternate years. Dramatic literature in ancient Greece and Rome, and French neoclassical period.

THEA 776. Readings in 16-17th Century Theatrical Literature (3) Alternate years. Dramatic literature in England and continent during 16th and 17th centuries.

THEA 777. Readings in 18th-19th Century Theatrical Literature (3) Alternate years. Dramatic literature in America, England, and continent; sentimentalism, Romanticism.

THEA 778. Readings in 20th Century Theatrical Literature (3) Alternate years. Dramatic literature in America, England, and continent from age of Realism until present.

THEA 799. Dissertation Research (1-16) I, II, summer. Student must register for a minimum 16 hours in 799 while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Speech (SPCH)

SPCH 697 Empirical Research Design and Quantitative Analysis in Speech (3) Summer. Relevant designs, generating hypotheses, and selecting appropriate test procedures for empirical research in speech; possibilities and limitations of scientific method in research in speech. Prerequisite: two courses in statistics or consent of instructor.

BGSU

Bowling Green State University

1981-1983 Undergraduate Catalog

Where to go

Admissions information	110 McFall	372-2086
Adviser, assignment of	Departmental office of major	
Advising, academic		
College offices		
Arts and Sciences	215 Admin. Bldg.	372-2015
Business Administration	371 Bus. Admin. Bldg.	372-2747
Education	444 Educ. Bldg.	372-0151
Health and Community Services	100 Health Center	372-0242
Musical Arts	Musical Arts Bldg.	372-2181
Minority Affairs, Office of	230 McFall	372-0262
University Division	231 Admin. Bldg.	372-0202
Departmental offices		
Automobile registration	Parking Services, Commons Bldg.	372-2776
BG News	106 University Hall	372-2601
Counseling		
Counseling and Career Development Center	320 Student Services Bldg.	372-2081
Placement Service	360 Student Services Bldg.	372-2356
Psychological Services Center	309 Psychology Bldg.	372-2301
Center for Educational Options	231 Admin. Bldg.	372-0202
Changing majors	College offices	
Drop/add	Registrar, 110 Admin. Bldg.	372-0441
Employment, student	460 Student Services Bldg.	372-0252
Fact Line		372-2445
Fee payments	Bursar, 133 Admin. Bldg.	372-2815
Financial aid	450 Student Services Bldg.	372-2651
Green Sheet	806 Admin. Bldg.	372-2616
Health Service	Health Center	372-2271
Housing	440 Student Services Bldg.	372-2011
ID cards	Registrar, 110 Admin. Bldg.	372-0441
Library information	121 Library	372-2361
Loans	Financial Aid	372-2651
	450 Student Services Bldg.	
Organizations, student	Student Activities,	372-2843
	405 Student Services Bldg.	
Police (Campus Safety and Security)	Commons Bldg.	372-2346
Registering for classes	Registrar, 110 Admin. Bldg.	372-0441
Room and meal payments	Bursar, 133 Admin. Bldg.	372-2815
Scholarships	Financial Aid,	
	450 Student Services Bldg.	372-2651
Transcripts	Registrar, 110 Admin. Bldg.	372-0441
Validation cards	Bursar, 133 Admin. Bldg.	372-2815

1981-82 Academic Calendar

Summer Quarter

June 22, 1981-Monday
July 24-Friday
July 27-Monday
August 28-Friday
August 29-Saturday

Classes begin 7:30 a.m.
First term ends
Second term begins 7:30 a.m.
Summer Quarter ends
Commencement

Fall Quarter

September 23, 1981-Wednesday
November 25-Wednesday
November 30-Monday
December 7-Monday
December 11-Friday
December 12-Saturday

Classes begin 7:30 a.m.
Thanksgiving recess begins 7:30 a.m.
Classes resume 7:30 a.m.
Examinations begin 7:30 a.m.
Fall Quarter ends
Commencement

Winter Quarter

January 4, 1982-Monday
March 15-Monday
March 19-Friday
March 20-Saturday

Classes begin 7:30 a.m.
Examinations begin 7:30 a.m.
Winter Quarter ends
Commencement

Spring Quarter

March 29, 1982-Monday
May 31-Monday
June 7-Monday
June 11-Friday
June 12-Saturday

Classes begin 7:30 a.m.
Holiday-no classes
Examinations begin 7:30 a.m.
Spring Quarter ends
Commencement

The logo for Bowling Green State University, featuring the letters 'BGSU' in a large, bold, black, stylized font with a white outline. The letters are set against a white background and are enclosed within a thin black rectangular border. The 'B' is particularly large and rounded, while the 'G', 'S', and 'U' are more compact and blocky.

Bowling Green State University

1981-1983 Undergraduate Catalog

About This Catalog

1. Students are responsible for knowing all requirements and policies in this catalog, particularly those academic policies on pages 7-11.

2. This catalog is issued every two years. All information in this catalog was correct as of March 31, 1981, and is subject to change. Except as specifically stated herein, Bowling Green State University makes no representation or contract that following a particular course or curriculum will result in specific achievement, employment, or qualification for employment, admission to degree programs, or licensing for particular professions or occupations.

3. Programs are listed in this catalog under colleges in alphabetical order; under each program, courses are identified by a three- or four-letter abbreviation and a number. Course descriptions are listed in a section at the back of this catalog. They are listed in alphabetical order by department; courses offered through the University's Schools (Health, Physical Education, and Recreation; Speech Communication; Technology) are grouped under these schools.

4. The quarterly schedule of classes should be used in conjunction with this catalog to determine course availability since all courses are not offered every quarter.

5. The University reserves the right to change its course offerings and academic requirements for the baccalaureate degree. To protect students from unnecessary penalty where these changes occur, the following policies in regard to the *Undergraduate Catalog* are in effect:

a. Students' academic requirements are based upon the *Undergraduate Catalog* in force during their first quarter at BGSU.

b. Students may elect to complete a program under the most recent *Undergraduate Catalog*. If this choice is made, then the student must complete all additional requirements for the program selected.

c. Students who transfer from one BGSU college to another follow the *Undergraduate Catalog* in effect at the time of the transfer.

d. Students who transfer from other institutions follow the *Undergraduate Catalog* in effect at the time of their initial registration for courses at BGSU.

e. Students who initiate but do not complete a program and return to the University follow the *Undergraduate Catalog* in effect at the time of return.

f. Questions concerning catalog policy are directed to the appropriate academic dean.

6. The social security account number is used as an identifying account number throughout a student's attendance at the University. Students are required to disclose their social security account numbers as a condition for enrollment at the University.

7. Bowling Green State University provides equal educational and employment opportunity regardless of race, sex, color, national origin, geographical area, religion, creed, age, marital status, mental or physical handicaps, or veteran status. The University will not knowingly cooperate with, support, or employ the services of other organizations that discriminate against persons on such grounds. However, if any student with a physical disability requires special individual services or equipment, the student will be responsible for the expenses thereof. This policy includes the expense of providing personal tutors, personal attendants, medical technicians and so forth. The University will assist such students in communicating with proper community or government agencies to secure any available financial assistance to meet their needs.

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The University

Bowling Green State University is situated on a 1,250-acre campus, which includes more than 100 buildings. The University offers more than 150 undergraduate degree programs, as well as 60 master's programs, 13 doctoral programs, four specialist's programs, and 14 associate degree programs. More than 15,000 students, including about 2,000 graduate students, attend classes on the main campus. The University's total enrollment, including the Firelands College and various off-campus centers, is more than 17,000. At the center of the University's academic community are the 750 faculty members, who are engaged in teaching, research, and scholarship activities.

Established in 1910 as a teacher-training institution, Bowling Green held its first classes in 1914, but it was not until the following year that the first two buildings—now University Hall and Williams Hall—were ready for use. Student enrollment for that initial year totaled 304, with a faculty of 21. The first bachelor's degrees were awarded in 1917.

In 1929, the functions of Bowling Green were expanded to provide four-year degree programs in the College of Education and the College of Liberal Arts. The College of Business Administration and graduate programs were added in 1935, the year in which Bowling Green attained full university status. In 1947, the Graduate School was formed, and BGSU awarded its first doctoral degrees (in English) in 1963.

Beginning in 1946, extension programs of the University were offered in Sandusky, Ohio. During the next two decades, course offerings there were expanded and in 1965 a branch campus of the University was established to serve Erie, Huron, and Ottawa counties. That branch campus eventually became Firelands College, located in Huron, Ohio. Firelands College offers career and technical education leading to associate degrees in 14 areas, as well as the first two years of baccalaureate degree programs.

In the 1970s, three new colleges were developed to give added dimension to the University's curricular offerings. In 1973, the College of Health and Community Services was established to provide degree programs in specialized areas in various health and community service fields. In

1975, the School of Music was expanded into the College of Musical Arts, and in the same year the Graduate School became the Graduate College.

In addition to its degree programs, the University offers diverse opportunities for educational and cultural enrichment to the people of the area through its regional and continuing education programs, as well as through the intellectual and cultural activities that are an integral part of campus life.

The Campus

Included among the more than 100 buildings on the Bowling Green campus are some that were completed as early as 1915; more than half, however, have been constructed since 1960. Many are equipped with ramps and ground-level entryways for the handicapped.

The nine-story University Library is the focal point of the academic community. The design, open stacks, reading lounges, study carrels, and seminar rooms have been planned to create an atmosphere conducive to independent study. The Library houses a collection of approximately 650,000 volumes, 335,000 government documents, more than one million microforms, and 5,000 periodicals. Of special note is the music library collection which, with almost 175,000 recordings and audiotapes, is one of the largest of any academic institution in the nation. In addition, the Library contains a Curriculum Resource Center and a special materials section, which includes the popular culture and rare books collections.

Among the facilities in the science-research complex are the Psychology Building, the Mathematical Sciences Building, the Life Sciences Building, and Overman Hall. These provide specialized research equipment and laboratories to serve the needs of students in a variety of disciplines.

The Technology Building contains research modules, a computer graphics center, and specialized laboratories in design, electronics, manufacturing, visual communications, and other technologies.

Art facilities are located throughout the campus and include individual studios for design and workshops for such art areas as jewelry making, wood working, painting, drawing, enameling, weaving, print

making, sculpture, ceramics, and glass blowing. Photography laboratories are also available at several campus locations. An art gallery located in the Fine Arts Building annually features exhibits of works by faculty and students.

The campus radio stations, WFAL-AM and WBGU-FM, provide students with practical experience in daily station operations. Students also support the professional staff in the programming and activities of WBGU-TV, a regional public television station located on campus that serves northwest Ohio and northeast Indiana.

Theatre students at the University have many opportunities to participate in all phases of the theatre experience through annual productions held in University Hall's Main Auditorium as well as the Joe E. Brown Theatre.

The Musical Arts Center, completed in 1979, provides extensive and modern facilities for the University's music programs and activities. Constructed around an open courtyard, the music center includes an 850-seat concert hall, a 250-seat recital hall, as well as practice rooms, rehearsal halls, classrooms, studios, and a variety of special facilities designed for specific areas of performance and instruction.

The focal point of campus recreational activity is the Student Recreation Center, also completed in 1979. Among the facilities contained in the recreation center are two swimming pools, 14 handball/racquetball courts, a running track, and basketball/volleyball/tennis courts, as well as areas designed for games and table sports. Other campus athletic and recreational facilities include a 22,000-seat football stadium, an ice arena, an 18-hole golf course, and 25 tennis courts.

The University Union is a center for social and cultural activities on campus. There are four food service facilities and 26 guest rooms in the Union, and a wide range of lectures, concerts, and other activities are presented in the Grand Ballroom, located on the second floor.

Completed in 1976, the Mileti Alumni Center is the hub for the many activities of the University's alumni. It contains meeting rooms, a library, and an art gallery which features works by alumni, faculty, and students.

The University art gallery is located in McFall Center, which also houses administrative offices.

Other campus buildings house classrooms and facilities for programs in business administration, education, and the humanities.

Academic goals of the University

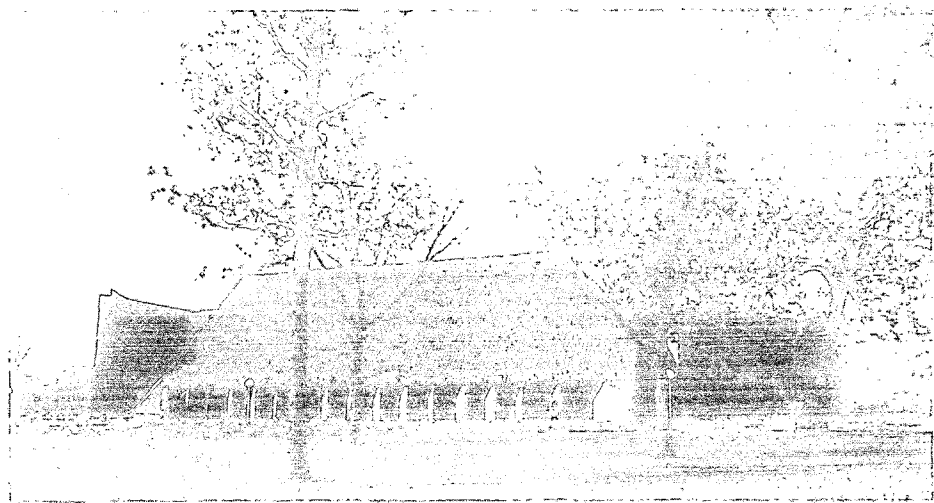
Bowling Green State University is dedicated to providing quality academic programs in a learning environment that promotes academic and personal excellence in students, as well as appreciation of intellectual, ethical, and aesthetic values. Wisdom, sound judgment, tolerance, and respect for other persons, cultures, and ideas are the hallmarks of an educated person and the characteristics that the University hopes to develop in its students.

The extent to which these goals are met depends on the intellectual and cultural environment of the University, the wisdom and dedication of its faculty, and the intellectual curiosity, ability, and energy of its students. To achieve this end the University strives to attract the most qualified students and faculty committed to the goals of quality education, productive research, and scholarly achievement.

Through a vigorous program of curricular evaluation and development, Bowling Green State University seeks to ensure that those who earn a baccalaureate degree from any of the colleges of the University will have acquired practical and theoretical understanding in a specific area of specialization; demonstrated competency in critical thinking, problem solving, reading, writing, speaking, computation, and mathematics; acquired a fundamental breadth of knowledge in literature, the fine arts, and the other humanities, as well as in the natural, social, and behavioral sciences; experienced personal growth through interaction with all elements of the University community and through exposure to other cultures; and enjoyed the opportunity to explore diverse individual academic interests through the variety of courses and programs available at the University. The baccalaureate degree, which is designed to accomplish these objectives, has three chief components: the program major, which may include a cognate minor area of concentration; the general education component with its focus on skills and broad functional understandings; and the elective courses, which provide the opportunity to discover and explore new intellectual horizons.

Accreditation and Recognition

The University is fully accredited at the bachelor's, master's, and doctoral levels by the North Central Association of Colleges and Secondary Schools. In addition, the



College of Business Administration is accredited by the American Assembly of Collegiate Schools of Business (AACSB); teacher education, by the National Council for Accreditation of Teacher Education (NCATE) and the Ohio State Department of Education; the College of Musical Arts, by the National Association of Schools of Music (NASM); chemistry, by the American Chemical Society; psychology, by the American Psychological Association; nursing, by the National League for Nursing; rehabilitation counseling, by the Council on Rehabilitation Education; journalism, by the American Council on Education for Journalism; social work, by the Council for Social Work Education; communication disorders, by the Education and Training Board of the American Speech-Language-Hearing Association; theatre, by the National Association of Schools of Theatre; and medical record technology (Firelands College), by the American Medical Record Association.

Academic organization

Courses of instruction leading to baccalaureate degrees are provided through: 1. The College of Arts and Sciences, which includes the School of Art and the School of Speech Communication; 2. The College of Business Administration, which includes the School of Journalism; 3. The College of Education, which includes the School of Health, Physical Education, and Recreation and the School of Technology; 4. The College of Health and Community Services, which includes the School of Nursing; 5. The College of Musical Arts. Associate degrees are available through Firelands College and the College of Business Administration. Graduate degrees are offered through the Graduate College.

An undergraduate student enrolls in one of the six colleges—Arts and Sciences, Business Administration, Education, Firelands, Health and Community Services, or Musical Arts. An undergraduate student who is undecided as to college or major enrolls in University Division.

The University emphasizes the liberal education of freshmen and provides ad-

vising for them, especially for those undecided about their major. The University Division assists students in meeting the requirements of the specific degree-granting undergraduate colleges.

Degrees offered

Four-year undergraduate programs are available leading to the following degrees:

- Bachelor of Arts
- Bachelor of Arts in Communication
- Bachelor of Fine Arts
- Bachelor of Liberal Studies
- Bachelor of Music
- Bachelor of Science
- Bachelor of Science in Applied Microbiology
- Bachelor of Science in Art Therapy
- Bachelor of Science in Business Administration
- Bachelor of Science in Child and Family Services
- Bachelor of Science in Criminal Justice
- Bachelor of Science in Dietetics
- Bachelor of Science in Economics
- Bachelor of Science in Education
- Bachelor of Science in Environmental Health
- Bachelor of Science in Gerontology
- Bachelor of Science in Journalism
- Bachelor of Science in Medical Record Administration
- Bachelor of Science in Medical Technology
- Bachelor of Science in Nursing
- Bachelor of Science in Parasitology and Medical Entomology
- Bachelor of Science in Physical Therapy
- Bachelor of Science in Social Work
- Bachelor of Science in Speech Pathology and Audiology
- Bachelor of Science in Technology

Two-year programs are available leading to the following associate degrees:

- Associate in Applied Business (Business Administration)
- Associate of Arts (Firelands)
- Associate of Applied Business (Firelands)
- Associate of Applied Business (Firelands)

See the *Graduate Catalog* for a list of graduate degrees offered by the University.

Academic Policies

Baccalaureate Degree

The baccalaureate degree program should enable all students to achieve the intellectual, ethical, and cultural maturity that will allow them to become responsible participants in our society. The University curriculum for the degree has three components: general education, which focuses on skills and understandings; the major, which may include a minor area of concentration; and the elective courses, which enable students to explore fields outside the above components.

General education addresses the acquisition of basic skills in reading and writing, computation, and mathematics, problem-solving and critical thinking, and integrating values in decision-making, and the acquisition of functional understandings in literature, the fine arts, and other humanities; the natural sciences; the social and behavioral sciences; and an understanding of at least one culture other than one's own.

The major provides the student with practical and theoretical knowledge in depth in one particular area of study. Electives allow the student to explore diverse individual academic interests, or interests that relate to the major.

Dual Degree Programs

A candidate for an undergraduate degree from a college who desires to take a second degree from another college within the University may:

1. take work in the second college after graduating from the University
2. qualify for the dual degree program by meeting the requirements listed below.

A student desiring a dual degree must:

1. secure permission of the deans of both colleges before the end of the junior year;
2. maintain an accumulative grade point average (GPA) of 3.0 or better based upon at least two quarters of work at Bowling Green;
3. complete the requirements of both colleges for the degrees sought; and
4. complete at least 30 hours of credit beyond the hours required for a single degree.

On the basis of the accumulative grade point average (GPA), a student may register in both colleges for the dual degree as soon as eligible.

General Requirements for the Baccalaureate Degree

A candidate for a baccalaureate degree must complete the requirements listed below and any additional requirements set by the colleges for the specific degree sought. Check the appropriate sections of this catalog for additional degree requirements. The general requirements are:

1. Satisfy all University entrance requirements.
2. Earn a minimum of 183 quarter hours of credit, at least 45 of which must be completed at Bowling Green immediately before graduation (some degrees require more than 183 hours of credit).
3. Earn an accumulative grade point average of at least 2.0 ("C") for the quarter hours required for graduation.

4. Complete three quarter hours of general physical education activities courses (PEG 100) preferably in the freshman year unless complete credit is granted for experiences in the U.S. Armed Forces or waived for a physical handicap. In the case of the latter exception, a student must obtain a certificate from a University physician and the approval of the dean of the college in which the student is enrolled. One-hundred-level PEG activities courses must be completed before the student enrolls in PEG activity courses at the 200 level.

5. Complete ENG 112, preferably in the freshman year. (See p. 8 for writing proficiency requirements.)

6. Complete at least 60 hours of credit in courses numbered 300 and above. If a senior takes a course numbered 100-199 (except foreign language or computer science), an additional hour must be taken as a graduation requirement.

7. Satisfy all course requirements for the degree as listed in the appropriate sections of this catalog.

8. File an application for graduation according to the following schedule.



- a. For graduation in December, an application must be filed by the preceding October 10.
- b. For graduation in March or June, the deadline for filing an application is the preceding January 15.
- c. For graduation in August, the filing date deadline is the preceding June 15.

An application form and information may be obtained at the Office of Registration and Records, 110 Administration Building. A student not accepted as a candidate under the above procedure or who does not fulfill requirements toward a degree within four weeks after commencement must apply again for graduation at the next commencement.

Requirement of Writing Proficiency

Recognizing that the ability to communicate in writing is a valuable skill and a hallmark of an educated person, the University requires that each student enrolled in a baccalaureate or associate degree program complete satisfactorily ENG 112 or give evidence of proficiency in written expression equivalent to that attained by the student who satisfactorily completes this course. No student can be excused from meeting this requirement, nor can the requirement be postponed.

The courses and services designed to aid students in meeting the writing requirement are coordinated through the General Studies Writing program. The English Placement Test, administered through this program, assesses the writing skills of en-

tering students. On the basis of this test, students are placed in ENG 110 (Developmental Writing), ENG 111 (Introductory Writing), or ENG 112 (Varieties of Writing). A student may be required to take two or three of these courses, but no more than eight hours of credit earned in these courses may be applied toward graduation. The writing proficiency of students is evaluated at the end of each course until students have reached the University proficiency requirement expected at the end of ENG 112. Students who wish to receive transfer credit for English composition and communication courses from technical schools, junior colleges, and community colleges, as well as students who wish to be exempted altogether from English composition, are also tested for writing proficiency.

To encourage all students to pass ENG 112 prior to the beginning of the junior year, 4 credit hours are added to the graduation requirements of students who pass ENG 112 after accumulating 90 credit hours; 5 hours, to the graduation requirements of those with 135 or more credit hours. This requirement applies only to new students who enter the University on or after September 1, 1981.

The following are exempt from this penalty:

1. students transferring to BGSU with 46 or more credit hours, provided that ENG 112 is passed within the first 45 credit hours earned at BGSU after the transfer; and
2. international students who transfer to BGSU with 31 or more credit hours and for whom English is a second language. Exemption from the penalty must be recom-

mended by the director of international programs and ENG 112 must be passed within the first 60 credit hours earned at BGSU.

General Requirements for the Associate Degree

A candidate for an associate degree must complete the requirements listed below and any additional requirements set by the colleges offering this degree. The requirements are:

1. Satisfy all University entrance requirements.
2. Earn a minimum of 93 quarter hours (some degrees require more than 93 hours of credit).
3. Earn an accumulative grade point average of at least 2.0 ("C") for the quarter hours required for graduation.
4. Complete three quarters of general physical education activities courses (PEG 100), preferably in the freshman year. PEG 100 courses are not required for the Associate of Applied Science or for the Associate of Applied Business (Firelands only) and may be waived for the Associate of Arts if a student is over age 25.
5. Complete ENG 112, preferably in the freshman year. (See p. 8 for writing proficiency requirements.)
6. Complete all course requirements for a degree program as listed in the appropriate section of this catalog.
7. File an application for graduation according to the following schedule.
 - a. For graduation in December, an application must be filed by the preceding October 10.



b. For graduation in March or June, the deadline for filing an application is the preceding January 15.

c. For graduation in August, the filing date deadline is the preceding June 15.

An application form and information may be obtained at the Office of Registration and Records, 110 Administration Building, or the Registration Office in the East Building at Firelands.

A student not accepted as a candidate under the above procedure or who does not fulfill requirements toward a degree within four weeks after commencement must apply again for graduation at the next commencement.

Other Policies

Classification of Students

Classification of a student as a freshman, sophomore, junior, or senior is determined on the basis of credit hours earned.

In a baccalaureate degree program a student is classified according to hours earned as follows: freshman, 0-44 hours; sophomore, 45-89 hours; junior, 90-134 hours; senior, 135 hours to hours required for graduation.

A student who is enrolled for undergraduate course work but who does not have a degree goal is an unclassified undergraduate student. A student who has earned a degree and who desires to register for undergraduate courses without pursuing another degree enrolls as an unclassified degree-holder.

Change of College or Major

A student whose goals have changed may wish to change to another college or major. Before changing to another college a student should explore the requirements of the desired college. To change to another college, a student must have at least a 2.0 accumulative grade point average and obtain the approval of the college to which the student is transferring. The transfer also must be officially recorded by the dean's office of the college from which the student is transferring.

A student who wishes to change a major within a college should notify the college office. At that time an appropriate adviser is assigned.

Academic advisers are available in the college offices to help students select the degree program that best meets individual needs and interests.

Withdrawal from the University

A student who wishes to withdraw from the University in good standing must obtain the permission of the dean of the college in which the student is enrolled. If a student leaves the University without proper notice

and permission, a mark of "WF" is recorded in all courses for which the student is currently enrolled. The student is not entitled to any refund of fees nor to a certificate of honorable dismissal.

A student who withdraws with permission from the University will have all courses from the quarter dropped and no grades recorded unless the student has previously withdrawn from a course with a "WF." A student who withdraws from the University within three weeks of the end of the quarter is not permitted to enroll for the next quarter except by special permission of the dean of the college.

When, in the judgment of the medical staff of the Student Health Service, the physical or mental condition of a student might be disadvantageous to the health or welfare of that student or others on the campus, the University may require the withdrawal of the student from the University.

See Refund of Fees under Fees and Charges, page 23.

Grading Policies

Courses are graded as follows: "A"—excellent; "B"—good; "C"—acceptable; "D"—poor but passing; "F"—failure; and "WF"—withdrawn failing.

Certain courses (including student teaching, some internships, remedial courses, and required physical education courses) are graded S/U only and are so indicated in the course descriptions. "S" means satisfactory and indicates course credit was earned; "U" means unsatisfactory and indicates no credit. A student may also elect the S/U grading option in no more than 24 credit hours in a baccalaureate degree program (beyond those hours graded S/U only). The grading option must be declared at the Office of Registration and Records no later than seven calendar days after the beginning of classes for a quarter. Many departments do not accept courses taken under the S/U option for credit in major or minor requirements; students should consult departmental officials.

The grade of "S" is interpreted as falling within the range of "A" to "C" and carries full credit. A grade of "U" is interpreted as "D" to "F" and carries no credit. "S" and "U" grades do not affect the accumulative grade point average.

A student who withdraws from a course may receive a grade of "WP" (withdraw passing) or "WF" (withdraw failing). "WP" is assigned when a student withdraws in good standing during the third through sixth week of a course. "WF" is assigned if the student is failing at the time of withdrawal from the course during the third through the sixth week of a quarter; the student withdraws after the sixth week of a quarter; or if the student stops attending but does not process an official withdrawal in the Office of Registration and Records. This provision applies to all grading options, including S/U. The grade of "WF" is

used in computing the grade point average. A student who officially withdraws from the University receives a "W" in all courses, unless the student has previously withdrawn from a course with a "WF." "WP" and "W" grades are not recorded on a student's permanent record.

See Incomplete Marks, this page.

See Withdrawal from University, page 9.

Grade point average

For averaging grades, the following quality points are assigned to each letter grade:

For each hour of "A"—4 points;

For each hour of "B"—3 points;

For each hour of "C"—2 points;

For each hour of "D"—1 point;

For each hour of "F" or "WF"—0 points;

For each hour of "I"—0 points after the deadline for removal.

A student's grade point average is obtained by dividing the total number of quality points earned by the total number of hours taken, excluding courses in which the marks "S," "U," "P," "W," or "WP" are recorded. The hours for which a mark of "I" is recorded are excluded from grade point average computation until the deadline for removal.

As an example a student receives the following grades for a quarter:

Biology (a 5-hour course) B

English (a 4-hour course) B

French (a 4-hour course) C

Health (a 3-hour course) A

First, determine the number of quality points earned for each course. For example, each hour of B is worth 3 points and a 5-hour B is worth 15 points (3×5). Therefore, the above grades translate into quality points as follows:

$$5 \text{ times } 3(B) = 15$$

$$4 \text{ times } 3(B) = 12$$

$$4 \text{ times } 2(C) = 8$$

$$+ 3 \text{ times } 4(A) = 12$$

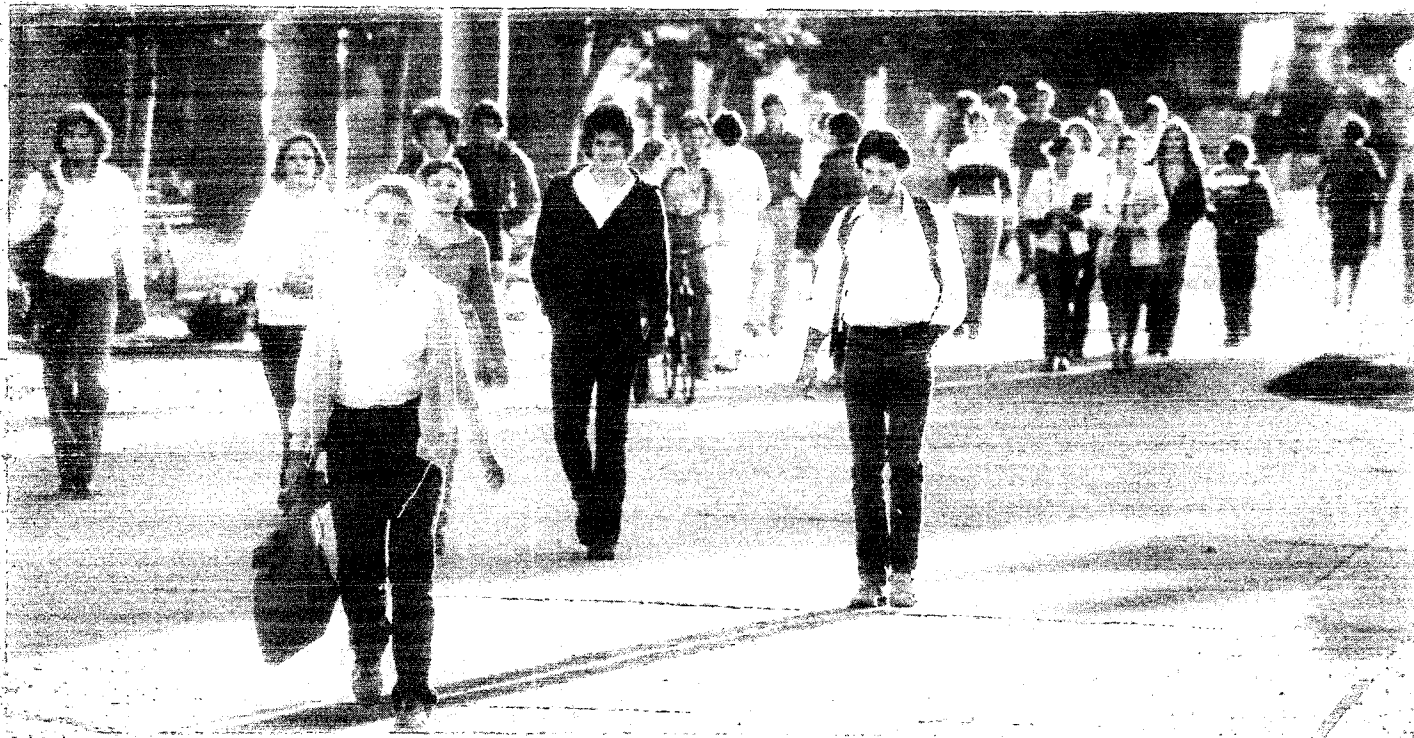
$$\hline 16 \text{ hours} \quad 47 \text{ quality points}$$

Now, divide the number of quality points by the number of hours earned. The grade point average for this sample schedule is 2.9375 or 2.93. Grade point averages are not rounded up to the nearest hundredth of a point.

Incomplete Marks

The mark of "I" (incomplete) is given when, for some acceptable reason, a student fails to meet a definite requirement in a course as established by the instructor. In courses graded only on an S/U basis and in courses elected to be taken on an S/U basis, a grade of "I" or "U" is recorded until the work is satisfactorily completed. The mark of "I" or "U" may be removed and a grade (if taken for a grade) or the letter "S" (if taken S/U) may be substituted for it by a student making up the deficiencies to the satisfaction of the instructor.

Unless an extension of time is granted by the academic dean, a mark of "I" or "U" must be removed by February 15, May 15, August 15, and November 15 for the fall,



winter, spring, and summer quarters respectively. Incompletes not removed by these deadlines will be computed as "F" in the accumulative grade point averages of all undergraduate students with or without an extension of time. The student who has been granted an extension, however, will have the opportunity to have his or her grade point average recalculated. The grade entry on the permanent record remains an "I."

Grade Appeals

Students have a right to appeal decisions on grades. The student should first contact the department from which the grade was received. A member of each department is designated and will act as the arbitrator in appeals cases. If the matter is not resolved at the department level, the student may request a hearing before the academic arbitration board of the appropriate school or college. However, the sole responsibility and authority for determining grades rests with the faculty member who assigned the grade. The appeals procedure also may be used if a student believes an opportunity should be provided to make up work missed during absence from classes.

Academic Honors

Dean's List

Full-time undergraduate students who demonstrate a high level of excellence in academic work have their names placed on the Academic Dean's List. The requirement for achieving the Academic Dean's List is a grade point average of 3.5 or above in the preceding quarter with no fewer than 12 credit hours included in the grade point average computation.

Graduation with Honors

The record of each senior with a very high point average is carefully reviewed by the University Committee on Honors and Awards in order that appropriate recognition and honor may be accorded each student who has achieved outstanding academic success throughout four years of college. The tentative honor announced at Commencement and released to the newspapers is figured without the student's last quarter grades. The final honor which is put on the permanent record and diploma is based on the student's entire academic record.

In determining academic honors, total letter-graded credits (TLC) are credits for those courses that determine the student's grade point average.

Cum Laude

Cum laude signifies a high level of academic achievement and graduation with praise. This honor requires a minimum of 90 TLC and an accumulative grade point average at least as high as the larger of 3.50 or the results of the formula $3. + \frac{85}{\text{TLC}}$.

Magna cum laude

Magna cum laude signifies a very high level of academic achievement and graduation with great praise. This honor requires a minimum of 130 TLC and an accumulative grade point average at least as high as the larger of 3.75 or the results of the formula $3. + \frac{130}{\text{TLC}}$.

Summa cum laude

Summa cum laude signifies the highest level of academic achievement and graduation with great praise. This honor requires a minimum of 150 TLC and an accumulative grade point average at least as high as the larger of 3.90 or the results of the formula $3. + \frac{150}{\text{TLC}}$.

Transfer credit

In the case of transfer credit, each record is studied and evaluated individually. In general, the following principles serve as guides:

1. A student entering the University with transferred credit must meet the accumulative grade point average standard for honors in all hours completed, transferred and otherwise, which are considered jointly. In addition, the point average of all work taken at Bowling Green State University must be of honors quality;

2. A student must have completed at least 83 hours at BGSU. At least 45 of these hours must be in letter-graded courses. No more than 12 of these 83 hours may be taken S/U at the student's option;

3. A candidate should be in residence at least one academic year or 45 hours in consecutive summers (attending either one quarter or both of the terms each summer) immediately preceding graduation. A student with written permission to participate in an approved combination curricula in cooperation with a professional school or college of another institution is exempt from this requirement.

In reviewing the record of a candidate for honors, each case is judged on its own merit.

Repeating a Course

A student may repeat a course in which a grade of "D," "F," "I," "U," or "WF" was received. If a student repeats such a course at the University, then:

1. The credit hours and quality points for the original registration will not be used in computing the student's accumulative grade point average;

2. The credit hours and quality points for each repeat registration will be used in computing the accumulative grade point average; and

3. The course must be taken for a letter grade unless it is graded S/U only.

No grade is removed or erased from a transcript by repeating a course.

For other courses that are repeated, the grades and credit hours for both the first and subsequent registrations are counted in computing the student's grade point average. If the student repeats a course in which a grade of "C" or higher was received, no additional credit hours are thereby earned.

If a student receives a grade of "D," "F," "I," "U," or "WF" in a course and then receives credit for that course by successful completion of a similar course at another institution, the credit hours and quality points for the first registration will continue to be used in computing the student's grade point average.

Students must report each repeat registration to the Office of Registration and Records.

Unsatisfactory Academic Progress

Academic Warning

Freshmen or sophomores are warned of unsatisfactory progress when their accumulative point hours and quality points indicate a deficiency from a "C" (2.0) average by more than five quality points. (See Grade Point Average, page 9.)

Academic Probation

The academic standing of a freshman or sophomore is considered unsatisfactory and the student is placed on academic probation when the accumulative point hours and quality points indicate that the student is deficient from a "C" (2.0) average by more than 10 quality points. (See Grade Point Average, page 9.)

The academic standing of a junior or senior is considered unsatisfactory and that student is placed on academic probation when the accumulative point hours and quality points indicate that the student is deficient from a 2.0 average by more than five quality points.

A student on probation because of unsatisfactory academic standing must follow a restricted program as follows:

1. The course load must not exceed 16 hours and may be less if so determined by the college dean;

2. The student may not take part as a performer or an officer in any meeting or conference except for an activity begun the preceding quarter. A student on probation cannot compete in intercollegiate athletics.

Academic Dismissal

The freshman or sophomore student is academically dismissed from the University when the accumulative point hours and quality points indicate deficiency from a 2.0 average by more than 15 quality points. (See Grade Point Average, page 9.)

The junior or senior student who is not in good standing at the beginning of fall quarter is academically dismissed when grades are deficient from a 2.0 accumulative average by more than 10 quality points.

A junior or senior who is in good standing at the beginning of the fall quarter may enroll for the winter and spring quarters of the same year without regard to academic standing at the close of the preceding quarter.

See Refund of Fees under Fees and Charges, page 23.

Reinstatement

A student who is dismissed because of unsatisfactory academic standing may enroll for the summer quarter or in the third quarter following dismissal. If the third quarter is the fall quarter, the enrollment must be approved by the office of the student's college. The student needs to have a total quality point deficiency of not more than 15 points as a freshman or sophomore or not more than 10 points as a junior or senior at the end of the quarter to qualify for reinstatement. (See Grade Point Average, page 9.)

If the enrollment capacity of the University for the next quarter, as determined by University officials, has already been reached when the student becomes eligible for reinstatement, readmission may be allowed in a later quarter.

A student who does not qualify for reinstatement at the end of the quarter but who has reduced the quality point deficiency by as many as four points may enroll for the next quarter providing appropriate class and housing space is available.

The student who is academically dismissed may not qualify for reinstatement through attendance at another college or university. Advanced standing credit is granted for courses completed at another institution during a student's period of suspension from Bowling Green only upon acquisition of a 2.0 accumulative grade point average at Bowling Green.

Advanced Placement

Advanced placement may be achieved in six ways:

1. Demonstrating appropriate achievement on Bowling Green placement tests, which leads to exemption from courses but *not* credit.

2. Passing an examination administered by an academic department of the University; see Credit by Examination.

3. Completing a college-level course in high school and earning a prescribed grade in an advanced placement examination administered by the College Entrance Examination Board (CEEB). This leads to college course credit. (For more information, contact Center for Educational Options on the main campus, or the Office of Student Services at Firelands.)

4. Attaining appropriate scores on the general examinations of the College Level Examination Program (CLEP). This leads to college course credit. See Center for Educational Options, page 58.

5. Passing a higher level course in a sequence with a grade of "C" or above and thereby earning credit for lower level sequence courses in prescribed departments.

6. Demonstrating appropriate achievement in course work during the freshman year and on a set of examinations at the end of the freshman year administered through the Time-Flexible Degree Program.* See Center for Educational Options, page 58.

Credit by Examination

An undergraduate student may gain credit by examination with the approval of the student's dean and the department involved. The student wishing credit in a course must not have enrolled in the course previously and must present sufficient evidence of prior study or experience. The course cannot be a prerequisite for any course the student has completed. Once approved, the examination must be completed within four weeks of the approval. This option may not be repeated. A \$15 fee is assessed for a credit-by-exam course. Further information on procedures is available at the student's college office.

A student may also receive credit for course work taken at another institution, in which the final grades were equivalent to "C" or better but which did not transfer because of BGSU policies, by taking a validation examination.

A student in the School of Nursing may take the National League for Nursing exam to validate course work taken before entrance into BGSU's baccalaureate program in nursing.

*For 1981-82, this option is not available.

Special Academic Options

Study Abroad

BGSU offers many opportunities for students to participate in education programs in other countries. Some programs are offered for the entire academic year while others are for one quarter. Students may also arrange for study abroad on an individual basis by contacting the Office of International Student Programs, 16 Williams Hall, 372-2247, or the Center for Educational Options, 231 Administration Building, 372-0202.

ASIA—Korea, Japan

Through the Asian studies program, students may have the opportunity to study in either Korea or Japan. This program is conducted on an exchange basis, with equal numbers of students exchanged between the participating universities. BGSU has an exchange arrangement with Yonsei University in Korea and Nanzan University in Japan. Tuition is waived for both the Asian and American students. Students bear the cost of airfare, room, and board, and live with a family in the host country for a total cultural immersion experience. All academic credits earned at the host institution are transferable to Bowling Green.

AUSTRIA—Salzburg

The Department of German and Russian conducts an academic year abroad program in Salzburg, Austria. The program consists of two semesters (three quarters) of academic study in a German-speaking country with an excellent cultural environment. All academic work is done in German. The curriculum includes courses in German language and literature, as well as the arts and the social sciences. Qualified music students may also take courses at the Mozarteum. An American program director resides in Salzburg, but the teaching staff is drawn from the faculty of the University of Salzburg. Students live with Austrian students in a dormitory.

The program generally runs from October 1 through June 30. Applications are accepted starting in January of every academic year. Applicants must have the equivalent of two years of college German prior to leaving for the year abroad. Students must also have a minimum accumulative grade point average of 2.25 in all academic work, with a 2.5 minimum GPA in German courses. A similar program is offered during the summer quarter. For more information, call 372-2268.



ENGLAND—Brighton

An exchange program exists for physical education majors with Brighton Polytechnic of Brighton, England. This study abroad is usually arranged for the winter quarter of the student's senior year. Recently plans have been discussed to expand the exchange arrangement to include students in art, sociology, recreation, and the humanities. For more information, call 372-2209 for physical education; 372-2786 for art; and 372-2546 for sociology.

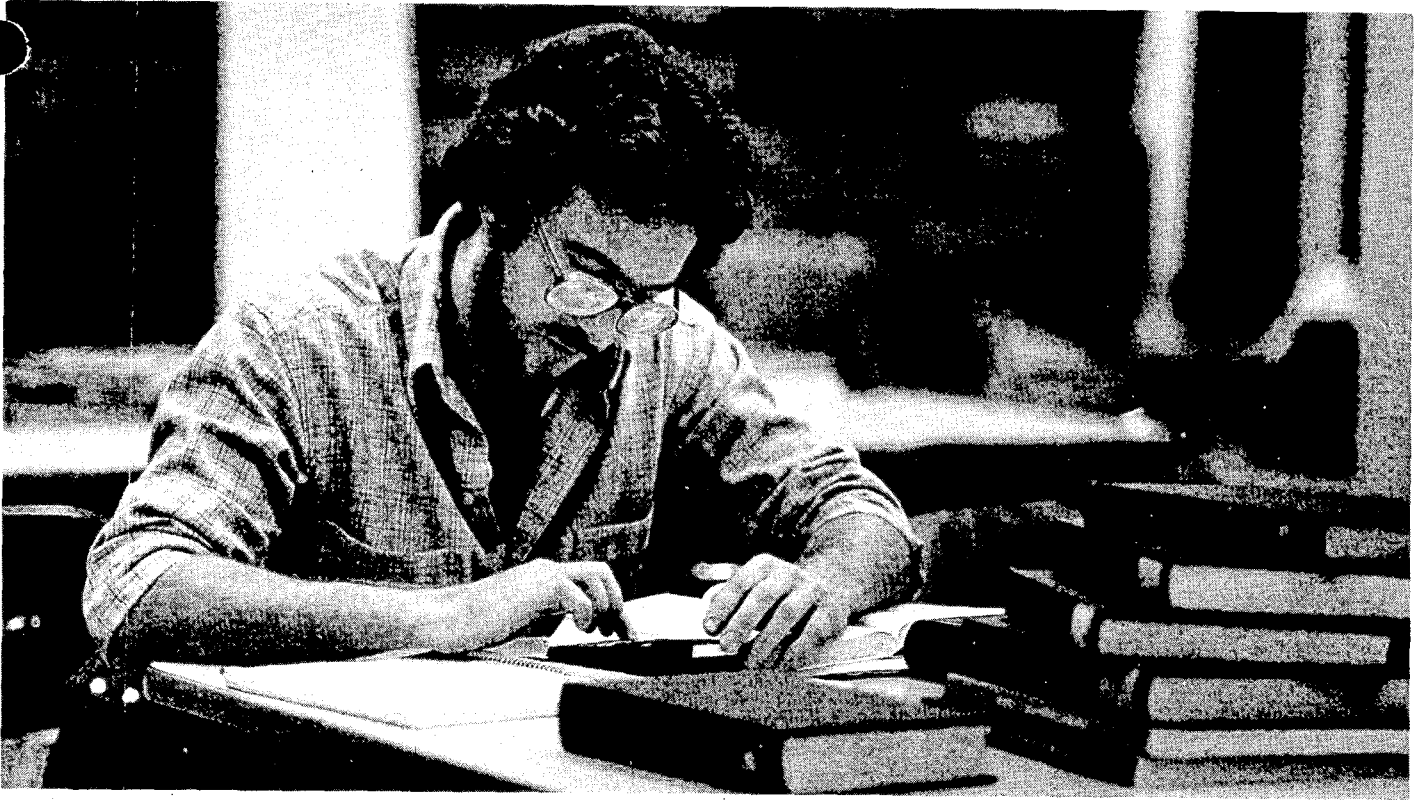
FRANCE—Tours

Tours, situated in the "garden of France," is the site of BGSU's academic year in France, conducted by the Department of Romance Languages. All courses are conducted in French and include work in French language and literature, as well as the arts and social sciences. Students live with carefully chosen French families. A BGSU faculty member supervises the program, but the teaching staff is drawn from the University of Tours and the Institut d'Etudes Francaises de Touraine.

The program is open to any student having completed FREN 202, regardless of the major area of study. A student must have a minimum 2.5 accumulative grade point average, with a 2.5 average in French courses. For more information, call 372-0278.

FRANCE—Nantes

The College of Business Administration offers an opportunity to enroll in a five-week summer session at l'Ecole Supérieure de Commerce et d'Administration des Entreprises, a business school in Nantes, France. All students are eligible, although preference is granted to juniors and seniors. Courses are taught in English and carry nine hours credit. Knowledge of French is not required. However, special language courses are offered in the spring quarter and at the French school for those who wish to improve their language skills. The course of study includes the common market, the European financial environment and business, and labor and social relations in selected countries.



GERMANY

In cooperation with the Federation of German American Clubs (West Germany), BGSU maintains a direct student exchange with German universities. This program brings two German students to BGSU each year, in exchange for two BGSU students going abroad to one of 13 cooperating German universities. BGSU students must have approximately a 3.00 grade point average and fluency in German. Preference is given to students entering their junior year. The program is open to all students, regardless of major area of study. For information, contact the Office of International Programs, 372-2247.

SPAIN—Madrid

The Department of Romance Languages conducts a year-round study program in Madrid, Spain. The curriculum for the four-quarter program includes course work in the Spanish language and literature, as well as in the arts, history, and geography of Spain. All courses are taught in Spanish and are approved by the respective departments at BGSU. The teaching faculty is drawn from the staff of Spanish institutions of higher learning. An American program director resides in Madrid and supervises the academic program. The program is open to any qualified student regardless of major area of study.

The department also offers a graduate summer study program for students enrolled in the M.A. degree program in Spanish. For high school students, a 3-week summer program is offered, as well as a 3- or 6-week program for high school teachers. For more information, call 372-0053.

Student Teaching Abroad

Students enrolled in the College of Education and interested in completing their student teaching in another country may apply for student teaching sites in Sao Paulo, Brazil; Bogota, Colombia; or Montreal and Toronto, Canada. While completing the student teaching requirements, students live with national host families and participate in the daily cultural activities of the country. All instruction is provided in English, and knowledge of the national language is not a requirement. For more information, call 372-0151, ext. 367.

Independent Studies Program

Any student beyond the freshman year can earn credit by designing and satisfactorily completing a travel/study project under the sponsorship of a faculty member. Up to 16 hours of general education credit can be earned in one quarter if the student desires. Single independent study projects carrying more than five hours of credit require a second faculty sponsor and the permission of the student's college dean. All credits earned are graded S/U. Independent study projects in Edinburgh or Glasgow, Scotland, with contacts already established, are also available. For more information, call 372-0202.

Center for Educational Options

The Center for Educational Options provides University-wide educational programs which enrich the undergraduate experience. The Center places special

emphasis on options for freshmen. University-wide programs housed in the Center include the University Honors Program, the University Division, Off-Campus and Independent Studies, the University Seminar, Career Planning and Decision Making, Summer Transition Courses, University-wide General Education Liaison, and the Time-Flexible Degree Program. For more information, see page 58.

University Honors Program

This program is open to qualified incoming students and to other undergraduates who are concerned about the quality of their general education as well as their field of specialization. The Honors Program offers intellectually challenging experiences in general studies and recognition for outstanding performance. An Honors Center provides a place for social as well as academic meetings with students of similar ability and motivation, and the program's affiliation with the Mid-East Honors Association and with the National Collegiate Honors Council offers opportunities for interaction with honors students from other universities. Limited special housing is available.

The general honors program and departmental honors programs may be pursued through the senior year thesis, leading to "honors" on the diploma. Both programs offer an array of honors sections which are available without having to make a four-year commitment.

The honors program does not displace nor conflict with departmental majors, nor does it require additional courses. Rather,

the program is designed to provide more scholarly, yet personalized, strategies for satisfying general studies requirements in the various BGSU colleges. In departmental honors programs the emphasis is also on more intensive and extensive study than is available in more usual course sequences.

Admission criteria for incoming students include:

1. An ACT composite of 26 or above (SAT equivalent is being established);
2. High school grade point average of 3.0 ("B") on a 4.0 scale or rank in the top 10 percent of the high school graduating class;
3. Placement in or exemption from ENG 112;
4. Two letters of recommendation;
5. Possible interviews after committee screening of application.

For more details and an application form, contact the Honors Program office, 231 Administration Building, 372-0202. The deadline for all application materials is June 1; successful candidates will be notified by July 1 and will meet with the honors director during their scheduled Pre-Registration time to discuss course options, including special registration privileges.

Admission criteria for continuing students include:

1. Completion of 15 credit hours at BGSU with a 3.5 ("B+") grade point average or completion of two University Honors courses with grades of "B" or better;
2. Placement in, exemption from, or completion of ENG 112.

Interdisciplinary honors seminars, courses, and departmental sequences are being developed throughout the University's curricula. For details regarding available options, contact the Honors Program office.

The program is optional and open to any student, within any academic discipline on campus, who chooses to participate. Adviser approval is required. Academic credit may be awarded for the off-campus work experiences, subject to departmental approval. Interested students should contact the Office of Cooperative Education, 222 Administration Building, (419) 372-2451, for information.

Evening Credit Program

The Evening Credit Program offers a wide variety of undergraduate and graduate courses for students who attend the University after 5 p.m. The student may take courses to update skills, to explore a new career, or to work toward a degree. A student may begin University studies as an unclassified student while determining academic interests and possibilities. An unclassified student may accumulate up to 24 hours of credit before being admitted to the University and declaring a major. For information about the degree programs available in the evening, contact the Office of Continuing Education, Regional and Summer Programs, 300 McFall Center.



The Evening Credit Program also offers special services to the student on campus during the evening. Course offerings are advertised each quarter and a special evening registration is held approximately four weeks before classes begin. Program advising is available during evening registration, or by appointment through the Office of Continuing Education, Regional and Summer Programs, 372-0181, or at the Center for Continued Learning, 194 South Main Street, 372-0363. The evening student can obtain necessary forms and parking stickers, register for courses, drop or add courses, and obtain general information about University procedures and programs. The Office of Continuing Education, Regional and Summer Programs is open from 8 a.m. to 7:30 p.m., Monday through Thursday, and from 8 a.m. to 5 p.m. on Friday.

Cooperative Education Program

The Cooperative Education Program offers graduate and undergraduate students an opportunity to integrate classroom theory with practical, on-the-

job realities through a planned series of work assignments with employers in business, industry, government, and the non-profit sector that alternate with formal course work. Employers assign students work which is relevant to each student's academic degree program or career interests, provide on-the-job supervision, evaluate the student's performance on a regular basis, and pay each student a fair wage. Each co-op assignment is carefully monitored by the University and is considered an integral component of the student's total learning experience.

Senior Adults Grants Program

The Senior Adult Grants for Education (SAGE) program is an opportunity for all Ohio residents age 60 and over to enroll in courses on a non-credit basis at BGSU without payment of instructional or general fees. To be eligible, persons must have lived in Ohio for at least one year prior to enrollment. Participants have access to all University classes and workshops, in which space is available.

ROTC (Reserve Officers Training Corps)

Air Force ROTC

The objective of the Air Force Reserve Officers Training Corps (AFROTC) program, offered by the Department of Aerospace Studies, is to provide college-level education that will qualify interested men and women for commissioning as second lieutenants in the United States Air Force in response to Air Force requirements. Emphasis is placed on the development of each student's sense of personal integrity, honor, individual responsibility, and potential as a leader and manager.

The AFROTC program consists of a General Military Course (GMC) offered to freshmen and sophomores, and a Professional Officer Course (POC) offered to selected juniors and seniors. Admission to the GMC is open to most U.S. citizens, male and female, between the ages of 14-26. The student must be regularly enrolled in the University and registered for a minimum of 12 academic hours. The student spends two hours per week in AFROTC courses, receiving one hour of credit each quarter. A uniform and AFROTC textbooks are provided without cost while enrolled in the GMC. The enrollment of alien students is governed by Air Force regulations.

Admission to the POC is on a competitive basis for those students who successfully complete the GMC. Requirements for selection to the POC include successful completion of the Air Force Officer's Qualifying Test (general knowledge and aptitude) and an Air Force medical examination. The student must be of high moral character and demonstrate outstanding leadership potential. A student who is accepted into the POC must complete a mathematical reasoning course and an English composition course prior to graduation. The student spends four hours per week in AFROTC courses, receiving three hours of credit each quarter. While enrolled in the POC, students receive \$100 per academic month (tax-free), free AFROTC textbooks, and individually tailored uniforms. Enrollment of alien students is governed by Air Force regulations.

A two-year program is available to students who have six quarters of any combination of undergraduate or graduate studies remaining. In addition to meeting physical requirements for selection, the student must attend a six-week summer field training camp prior to admission to the two-year program.

Students enrolled in aerospace studies may substitute these courses for physical education courses as prescribed by the individual colleges. AFROTC leadership training activities (leadership laboratory) are a part of each course and offer opportunities for practical leadership training and experience in a supervised environment.



Certain selected students are eligible for two-, three-, and four-year ROTC scholarships. Scholarships cover required fees and books, tuition, and pay the recipient \$100 per academic month (tax-free). A student who accepts an Air Force scholarship must complete an English composition course prior to entry into the POC, a mathematical reasoning course, and one quarter of an approved foreign language prior to graduation.

The student who successfully completes the AFROTC program and graduates from the University is commissioned as a second lieutenant in the U.S. Air Force and will be called to active duty in the Air Force during the year following graduation. The active duty commitment incurred is normally four years; however, students designated for pilot or navigator training will serve seven years and six years, respectively.

For additional information, contact the Department of Aerospace Studies.

Army ROTC

Army ROTC at BGSU provides an opportunity for men and women to participate in practical management and leadership activities designed to enhance the student's academic pursuits. Upon successful completion of the Army ROTC program, graduates may be commissioned as second lieutenants in the Active Army, the Army Reserve, or the National Guard. All ROTC courses are fully accredited.

A two-year and a four-year program are offered at BGSU. The traditional four-year program consists of a Basic and an Advanced Course. The basic program is normally

taken during the freshman and sophomore years. Students do not incur any military obligation while participating in the Basic Course. Upon successful completion of the program, students become eligible to enroll in the Advanced Course provided they have demonstrated officer potential, met physical standards, passed a general aptitude test, and been accepted for enrollment by the Military Science Department. The Advanced Course is normally taken in the last two years at BGSU and includes a six-week Advanced Camp held in the summer. Once accepted into the Advanced Course a student does incur a military obligation.

The two-year program is a special option program designed for students with prior military service or who are community or junior college graduates. It is also available to BGSU and transfer students who were not able to take ROTC during their first two years. Students interested in the two-year program should contact the Department of Military Science.

ROTC students may compete for scholarships, which pay for all university fees (tuition), books, and materials. ALL students who enter the upper division courses receive a monthly allowance of \$100. Students are also paid for attending summer camp. Also programs are available to assist qualified students in graduate study.

Students who are not U.S. citizens must obtain permission from the Military Science Department prior to enrolling in any ROTC courses. A \$2 per quarter activity fee is charged all students in the basic courses; students in the advanced courses must pay a \$3 per quarter activity fee.

Academic Support Centers

Center for Environmental Research and Services

The Center for Environmental Research and Services, 124 Hayes Hall (372-0207), coordinates and facilitates multidisciplinary basic and applied research related to environmental needs and environmental monitoring. Programs involve students as well as faculty in field, laboratory, and library studies. Special services and training also are provided for both on-campus and off-campus audiences through workshops, conferences, and special lectures.

Center for the Study of Popular Culture

The Center for the Study of Popular Culture is the national headquarters of the Popular Culture Association and the American Culture Association. The Center houses the Popular Press which publishes, among other works, *The Journal of Popular Culture*, *The Journal of American Culture*, and *The Journal of Popular Film and Television*. The Popular Culture Library has extensive collections of popular literature, both fiction and nonfiction. These include a variety of comics, serials, paperbacks, and magazines. The Music Library houses 70,000 LPs, 70,000 45 rpm discs, 30,000 78 rpm discs, and 800 cylinder recordings. Among its collections on tape are more than 600 hours of old radio shows.

Drosophila Stock Center

The Drosophila Stock Center serves as a resource center for genetic research on an international scale. The Center, which maintains the world's largest stock of *Drosophila* fruit flies, is engaged in the study of such areas as the effects of industrial and environmental chemicals on genetic mutation. *Drosophila* specimens from the Center are provided to laboratories throughout the world.

Management Center

The Management Center is the continuing education and consulting division of the College of Business Administration. It offers noncredit training and consulting services to organizations throughout the Midwest. Seminars are offered year-round on the BGSU campus. Subjects frequently covered include time management, supervision, sales management, data processing, and employment interviewing.

Center for Environmental Programs

The staff of the Center for Environmental Programs, 124 Hayes Hall (372-0207), is responsible for coordinating, facilitating, and monitoring a variety of academic programs relating to the environment. Four-year programs are available in the College of Arts and Sciences, the College of Education, and the College of Health and Community Services. In addition, one- and two-year programs in environmental health are available at the Firelands College. In cooperation with academic advisers in the various colleges, the Center staff assists students in selecting the program options that can best fulfill their goals and provides a comprehensive overview of all the options. An Environmental Resource Room (127 Hayes Hall) is maintained by the Center, in cooperation with the Center for Environmental Research and Services. It contains current periodicals, technical information, general environmental literature, and curriculum materials for environmental education.



Philosophy Documentation Center

The Philosophy Documentation Center collects, stores, and disseminates bibliographic and other types of information in philosophy. The Center's major publication is *The Philosopher's Index*, a subject and author index with abstracts of all major philosophy journals in English, French, German, Spanish, Italian and other selected languages, and other related interdisciplinary publications.

Center for Archival Collections

The Center for Archival Collections, located on the fifth floor of the University Library, is responsible for preserving and making available to researchers archival and manuscript material relative to northwest Ohio, Great Lakes shipping, and the University. Much of this is maintained through an extensive microfilm program, film program.

Among the materials available are local government records, newspapers, census records, photographs, and rare works concerning the 19 counties served by the Center, as well as photographs, books, pamphlets, and other Great Lakes materials. University Archives is responsible for the preservation and care of all BGSU institutional records deemed of historical value, including the *BG News*, yearbooks, and other University publications, as well as the records and correspondence of campus organizations and offices.

The Center also houses the Historic Preservation Office for northwest Ohio, which seeks to record and preserve historic sites, and to disseminate preservation information in an eight-county area.

Center for Continued Learning

Located at 194 South Main Street, Bowling Green, the Center for Continued Learning is a community-based extension of the Office of Continuing Education, Regional, and Summer Programs. The Center provides information, guidance, and support for persons thinking of returning to school, entering employment, changing careers, or becoming active in the community. Vocational and educational counseling, a career library, noncredit short courses, workshops, university referral, and outreach programs are among the services it provides to adults in northwest Ohio.

● Admissions

Freshmen

For admission to Bowling Green State University a freshman applicant must: 1. be a graduate of a senior high school approved or accredited by the department of education of the state in which it is located; or 2. have earned high school equivalency through the General Educational Development (GED) testing program (issued by the state Department of Education). A transfer applicant should refer to transfer admissions in this section of the catalog.

All non-native speakers of English are required to take the TOEFL test, or if unavailable, the Michigan Test. This requirement pertains to foreign students issued immigrant visas, to those transferring from another American college or university, to those (with English as a foreign language) coming from U.S. territories (e.g., Puerto Rico), and to those granted U.S. citizenship within recent years.

Applications for admission are accepted and processed each quarter of the academic year until the capacity of the freshman class is reached on the Bowling Green campus, and at the Firelands College campus, Huron, Ohio. High school students are encouraged to apply for admission beginning August 1 between their junior and senior years. Since housing accommodations and classroom facilities are limited, students are encouraged to submit their applications as soon after receiving them as possible. During the past several years admission to the Bowling Green campus has been closed to freshmen several months prior to the beginning of each quarter. To be considered for admission to the main campus, applications to the College of Business Administration must be submitted prior to December 15; applications to all other colleges should be submitted prior to February 1. Although the largest number of new students enters in September, it is possible to enter in the winter, spring, and summer quarters. Applications must be submitted 30 days prior to the beginning of each quarter, and all admission credentials must be received by the Office of Admissions 14 days prior to the beginning of each quarter, in order to allow sufficient time for processing, notification, academic advising, and registration for classes.



An application for admission may be obtained by writing to the Director of Admissions, Bowling Green State University, Bowling Green, Ohio 43403. The completed application must be submitted with a nonrefundable \$25 application fee. A transcript of the high school record (at least six semesters) is to be attached by a guidance counselor to the completed application, housing card, and application fee and then mailed to the Office of Admissions. If the freshman applicant has met high school equivalency requirements by completing the GED, both a transcript of the high school record and official results of the GED must be submitted.

Applicants who are unable to follow the above procedure should send the completed application, housing card, and application fee to the Office of Admissions directly. A form for the high school transcript will be sent to the student when a completed application is received. This transcript form should be completed by the high school counselor or principal.

Freshman applicants are required to submit results of either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) unless the applicant has graduated from high school three or more years before the intended date of enrollment in Bowling Green State University.

As a condition of admission to the University and reflecting the educational philosophy of the institution, all freshman- and sophomore-level students are required to live in University residence halls except for students commuting daily from the home of a parent, legal guardian, or spouse (commuters must live within 50 miles of Bowling Green), or unless they have attained 90 academic quarter hours or six quarters of campus residency on or before their first day of classes. See Housing, page 24.

For residency requirements for Ohio residents and nonresidents, refer to residency regulations under Fees and Charges, page 21.

Recommended high school subjects

Prospective students are strongly encouraged to complete the following minimum distribution of high school credits: four units of English, three units of college preparatory mathematics (for students planning to pursue a bachelor's degree program in business, four units of mathematics with at least two units of algebra are recommended), two units of social sciences, two units of science (one in a laboratory science), six units of electives. At least two units of a foreign language should be included by the student who plans to pursue a degree program in the College of Arts and Sciences.

Correspondence pertaining to the admission of an undergraduate student to all colleges of the University except the College of Musical Arts should be addressed to the director of admissions. Those interested in music should address correspondence to the dean of the College of Musical Arts.

Transfer Students

A transfer student who wishes to enroll at the University as an undergraduate uses the regular application for admission form. The application for admission must be accompanied by a nonrefundable \$25 application fee. The University requires a transcript of the applicant's high school studies from the principal or guidance counselor of the high school from which the student graduated, except in the case of a transfer student who has earned a baccalaureate degree from an accredited college or university. Transfer students are not required to submit American College Test (ACT) results.

An official transcript of credit is required from each college or university the student has attended. This transcript must be mailed to the director of admissions by the institution and is not accepted from the student. In addition, a transfer recommendation card must be completed by the personnel dean of the last institution attended and sent directly to the director of standards and procedures at Bowling Green State University. This card must be on file before formal admission can be granted. All admission credentials must be received by the Office of Admissions 14 days prior to the beginning of each quarter in order to allow sufficient time for processing, notification, academic advising, and registration for classes.

A student who has attended another accredited college or university and is in good standing is considered for admission:

1. if the student has earned an associate degree or at least 90 quarter hours with an accumulative grade point average equivalent to a 2.0 in a 4.0 system; or,
2. if the student has earned less than 90 quarter hours with an accumulative grade point average equivalent to a 2.5 in a 4.0 system.

A student whose accumulative grade point average is between 2.0 and 2.5 may be considered for admission upon petition. After the initial evaluation of the student's completed admission credentials, the Office of Admissions will send a petition form to the student. Upon return of this form, an admission decision concerning a student in the petition range (2.0-2.5) is made by the dean of the college to which the student is applying in consultation with the director of admissions.

A student who cannot meet the above transfer admission policies and who has not attended another college or university for a period of one or more years may be considered for probationary admission by petitioning the director of admissions.

A person receiving probationary admission needs to reduce quality point deficiencies by as many as four points in order to continue the following quarter. (See Grade Point Average, page 9.) If academic and residence hall accommodations are not available, probationary admission may be available to the main campus for the summer quarter only. Generally, probationary admission to the Firelands College is available for all quarters of the academic year.

BGSU's School of Technology offers two upper division (junior/senior) programs designed specifically for transfer students. A transfer student who has received an associate degree with a technical specialization from an institution accredited either regionally or by the Ohio Board of Regents may apply for admission to one of these programs. When applying for admission, the student must request acceptance of the associate degree. For more information on these technical programs, see page 95.

Some upper division (junior/senior) majors have additional transfer requirements. Transfer students should refer to the catalog description of their intended major program for additional requirements.

Transfer of credit

Credit earned at regionally accredited institutions or at publicly sponsored Ohio two-year institutions of higher education will be considered for transfer providing a grade equivalent to "C" or better was earned and a parallel course is offered by Bowling Green State University. (Note: Grades from transferred courses are not included in the accumulative grade point average or shown in the permanent record. However, they are included in calculating graduation with honors. See Academic Honors.)

An associate degree holder is accorded junior standing but the applicability of the transferred credit is dependent upon its relevance to the baccalaureate program pursued. A maximum of 96 quarter hours of credit up to the awarding of the associate degree may be transferred from a two-year institution or from all institutions attended.

Entering transfer students should submit an official transcript of credits from previous institutions attended to the Office of Admissions. Students currently enrolled at Bowling Green State University taking course work at another institution should submit a transcript of this work to the Office of Registration and Records. A course-by-course evaluation is made by the Office of Registration and Records, and copies are mailed to the student and the appropriate college advising office. Associate degree holders will receive their copies of credit evaluations from the college advising office at the time of their registration appointments.

Other Admission Categories**Foreign students**

Students from more than 50 foreign countries are enrolled at the University. Well qualified foreign students are welcomed. Their participation is eagerly sought to enrich educational opportunities for all students. Students from outside the United States interested in applying for admission as foreign students should write the Office of International Student Programs, Bowling Green State University, Bowling Green, Ohio 43403.

For admission purposes, applicants whose native language is not English are required to take an English proficiency test. The Test of English as a Foreign Language (TOEFL) is preferred. If opportunities for taking the TOEFL are not available, the University will accept results of the English Language Proficiency Test offered by the University of Michigan. Appointments to take the TOEFL must be arranged by the applicant in direct communication with the Educational Testing Service, Box 899, Princeton, New Jersey 08540.

Evening and part-time students

Prospective students who plan to take evening classes only (after 5:30 p.m.) can apply for admission to the Evening Program or, if space allows, enroll as unclassified undergraduate students (see next page) before seeking admission to the University.

Concurrent enrollment

Concurrent enrollment at Bowling Green State University and the University of Toledo allows a student with at least a 2.0 GPA to take courses at both universities and receive credit toward a degree. In order to be enrolled concurrently during a single quarter, a student must be registered for courses at both institutions. If a Bowling Green student takes all courses at Toledo during a single quarter, then that student must register at the University of Toledo as a transient student. See Transient Students, page 19.

Under this policy, the university that has most recently granted formal admission to the student is designated as the "home"



university. The other university is the "host" institution.

A student registering for 12 hours or more of course work, at least eight of which are at the home university, shall pay all fees to the home university. If a student registers for fewer than 12 hours, instructional, general, and nonresident fees are to be paid at the separate universities. (Special course fees are payable to the "teaching" institution.)

All course work taken under concurrent registration will be registered at the home university and will be considered by that university as resident credit. It will be included in the calculation of a student's grade point average. Seniors within the last 45 hours of graduation must receive permission from their deans before enrolling concurrently in courses at the University of Toledo.

Course work completed at the University of Toledo may not be used to delete "F"s and other low grades previously earned at Bowling Green State University in grade point average computation.

Concurrent enrollment forms are available through the Office of Registration and Records of either institution.

Unclassified degree holder

A student who has an earned degree in higher education and who wishes to enroll in undergraduate courses without pursuing another degree is classified as an unclassified degree holder. *An unclassified degree holder is required to apply for enrollment each quarter.* The only requirements for this type of student is official confirmation from the appropriate institution of the highest degree received and available classroom space.

Unclassified undergraduate student

A student who has not attended another college or university and who is not a candidate for a degree may be considered for enrollment as an unclassified undergraduate student. Unclassified students will register at a time announced by the Office of Registration and Records (approximately two weeks prior to the beginning of any quarter). *An unclassified student must apply for enrollment each quarter.*

Courses are offered on a space available basis after advanced registration has been completed. An unclassified undergraduate student is limited to 24 credit hours of work completed before applying for formal admission to the University. An unclassified student is not required to submit a high school transcript (although the student must be a high school graduate) or American College College Test results.

Readmission of former students

A student who has not been in continuous attendance during the regular academic year (excluding summer quarter) must complete the application for readmission form and submit it to the Office of Registration and Records. A copy of this form may be obtained by writing to the registrar. The readmission of a former student is based on past academic and personal records at the University and by the availability of facilities. A former student who has transferred to another college or university since the last enrollment at Bowling Green State University may be considered for readmission and must submit the application for readmission form and a complete

transcript and provide evidence of good standing, both personal and academic, at the institution last attended. A 2.0 cumulative grade point average (on a 4.0 system) is required.

Transient students

A student of another college or university who wishes to earn credits at Bowling Green State University may be enrolled as a transient student. The student must present an official statement, from the institution being attended that certifies eligibility to enroll at the "home" institution and that the credits earned at Bowling Green are acceptable as part of the program there.

The above principle applies to a student of Bowling Green attending another college or university as a transient student. Permission to attend other universities as a transient student is granted only to students who have at least a 2.00 cumulative grade point average at BGSU. Grades earned as a transient student at another college or university do not become part of the student's record at BGSU, but they are included in calculating all honors.

Transient students will register at a time announced by the Office of Registration and Records (approximately two weeks prior to the beginning of any quarter). *A transient student must apply for enrollment each quarter.* Courses are offered on a space available basis after advanced registration has been completed. A transient student is limited to 24 credit hours of work completed before applying for formal admission to the University. Transient students are not required to file a transcript of previous college credit.

Registration and Records

The Office of Registration and Records, 110 Administration Building, is responsible for each student's class registration and academic record. In addition, the schedule of classes is compiled by this office with the assistance of academic departments and colleges. The office is also responsible for commencement programs and receives applications for graduation. Other services provided are the evaluation of transfer credit, issuance of student identification cards, certification for benefits under the Veteran's Education and Social Security Acts, issuance of student transcripts, readmission of former students, admission of classified and transient students, certification for eligibility in athletics, membership in honor societies, clarification of residency, processing of credit-by-exams, and various other student-related functions.

Identification Card

Identification cards are provided to all fully admitted undergraduate students. Unclassified and transient students are not issued student identification cards except on request. Identification cards may be replaced if lost. A \$2 service charge is assessed. Spouse identification cards for husbands and wives of students give the spouse library and theatre privileges and are available for a \$10 service charge.

If the information on the identification card is not correct, the student should contact the Office of Registration and Records since the card is used for various identification purposes. Any cracked or defective card may be returned to the office for replacement at no charge.

The student identification card is good only when accompanied by a *validation card* provided by the University bursar upon full payment of quarterly fees and expenses. The validation card certifies both full payment and official registration. See Payment of Fees under Fees and Charges, page 23.

Transcripts of Credit

An official transcript of a student's record is issued only for transferring credits to other colleges and universities and for transmitting information to certifying agencies and employers. An official transcript is issued *only at the written request* of the

student. A charge of \$2 is made for each transcript and should be included with the request. A transcript is not released for a student who is delinquent in any financial obligation to the University. Requests should be submitted at least 24 hours in advance to the Office of Registration and Records, 110 Administration Building (104 East Building at Firelands).

Transcripts from other institutions that have been presented for admission or evaluation become part of the student's permanent academic file and are not returned nor copied for distribution. Students desiring transcripts covering work completed elsewhere should request them from the institutions concerned.

Academic Load

A full-time student normally should be registered for 15 to 16 hours per quarter. The academic load of a regular undergraduate student should not be less than 12 hours at any time nor more than 18 hours without contacting an academic adviser in the college in which the student is enrolled. A full-time undergraduate is defined as a student registered for 12 quarter hours.

Registration Schedule

Since late entrance is a handicap to academic achievement, every student is expected to register for classes during the time announced for registration. Continuing students receive registration materials in the mail during the fourth week of the preceding quarter. The registration requests are received at the Office of Registration and Records during the fifth week, and students are notified of their schedules by the eighth week of the preceding quarter. (This does not apply to Firelands students.)

Anyone who fails to take advantage of the advance registration system is allowed to register up until the first day of classes without being charged a late fee. Any student going through this open registration, however, is limited to requesting only those classes that still have spaces available.

No student entering after the end of the first week of a quarter is permitted to carry a full program of courses without the permission of the dean of the college in which the student is enrolled.

Drop/add

After the registration period has been completed, all changes must be processed at the Office of Registration and Records in accordance with the policy of the college in which the student is enrolled. An undergraduate may enroll in a course within seven calendar days from the beginning of classes in any quarter. After this time, a student may add a course only with permission of the college dean.

A student may change the grading option (graded or S/U) for a specific course only during the first seven calendar days of a given quarter. Fourteen calendar days are allowed for a student to withdraw from a class at the Office of Registration and Records. After these dates, exceptions may be granted only by the dean of the student's college.

An undergraduate who drops a course during the third through the sixth week of a quarter receives a grade of "WP" (withdrawn passing) or "WF" (withdrawn failing) according to the student's standing in the course. A grade of "WF" is assigned to courses dropped after the sixth week of a quarter and to courses that the student ceases to attend without permission. Any student terminating attendance in an S/U course without officially dropping the course or withdrawing from the University will receive a "WF."

See change of registration charge under Fees and Charges, page 22.

Audit

A student who wishes to attend a class without receiving credit for it may register to audit that course. A per-hour instruction fee is charged as if the student had registered for the course for credit. Audit (no credit) registration must be indicated for the appropriate course(s) before the first day of classes. A student may not change from audit to credit registration, and vice versa, during the given quarter.

Fees and Charges

Unless otherwise noted, fees and charges printed in this catalog were those in effect for the 1980-81 academic year.

Main Campus

State appropriations currently provide less than one-half of the cost of instruction. The remainder is financed by student fees and other charges and contributions. The General Assembly appropriates no funds for meals and rooms or for various student services and activities provided by the University. Such services and activities are financed from student fees and charges.

A student who is an Ohio resident and is enrolled for 11 or more credit hours pays the following in fees:

Instructional Fee	\$306/quarter
General Fee	\$96/quarter
Total	\$402/quarter

A student who is an Ohio resident and is registered for 10 credit hours or less pays \$40.50 per credit hour.

A student classified as a nonresident who is enrolled for 11 or more credit hours pays the following in fees:

Instructional Fee	\$306/quarter
General Fee	\$96/quarter
Nonresident Fee	\$509/quarter
Total	\$911/quarter

A nonresident enrolled for 10 credit hours or less pays a fee of \$50 per hour in addition to the \$40.50 per credit fee for a total of \$90.50 per credit hour.

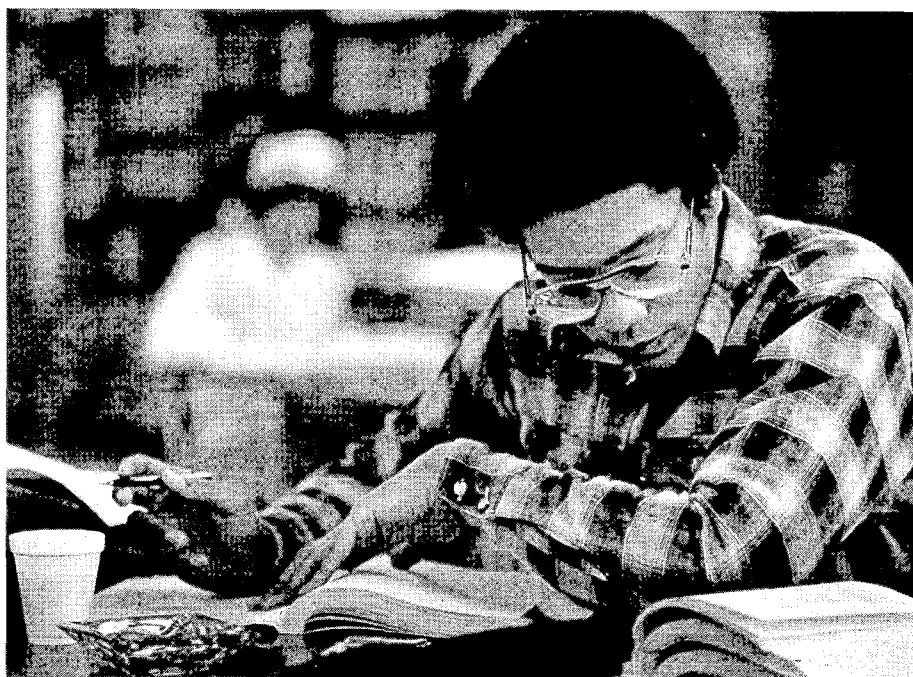
If a student drops a course which reduces the fee status from full-time to part-time, the hourly rate schedule will be applicable to the remaining hours.

The instructional fee, supplemented with state appropriations, finances the instructional programs of the University. The general fee finances the many student services and activities offered on campus.

A previously enrolled student may be denied readmission after payment of fees for several reasons, one of which is failure to maintain a satisfactory academic standing. In such cases a full refund is made of fees paid for that academic term.

The Board of Trustees reserves the right to make any changes or adjustments in fees or charges when such changes are deemed necessary.

See Housing, page 25 for room and meal plan charges.



Firelands

The Ohio student who attends the University's Firelands College and is enrolled for 11 or more credit hours pays the following in fees:

Instructional Fees	\$306/quarter
General Fee	\$34/quarter
Total	\$340/quarter

The Ohio student who attends the Firelands College and is enrolled for 10 credit hours or less pays a fee of \$34 per credit hour.

A nonresident student attending the Firelands College and enrolled for 11 or more credit hours pays the following:

Instructional Fee	\$306/quarter
General Fee	\$34/quarter
Nonresident Fee	\$509/quarter
Total	\$809/quarter

A nonresident student attending Firelands and enrolled for 10 credit hours or less pays a nonresident fee of \$50 per credit hour in addition to the \$34 per hour credit fee.

During any quarter when a student is registered for a combination of main campus (including extension) and branch or resident credit center courses, fees are determined as follows: if the number of

main campus credit hours equals or exceeds the off-campus credits, the main campus fees are charged for all courses. Off-campus rates apply when branch and resident credit center credit hours exceed the main campus credits.

Nonresident Fee Regulations

A student classified as a nonresident of Ohio for fee purposes who is entering or reentering the University is assessed a nonresident fee of \$50 per quarter hour up to a maximum of \$509, in addition to the instructional and general fees.

The responsibility of indicating proper residence at the time of registration is placed upon the student. If there is any question regarding the student's state of residence, the Office of Registration and Records, 110 Administration Building, which may refer the matter to the Residence Status Review Committee for official action, should be contacted. Any student who registers improperly with respect to legal residence under the rules identified below shall be required to pay all applicable nonresident fees. Students who fail to pay this fee within 30 days after having

been notified of the assessment may have their registration in the University automatically nullified.

The University reserves the right to make a final decision in any case of disputed residence for the student as a condition of admission. In determining the student's proper residence, University officials use the following regulations as approved by the Ohio Board of Regents on December 20, 1977.

C. General residency

The following persons shall be classified as residents of the State of Ohio for subsidy and tuition surcharge purposes:

1. Dependent students, at least one of whose parents or legal guardian has been a resident of the State of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

2. Persons who have resided in Ohio for all other legal purposes for at least 12 consecutive months immediately preceding their enrollment in an institution of higher education and who are not receiving, and have not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.

3. Persons who reside and are gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who are pursuing a part-time program of instruction at an institution of higher education.

4. Persons who have been reclassified as residents under the provisions of Section D7 of this rule.

D. Specific exceptions and circumstances

1. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.

2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

3. Any alien holding an immigration visa shall be considered a resident of the State of Ohio for state subsidy and tuition surcharge purposes in the same manner as any other student.

4. No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.

5. A dependent person classified as a resident of Ohio who is enrolled in an institution of higher education when his or her parents or legal guardian remove their residency from the State of Ohio shall be considered a resident of Ohio for these purposes during continuous full-time enrollment and until his or her completion of any one academic degree program.

6. In determining residency of a dependent student, removal of the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph C1 of this rule.

7. Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency in Ohio for all other legal purposes, may apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes. Should such person present clear and convincing proof that no part of his or her financial support is, or in the preceding 12 consecutive months has been, provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this Rule shall be made by the institution which may require, among other things, the submission of information regarding the sources of a student's actual financial support to that end.

8. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.

9. A person who is transferred by an employer beyond the territorial limits of the 50 states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

10. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

Definitions

For purposes of this Rule:

1. A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code: provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.

2. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.

3. An "institution of higher education" as used in this rule shall mean any university, community college, technical institution or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the State of Ohio.

Summer School Fees

A student who is a resident of Ohio and who is enrolled for 11 or more credit hours for the full summer quarter pays the following:

Instructional Fee	\$306
General Fee	\$94
Total	\$400

A student who is a resident of Ohio and who registers for 10 credit hours or less pays \$40 per credit hour.

A nonresident student who is enrolled for 11 or more credit hours pays the following:

Instructional Fee	\$306
General Fee	\$94
Nonresident Fee	\$509
Total	\$909

A nonresident of Ohio enrolled for 10 credit hours or less pays a nonresident fee of \$50 per credit hour in addition to the \$40 per hour credit fee for a total of \$90 per credit hour.

Graduate Fees

For complete information regarding graduate fees consult the *Graduate Catalog*.

Other Fees, Charges, and Deposits

An **application fee** of \$25 must be paid at the time the application for admission is submitted by a new undergraduate student. This fee is nonrefundable.

A **change of registration charge** of \$3 is made for any change in registration made on or after the first day of classes at the Office of Registration and Records unless the charge is waived by the dean of the college in which the student is enrolled.

A **late payment charge** of \$5 is made for each day including Saturdays and Sundays that a student is late in paying fees at the opening of a quarter or summer term.

An **automobile registration charge** of \$20 a year (September 1 through August 31) is required of each student who registers an automobile with the Parking Services Office. Each automobile on campus must be registered and its decal displayed in accordance with instructions. Firelands students are required to register their automobiles at Firelands where the registration charge is \$5 per year.

A **credit by examination charge** of \$15 is assessed for each special examination.

A **proficiency examination charge** of \$5 is made for special examinations in typing and shorthand which are administered by members of the business education staff for a person seeking to qualify for civil service or other positions.

A **transcript charge** of \$2 is made for each transcript of credits.

A **student teaching laboratory fee** of \$36 is required during the quarter in which student teaching is done.

Any student may register for **audit credit** (no credit) in any course offered in the current schedule of classes. Fees for audit hours will be charged at the rate of the already established University fee structure equivalent to the regular credit hours of registration.

An **excess credit fee** of \$15 is charged beginning with the 19th credit hour taken each quarter and continuing for every hour thereafter.

Special **music fees** will be charged those participating in the following courses:

Applied music private lessons	\$30/credit hour
Applied music classes	\$15/credit hour
Music major equipment fee	\$10/quarter
MUED 402	\$15/course
Tools for piano tuning	variable

A student enrolled for applied music has access to practice rooms and equipment without charge (other than above) in accordance with the schedule and regulations determined by the College of Musical Arts.

A **driver education fee** is charged, \$15 for students in HED 362 and \$10 for students in HED 462.

A **physical education fee** is charged those participating in the following courses at the rates indicated:

Billiards	\$7.50
Bowling	\$12.50
Beginning golf	\$5
Intermediate golf	\$10
Advanced golf	\$20
Ice skating, curling, hockey	\$10
Scuba diving	\$10
Skiing	\$65
Horsemanship (western)	\$100
Horsemanship (English)	\$100

The student is held responsible for apparatus lost or damaged and for materials wasted in laboratory classes. The student pays for all materials used in making articles or items that become personal property.

The Board of Trustees reserves the right to make any changes or adjustments in fees or charges when such changes are deemed necessary.

Payment of Fees

All fees and charges are payable in advance of the quarter for which the student is enrolled. The final date for payment of fees for each quarter is the last weekday before the official date for the beginning of the quarter. A student paying fees after the last day designated for this purpose at the opening of a quarter (including summer) is assessed a *late payment fee* of \$5 for each late day including Saturdays and Sundays to a maximum of \$25.

Fees are payable at the Bursar's Office on the first floor of the Administration Building between 8 a.m. and 5 p.m. Checks and money orders are accepted if they are made payable to Bowling Green State University for the exact amount required for



the payment of all fees. At Firelands, fees are payable at the Office of Registration.

For a student desiring to use a credit card system, the Master Card plan is honored by the University.

Refund of Fees

In the case of voluntary withdrawal of a student from the University in any quarter, fees, except for the application fee, are refunded on the following basis: during the calendar week in which classes begin, 90 percent; during the second calendar week, 80 percent; during the third calendar week, 60 percent; during the fourth calendar week, 40 percent; after the fourth week, no refund. A student withdrawing under discipline forfeits all rights to the return of any portion of fees. However, in the event of academic dismissal, all monies prepaid for a quarter are refunded in full. This schedule pertains to instructional, general, and nonresident fees (where applicable); a separate refund schedule for room and meal plan charges is outlined in the housing contract-acceptance agree-

ment. No deduction is granted because of late entrance.

If a student drops a course which reduces the fee status from full-time to part-time, the hourly rate schedule will be applicable to the remaining courses. Any refund is subject to the percentage refund schedule.

In a change of program involving the dropping of a course in which a special course fee has been paid, the fee is refunded in accordance with the schedule given in the preceding paragraph unless the dean of the college in which the student is enrolled authorizes different action. Refunds normally take a minimum of four weeks to be processed.

Charge Cards

Personal charges at the University can be paid not only by check or cash but also by Master Card. Due to a significant cost increase in processing Visa, the University is no longer able to accept payments in this way. Any questions should be directed to the Bursar's Office.

Housing

Residence Halls

Bowling Green is primarily a residential University, and more than 8,000 undergraduate students live in residence halls.

University residence halls provide a physical environment designed to further the academic, cultural, and personal development of the resident students. A wide range of living options is available to students and a wide variety of educational and social programs are offered.

Undergraduate students are required to reside in University-owned living units as a condition of enrollment unless they are commuting daily from the homes of their parents, guardian, spouse, or unless they have attained 90 earned academic hours and/or six quarters of campus residency on or before the first day of classes for fall quarter. For the purposes of this regulation, a home is defined as the actual and regular place of residence in the community in which the parent, guardian, or spouse is eligible to register to vote. A guardian is defined as a person awarded legal guardianship by a court of competent jurisdiction. The housing acceptance agreement is a contract for the entire academic year. A student must be in compliance with the University housing policy as a condition for applying to be an exception to the policy.

Accommodations in University residence halls are available to any University student regardless of race, religion, creed, color, national origin, or handicap. The University expects landlords of off-campus accommodations to practice this same nondiscriminatory policy.

The University Housing Office, 440 Student Services Building (372-2011), is responsible for the assignment of all students to campus housing accommodations. This office processes all housing applications and roommate requests for assignment to the 21 residence halls and 29 sororities and fraternities on campus. Issuance and cancellation of University meal coupons are also coordinated through this office.

The Office of Residence Life, 425 Student Services Building (372-2456), is responsible for the operation, staffing, and programming of all campus living units, including sorority and fraternity houses. A trained residence hall staff including un-

dergraduate resident advisers (R.A.'s) are present to help students derive the fullest possible benefits from the residence life experience.

Housing Regulations

Responsibility for personal effects

During a student's residence in a hall, every effort is made to provide adequate supervision. However, the University cannot assume responsibility for loss or damage to personal effects of the student or guests of the University. If a student's parents have a blanket homeowner's insurance policy, the student's personal effects may be listed and covered in such a policy.

Generally, each room is completely furnished except for linens, pillows, blankets, and personal toiletries. A linen rental service is available to the student.

For detailed information regarding services and accommodations available contact the University Housing office.

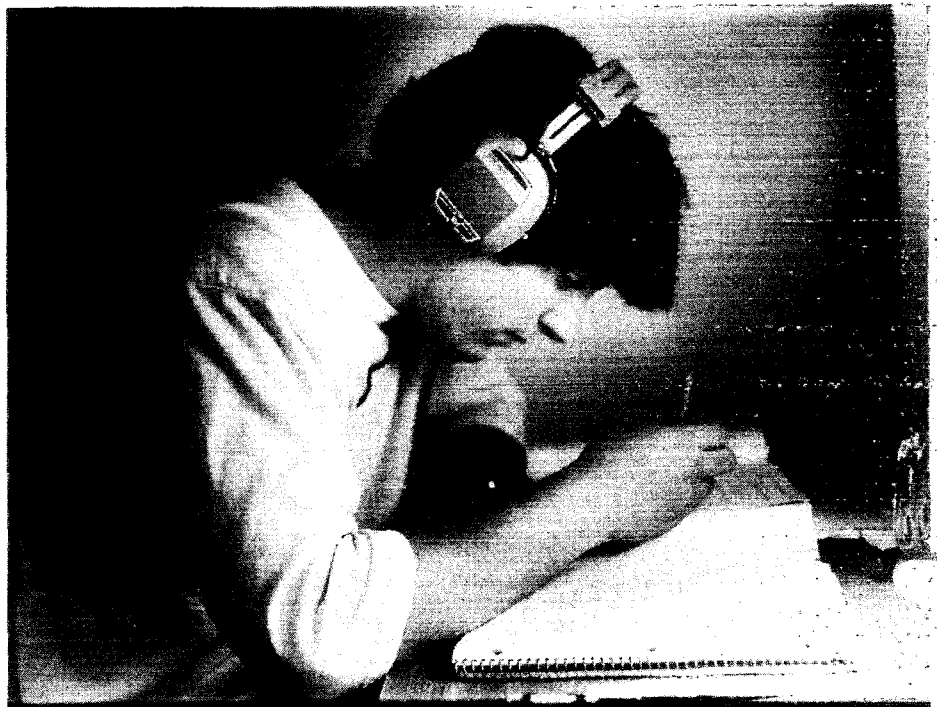
Occupancy of rooms

Each student is required to vacate and remove personal belongings from the residence hall within 24 hours after the close

of final examinations for the spring quarter, except for the student who receives a degree at the June Commencement. Such a student may remain in the University residence up to a designated hour on Commencement Day.

A student in good standing with the University is not required to clear the room of possessions at the close of the fall and winter quarters unless that person has failed to acquire a paid housing reservation for the succeeding quarter. A resident who has not paid for additional accommodations, however, is required to vacate the room and remove personal belongings within 24 hours after the close of quarter examinations.

The University undertakes at all times to maintain pleasant living conditions in all its residence halls, and the right is reserved to remove an occupant at any time for violations of University and/or residence hall policies, rules, and regulations. Anyone found residing in University facilities who has not paid for accommodations, who is not a lawful resident of that facility, or who is found in a closed building may be charged with trespassing.





Vacation periods

During the vacation periods, the residence halls are not open to students. A student remaining over the Thanksgiving and spring recesses or between quarters needs to make special arrangements for off-campus housing during these periods. The University Housing Office can assist in making these arrangements. The University reserves the right to assign, inspect, maintain, and make repairs in residences any time during the school year.

Change of university address

If, for some reason, a student should find it necessary to change his or her campus address, such a change must be registered and approved by the University Housing Office in advance of the proposed move.

Off-Campus Housing

The Student Consumer Union, 405 Student Services Building, maintains a list of rooms and apartments that are recognized as adequate in terms of health, safety, and nondiscriminatory standards. It also maintains a mediation service to help resolve tenant-landlord disputes, and a counselor is available to assist off-campus students with any difficulties they may have.

A student who lives off campus does so accepting individual responsibility. The University does not undertake to provide social and educational opportunities or the supervision furnished in University residence halls to students residing in off-campus housing. A contractual arrangement exists between the student and the landlord exclusive of the University.

As a condition of enrollment, an off-campus student is expected to register his

or her correct community address with the Housing Office before the payment of fees.

Room and Meal Plan Charges

A student who wants to live on campus must apply for housing and sign a residential contract in the spring before the opening of the fall quarter. Dates and procedures for payment are outlined in the contract.

Four housing plans, with eight different rates, are available to students regardless of class rank as long as space is available. Priority of assignments is given to continuing upperclass students with seniors, juniors, sophomores, and incoming freshmen assigned in that order. Returning former students are assigned with new incoming students.

Plan I includes Conklin Hall and McDonald North. Students living in these residence halls are not required to purchase the meal plan. Double occupancy rate is \$322 per quarter or \$966 per academic year. The single occupancy rate is \$417 per quarter or \$1,251 per academic year. These rates are for room only.

Plan II covers these residence halls: Kreischer, Harshman, McDonald East and West, Founders, Rodgers, Kohl, Prout, and Alpha Phi Alpha. This rate also applies to students living in Conklin and McDonald North Halls who are taking part in the basic meal plan program. Multiple occupancy rates, including the basic meal plan, are \$547 per quarter, or \$1,641 per academic year. Single occupancy, including the basic meal plan, is \$642 per quarter, or \$1,926 per academic year.

Plan III applies only to Offenbauer East and Offenbauer West. The rate for double occupancy, including the basic meal plan, is \$600 per quarter, or \$1,800 per academic year. A single occupancy room with the basic meal plan is \$700 per quarter, or \$2,100 for the academic year.

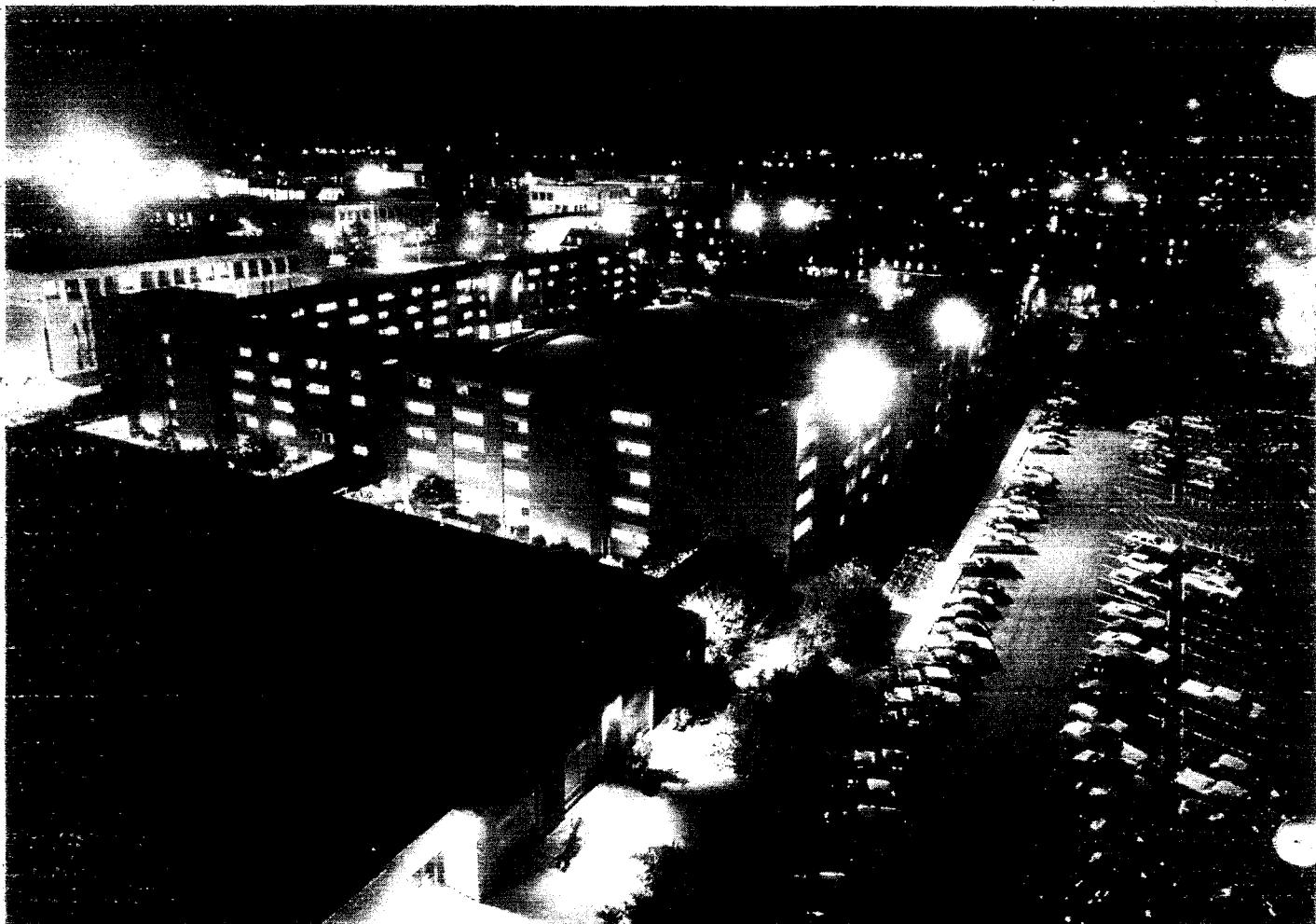
Plan IV is for the room-only rent for fraternities, sororities, and the French House. These rates are \$341 per quarter, double occupancy (\$1,023 per academic year), and \$436 per quarter, single occupancy (\$1,308 per academic year). Since most Greek houses operate their own dining facilities, the University collects only room rent, leaving the various groups to collect their own meal plan charges.

These are suggested rates for the 1981-82 academic year only and are subject to change as economic conditions warrant.

Additional information regarding living options and rates can be obtained from the University Housing Office, 440 Student Services Building, 372-2011.

Payment schedule

Since arrangements for residence on campus must be made before the opening of fall quarter and the University wishes to accommodate as many students as possible, a forfeiture schedule for late cancellations is maintained. This schedule appears in the acceptance agreement which is provided when the residence hall application is accepted. The acceptance agreement should be read thoroughly by both student and parents or guardian and retained for future reference. A residential contract card accompanies the agreement. It must



be signed and returned with the initial payment, indicating acceptance of the provisions of the agreement. Payment may be made in full for the entire academic year or in accordance with a deferred plan described in the acceptance agreement. The initial payment date appears on the residential contract card.

Refunds

Adherence to the payment schedule is a prerequisite for admission. Should it be necessary to withdraw from the University after the acceptance agreement has been executed, the refund schedule outlined in the agreement is followed.

For information regarding other fee refunds see Fees and Charges, page 23.

Meal plan

The flexible meal coupon system gives students a choice of what, when, and where they may eat and of how much they may select at each meal. There are six dining halls located on campus offering five to eight entrees at each meal, special hot and cold sandwich lines, and a salad bar at lunch and dinner. The "Towers Inn" (steak house) and "Strawberry Patch" (pancake house) are seated facilities catering to coupon customers. Two snack bars are also located on campus for student convenience.

Meal plan rates listed are 1981-82 rates and are subject to change as economic conditions warrant. Three meal plans are available. In *Plan A*, for the basic charge of \$225 per quarter, a student receives four books of coupons, which will meet less than 50 percent of an average, college-age person's daily food needs. Four additional plans are available. In *Plan B*, \$270 per quarter, a student receives five books which will meet approximately 65 percent of the average, college-age person's daily food needs. *Plan C*, \$315 per quarter, and *Plan D*, \$360 per quarter, are the plans recommended by the Residence Dining Services staff as best meeting the nutritional needs of the majority of college students. *Plan E*, \$405 per quarter, is designed primarily for athletes and for people who enjoy the restaurant dining experiences. All coupon books beyond the fourth book are offered at a 20 percent discount.

Coupons are treated the same as cash and should be handled accordingly. In each book there are \$56.25 worth of coupons, which range in value from five cents to one dollar and which are used to pay for each item a student selects from the menu. Additional coupon books may be purchased at the Bursar's Office.

To obtain coupon books a student must pick up an authorization card at the front

office of the residence hall. The authorization card must then be presented at the proper cafeteria with two pieces of identification. Cafeteria personnel will accept validation cards, drivers licenses, or University identification cards as I.D.'s. To help insure that a coupon book will be returned in case it is lost, the student should write his or her name, address, and telephone number on each book.

If a student finds that the meal coupons cannot be used each quarter, the option is available of selling the coupons to other students. Because of fixed operating costs, the University cannot refund unused coupons each quarter. Guests are welcome in the dining halls and their meals can be purchased with coupons or cash.

The University Food Service provides a large food selection to give students the opportunity to choose a balanced diet to their liking. Students on special diets can be accommodated if a statement from a physician indicates the type of diet to be followed and supplies the Food Service staff with a copy of the diet.

Students have the opportunity to contribute ideas to the Food Service management. Questions should be directed to individual dining hall managers or the director of Residence Food Service, 200 Centrex Building, 372-2891.

Financial Aid

All types of financial aid are coordinated through the University's Office of Financial Aid and Student Employment. The staff is also available for financial aid counseling.

Each student and the student's family are responsible for a reasonable contribution to the cost of the student's education. However, students may require financial assistance. Financial aid is generally limited to full-time students, but part-time undergraduate students may be eligible for Pell (Basic Education Opportunity) Grants.

To apply for financial aid, students must file a BGSU application for financial aid and a financial statement. BGSU applications for financial aid are available in the Office of Financial Aid and Student Employment, Admissions Office, and the Firelands Financial Aid Office. A financial statement may be obtained from high school guidance counselors or any of the above offices.

Prospective freshmen who complete the forms by February 1, and are fully admitted to BGSU by March 1, will be notified in April about their financial aid awards. Late applications will be considered separately. Awards are made depending on the availability of funds and the terms and conditions of controlling legislation, regulations, and policies.

For more information about the types of financial aid and eligibility criteria, see the financial aid brochure available from the Office of Financial Aid and Student Employment or from the Admissions Office.

Assistantships

Qualified juniors and seniors may apply to individual departments to become undergraduate assistants. Upperclass students are also employed as residence hall advisers. Information about residence hall advisers is available in the residence halls or in the Residence Life Office.

Employment

A variety of student employment opportunities are available both on and off campus. The Student Employment Program Office (460 Student Services Building) posts job openings and refers applicants to interviews with prospective employers. Campus employment is available to undergraduate students who are enrolled for

at least six credit hours per quarter. Students typically work as clerks, custodians, receptionists, typists, and food service employees. A listing of summer job opportunities is also available from the Student Employment Program Office.

Students in need of financial assistance may be eligible for the College Work-Study Program, financed partially by a federal grant. A student's eligibility for this program is determined by the Office of Financial Aid and Student Employment.

Grants

Pell (Basic Educational Opportunity) Grant

The Pell Grant program is the largest of the federal grant programs. It is designed to assist needy students to continue their education beyond high school and to provide a base of financial aid. The amount of the grant is determined by the student's need and the cost of attendance. Graduate students are not eligible. Students should indicate that they wish to be considered for the Pell Grant when filing the financial statement.

Ohio Instructional Grant

Students must apply for this grant by filing an OIG application which is available from high school guidance counselors, the Office of Financial Aid and Student Employment, or the Ohio Board of Regents (30 East Broad Street, Columbus, Ohio). Students must be Ohio residents and enrolled for at least 12 credit hours.

Supplemental Educational Opportunity Grant

Students who file the required forms are considered for this federal grant, which is awarded to students with demonstrated financial need.

Talent Grants-in-Aid

Talented students in art, athletics, music, or speech may be eligible for these University-administered grants. Application should be made to the specific department.

Loans

Guaranteed Student Loans

These are long-term loans with 9% interest rates. Dependent students may borrow up to \$12,500 during their undergraduate years. Interest on the loan is paid by the federal government while the student is in school. Repayment begins six months after the student leaves the University. Application is made directly to a bank or other lending institution that participates in the GSL program.

National Direct Student Loans

These are long-term loans with 4% simple interest rates. Students may borrow up to \$6,000 as an undergraduate. Interest on the loan is paid by the federal government while the student is in school. Repayment begins six months after the student leaves the University. Students who file the required financial aid forms are considered for this loan program.

Short-Term Loans

The University has funds available for short-term loans to students for educational expenses and personal emergencies. Emergency loans are available up to a maximum of \$75 for a period of one month without interest. A student may receive a larger loan, to be repaid within the quarter it is received, at 4% simple interest. These loans are not available to first-quarter freshmen. Application is made at the Office of Financial Aid and Student Employment, 450 Student Services Building.

Scholarships

A limited number of academic scholarships are available to undergraduate students, regardless of need, who have outstanding scholastic records. Other scholarships are awarded on the basis of academic achievement and need. Information on scholarships may be obtained in each of the college offices, the Office of the Dean of Students, and the Office of Financial Aid and Student Employment.

Organizations and Activities

Social, cultural, and athletic programs are sponsored by various student organizations and academic departments of the University to round out the education of the student. An opportunity for self-government is afforded each student through an elected representative or through the student's election to office. Many academic departments and student groups provide additional opportunities for learning through lectures, seminars, and activity programs.

Each voluntary student organization is considered to be a representative agency of student life in its area of interest and activity.

The Office of Student Organizations and New Student Programs, 405 Student Services Building (372-2843), is the center for student body government, campus organizations, the coordination of social programs, and Freshman Pre-Registration and Orientation, all of which are designed to aid the total development of the student at Bowling Green.

Organizational Regulations

Students are free to organize and join associations to promote their common interests providing these associations are organized for legal purposes and do not conflict with the University's educational objectives.

The Organizations Board of the Student Government Association will, subject to review by the Student Senate, register social, service, special interest, and professional organizations based on the following policy:

1. Affiliation with an extramural organization will not of itself disqualify a student organization from institutional registration.

2. Campus advisers who are members of the faculty or staff are required for any student organization receiving University funds. They are encouraged for all other organizations. Campus advisers may counsel organizations in the exercise of responsibility, but they will not have authority to control the policy of the organization.

3. Student organizations will be required to submit a statement of purpose, criteria of membership, rules of procedures, and a current list of officers. They will not be required to submit a membership list as a condition of registration.

4. Organizations, including those affiliated extramurally, must be open to all students without respect to race, creed, national origin, age, sex, political views, or handicap.

For a current list of campus organizations and activities, contact the Office of Student Organizations and New Student Programs, 405 Student Services Building, 372-2843.

Student Government

An agency through which a student may participate in University administration and government is the Student Government Association, which includes the executive officers and 18 student senators. These groups function under a definite set of responsibilities and authority delegated by the president of the University and the

University Board of Trustees and outlined in a constitution adopted by a majority vote of the student body.

The Student Government Association provides the student with a wide range of opportunity for responsible participation in the government of the University community and gives the University the advantage of student views and experience in arriving at the soundest possible policies and practices with respect to issues relating directly to each student enrolled in the University. All councils and boards of the Student Government Association have available the advice of faculty members or administrative officers of the University.

In addition to the Student Government Association, the qualified student may serve on other policy-determining and administrative councils and committees of the University.



University Activities Organization

All students may participate in planning and organizing social, cultural, and educational programs for the University community through the University Activities Organization.

The entire organization is involved with such events as Homecoming, the University's Mardi Gras celebration, and Good Times Weekend. There are 14 committees: Administrative, Campus Films, Side Door Entertainment, Exhibits, Games, Mini-Courses, News and Views/Lectures, Outdoor Recreation, Performing Arts, Publications, Publicity, Public Relations, Special Events, and Travel.

The University Activities Organization provides students with the opportunity to organize functions affecting the entire student body while developing leadership skills.

Athletics

Intercollegiate Athletics

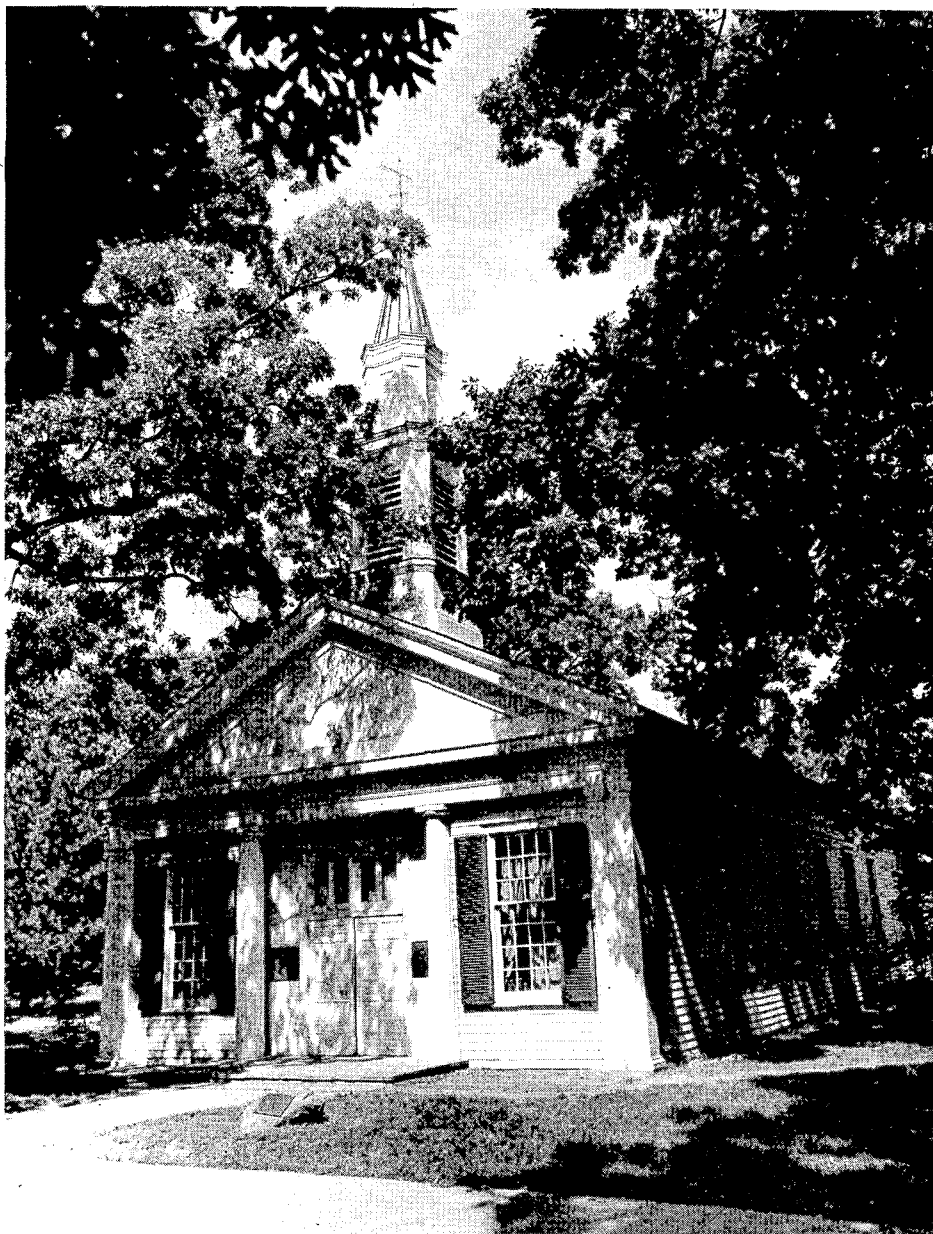
Participation and excellence are primary goals of Bowling Green intercollegiate athletics. As part of the largest total-sports program in the Mid-American Conference, nearly 1,000 men and women compete for championship recognition each year on 24 varsity teams.

Men's and women's teams exist in basketball, cross country, golf, swimming, tennis, and indoor and outdoor track. Men compete in football, baseball, hockey, soccer, and wrestling, while women compete in gymnastics, field hockey, lacrosse, volleyball, and softball.

Club sports include cricket, fencing, gymnastics, hockey, karate, lacrosse, orienteering, riflery, rugby, sailing, skating, skiing, soccer, synchronized swimming, table tennis, volleyball, water polo, and weight training.

The University is a member of the National Collegiate Athletic Association (NCAA), the Association of Intercollegiate Athletics for Women (AIAW), and the 10-university Mid-American Conference (MAC). Bowling Green competes regularly with nationally prominent teams from other major conferences.

To be eligible for intercollegiate athletic competition, a student must meet various academic standards established by the University, the NCAA, AIAW, and MAC, as appropriate. When a student becomes involved on any of the teams that compete in intercollegiate contests, it is assumed that consent to do so has been received from the student's parents or guardian. Every precaution is taken to safeguard the health of the student athlete, and a physician is generally present at intercollegiate contests in the more rigorous sports. Although the University carries a restricted type of insurance on team members, it will pay only the cost of first-aid treatment in the event of injury.



Intramural and recreational sports

The intramural and recreational sports program offers a wide variety of activities for men and women including badminton, basketball, bowling, golf, handball, hockey, racquetball, soccer, softball, swimming, touch football, and volleyball. Many of these are offered as coed sports. Information regarding these and other activities may be obtained at the intramural office, located in 201 Memorial Hall, and the Student Recreation Center from 8 a. m. to 5 p. m. daily.

Athletic facilities

Athletic facilities at the University include: an 18-hole golf course; an ice arena; 25 outdoor tennis courts; the North and South gymnasiums; 5,200-seat Anderson Arena; 23,000-seat University Stadium; Steller Field, which seats 2,000 for baseball; Whitaker Track; numerous activity and practice fields; and the new Student Recreation Center (see below).

Student Recreation Center

The Student Recreation Center, with its two swimming pools, 14 handball/racquetball courts, running track, saunas, and courts for basketball, volleyball, tennis, and badminton, among other facilities, is the focal point for campus sports and recreational activity.

All registered full-time students may use the center as often as desired. A usage fee is included in the general fee paid each quarter. Part-time students must pay a usage fee of \$31 per quarter. Special plans for spouses and children of students are available. For more information, contact the center or consult the Student Recreation Center brochure.

Firelands College Organizations

See page 118 for a description of organizations and activities at Firelands College.

University Services

Academic Services

Bowling Green State University provides a variety of academic services to assist students in their educational development.

The Reading Center, 576 Education Building, provides diagnostic testing and counseling in reading and gives instruction and practice in reading improvement. Such instruction and practice are available through self-referral or by enrolling in EDCI 091 (developmental reading.) Courses in reading are offered each quarter.

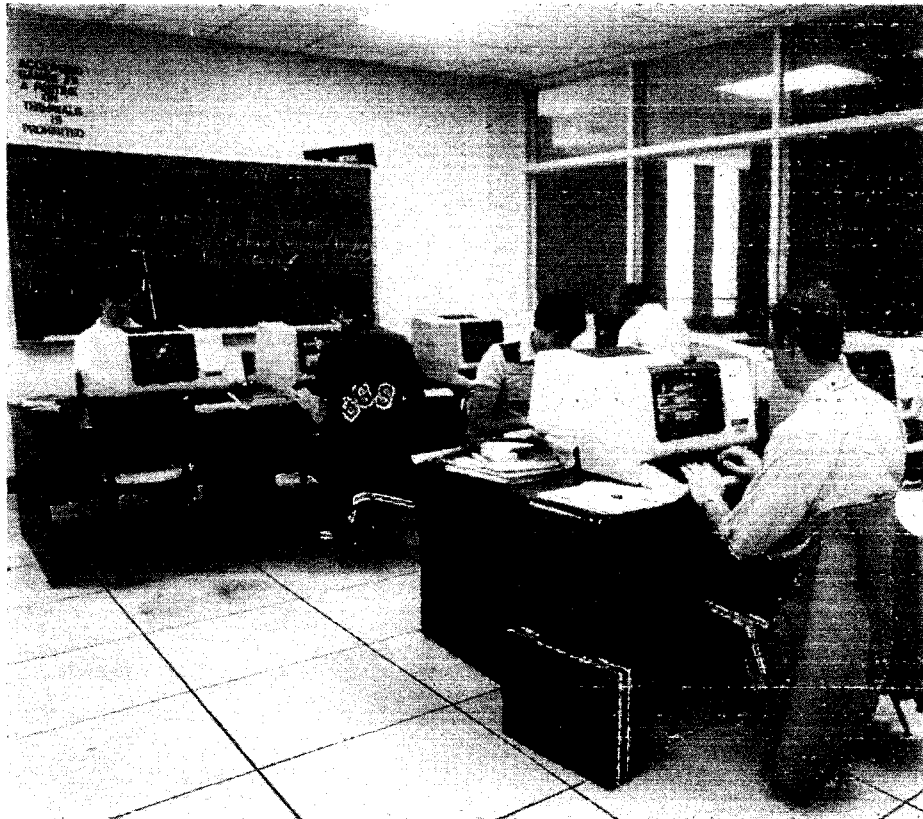
The Writing Laboratory, 303 Moseley, provides individualized instruction for those who seek help with any aspect of basic college writing. The laboratory also offers continued instruction in specialized writing skills that students often need as they pursue advanced courses of study. The laboratory is a free service and is available to all students.

The Language Laboratory, located in 302, 303, and 304 University Hall, serves the Romance Languages and German and Russian Departments, and occasionally English and Asian studies, providing intensive instruction in foreign language. Listening, recording, and audio-visual facilities are available. Students may use the laboratory through their foreign language classes as well as during open hours. Laboratory personnel include assistants proficient in one or more languages who supervise and aid students.

The Developmental Education Program offers academic counseling, tutoring, and courses designed to provide alternatives to conventional instruction. Since classes offered through the program are relatively small, the students receive much more individual attention than they normally would in more conventional courses. Student academic achievement is also closely monitored by both faculty and staff.

The Student Development Program recruits disadvantaged students from various backgrounds and provides supportive services once they reach campus. Offering educational opportunity and personal development, the program helps students achieve educational and vocational goals by assisting them with their financial and educational responsibilities.

Each student at the University is assigned an academic adviser. The adviser assists students in planning their quarterly



schedules, checking their progress toward completing graduation requirements, and helping them in the long-range planning of their programs. It is the student's responsibility to contact the adviser; names and locations of advisers are available in the college offices.

Academic advising and help in career planning are also available in each college office and in the University Division. College office locations and telephone numbers are as follows:

- Arts and Sciences, 215 Administration Building, 372-2015
- Business Administration, 371 Business Administration Building, 372-2747
- Education, 444 Education Building, 372-0151
- Firelands, 150 North Building, 433-5560
- Health and Community Services, 100 Health Center, 372-0242
- Musical Arts, Musical Arts Center, 372-2181

Support Services

Computer Services

Bowling Green provides students, faculty, and staff with access to diverse computing capabilities through several large-scale computers. A DEC System 2050 is available for interactive use (with BASIC, FORTRAN, APL, and other popular computer languages) from terminals located in the Mathematical Sciences Building, Business Administration Building, and other areas on campus including several residence halls. An IBM 370/158 is available for batch processing via Computing Service Centers equipped with card readers and line printers in the Business Administration Building and the Mathematical Sciences Building. A large minicomputer facility with computer graphics is located in the Technology Building.

Students using these facilities for course work will be introduced to the appropriate computer systems by their instructors.

Others should contact a consultant at one of the Computing Service Centers for assistance.

A staff of consultants is available to help users of the many test scoring, modeling, and statistical software packages maintained by the University Computer Service Department. A comprehensive list of available hardware and software and user documentation is available upon request from one of the consultants.

Many of these computer services are available through remote communication facilities located at the Firelands College campus in Huron, Ohio. For further information, contact the director of computer services at Firelands College.

Counseling and Career Development Center

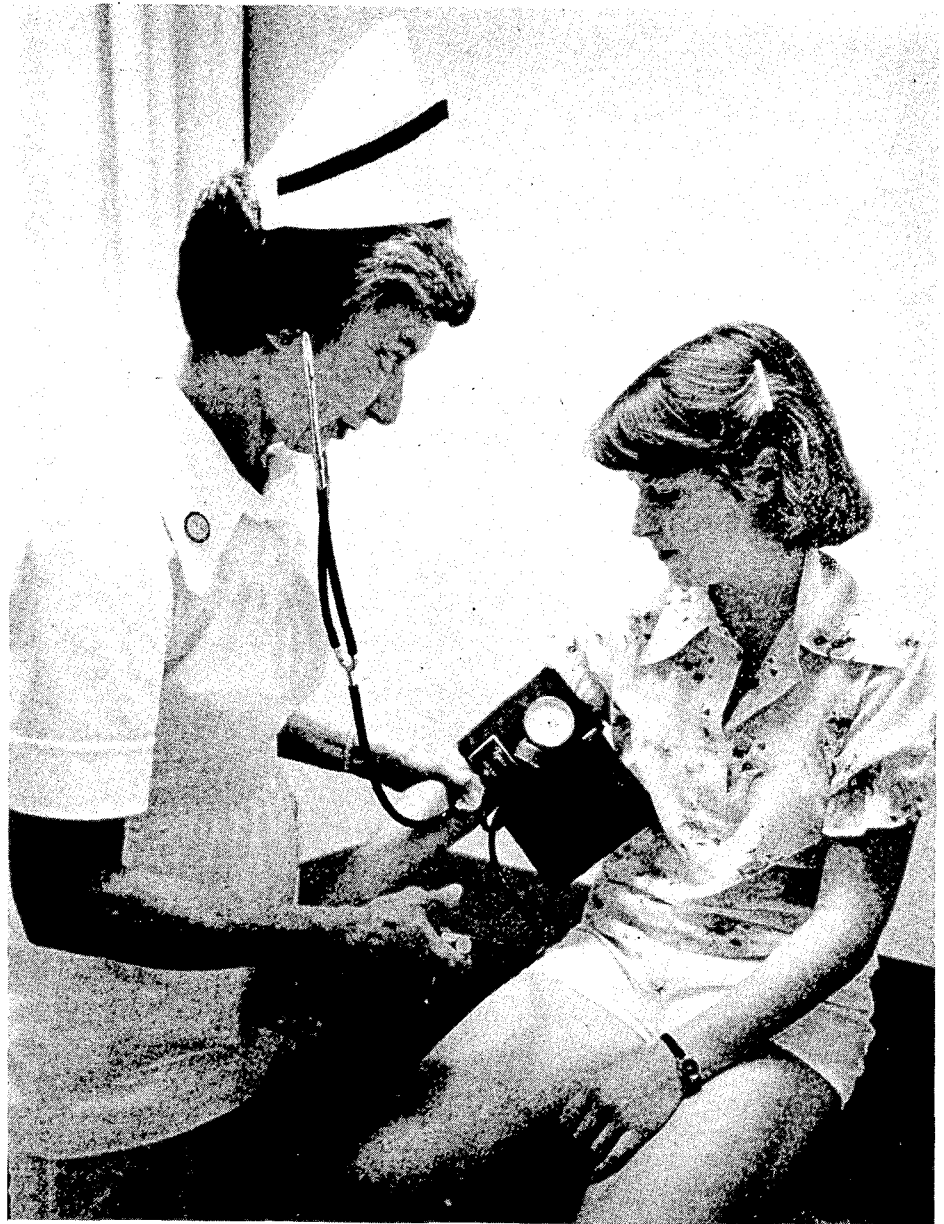
The Counseling and Career Development Center, 320 Student Services Building (372-2081), provides free counseling services to students. This includes assistance with educational, career, personal, and social concerns. A variety of developmental and skill-oriented programs focusing on such topics as effective study habits, test anxiety management, career exploration, and effective interpersonal relations are offered each quarter. The center also contains the Career Educational Library in which written and audio-taped information on academic majors, careers, and colleges and universities is available. A number of testing programs including the American College Test (ACT), College Level Examination Program (CLEP), Graduate Record Examination (GRE), Graduate Management Admissions Test (GMAT), National Teachers' Examination (NTE), Medical College Admissions Test (MCAT), Law School Admissions Test (LSAT), Miller Analogies Test (MAT), and the Cooperative English Examination (CEE) are administered by the center. Language tests for placement in appropriate language courses and a variety of career-related interest and values inventories are also given in the center.

The staff is available for consultation with individual faculty and staff regarding student concerns and with student groups regarding organizational concerns such as leadership, decision making, goal setting, and programming.

Students are seen on a walk-in basis or by appointment. Center hours are 8 a.m. to 5 p.m. Monday through Friday.

Handicapped Services

The Office of Handicapped Services, 705 Administration Building, provides disabled persons with the opportunity to participate in a broad range of educational and employment activities by eliminating architectural barriers, modifying attitudinal barriers, encouraging independence of the individual, and acting as a liaison between rehabilitation agencies and various University offices.



Student Health Service

The Student Health Service, located in the University Health Center (372-2271), provides medical care to students at the first-contact phase in the health care delivery system.

The Student Health Service has clinical facilities and a staff of resident physicians, registered nurses, a pharmacist, and technicians working in the clinical laboratory, physical therapy, pharmacy, and x-ray departments.

Regular clinic hours are 8 a.m. to 8 p.m. Monday through Thursday; 8 a.m. to 5 p.m. Friday; 10 a.m. to 1 p.m. Saturday; and 12 noon to 2 p.m. Sunday.

Students are charged for laboratory, x-ray, physical therapy, and pharmacy services of the Student Health Service. Some laboratory procedures and medical consultations are referred to outside sources at the student's expense.

Students who become ill or are injured at times when the Student Health Service is closed and who believe that immediate medical attention is required should report to the emergency room of the Wood County Hospital. Students who use this service will be expected to pay for the cost of treatment.

Nonemergency transportation service to and from the Student Health Service and Wood County Hospital will be provided by University personnel at no cost. Ambulance service is provided by the City of Bowling Green at the student's expense.

A Blue Cross-Blue Shield student group insurance program is available to students at a reduced student rate. Students should check any hospitalization program under which they are covered (generally as a dependent) since insurance companies have varying reimbursement policies. Students are encouraged to carry some form of health care insurance.

Instructional Media Center

The Instructional Media Center, with its main office in 101 Education Building, provides audio-visual equipment and instructional materials to the academic program at BGSU. Media specialists, production technicians, and utilization experts work with faculty, staff, and students in identifying instructional needs for classroom presentations. Equipment ranges from slide projectors, motion picture projectors, and public address systems, to video tape recorders and players. Instructional developers are available to assist faculty in improving their individual classroom techniques.

The area of production basically covers photography, graphic arts, and typesetting. Services for regularly scheduled classes are free of charge; however, other areas are charged a nominal fee based on materials used and wages if operators are used.

For a more efficient service, the Center maintains full-time media specialists in 112 Math Science Building to serve the science complex and in 226 Technology Building to serve that area.

Parking Services

The University requires that any motor vehicle that is owned or operated by a student be registered within 48 hours after the

time it is initially operated or parked on any property owned or controlled by the University.

An automobile registration charge of \$20 per year (September 1 through August 31) is required of each student who registers an automobile with the Parking Service Office, Commons Building (372-2776). A temporary registration can be obtained for \$1 per week, and may be renewed for \$1 per each additional week. Each automobile on campus must be registered and its decal displayed in accordance with instructions.

Placement Service

The University Placement Service, 360 Student Services Building (372-2356), is responsible for providing counseling and employment services to graduating seniors, advanced degree candidates, and alumni. To facilitate these services, more than 1,400 employer representatives from education, government, industry, and social service organizations are invited to the campus each year. Normally, these recruiters conduct over 9,000 interviews in their search for qualified employees.

The Placement Service provides individual counseling and a variety of programs and services which assist students in determining and implementing career and educational choices. Students are encouraged to use the services of the office at the

beginning of their senior year, especially in regard to establishing files and scheduling interview times.

A full description of services and programs is contained in the *Placement Manual*, which is available to all students interested in placement services.

Psychological Services Center

The Psychological Services Center, located in the Psychology Department, provides services through its doctoral training program to University students on a limited basis. Services include diagnostic evaluations, treatment of behavior disorders through psychotherapy, behavior therapy, biofeedback, and marriage counseling, and case and program consultation to University and community agencies. The Center may be contacted by calling 372-2540.

Speech and Hearing Clinic

The Speech and Hearing Clinic, 338 South Hall (372-2223), assists the student who has a problem in speech or hearing. Any student interested in an examination or possible therapy should contact the clinic for an appointment.

The Speech and Hearing Clinic also extends its services to children and adults in northwestern Ohio and Michigan.



Glossary

Academic year Three quarters: fall, winter, spring.

Accumulative grade point average Grade point average for all courses completed at the University. See grade point average.

Adviser Person in the department of the student's major who provides information and suggestions on courses, prerequisites, and requirements.

Associate degree Degree received, usually after two years, by completing all requirements as outlined in the *Undergraduate Catalog*.

Bachelor's degree Degree received, usually after four years, by completing all requirements as outlined in the *Undergraduate Catalog*.

Coed residence hall On-campus residence unit which houses both women and men, but in separate wings or floors.

Cognate Area of concentration in a subject related to the major field of study.

College Academic division of the University that offers programs through its departments.

Department Academic division of a college that offers one or more major programs of study.

Elective Course that may not fill a requirement, but that is taken for the student's intellectual growth or enjoyment.

General education requirements Courses that ensure a well rounded education. These differ from college to college, but generally cover such areas as English, science, and the humanities. Also known as group requirements.

General fee Fee paid by students to help finance University services and activities.

Grade point average Number between 0.00 and 4.00 derived by dividing the total number of quality points for a quarter by the number of credit hours taken. See example, page 9.

Grant Form of financial aid which does not have to be repaid.

Identification card Plastic card used for identification along with a validation card.

Instructional fee Fee paid by students to finance the cost of instruction not met by state funds.

Letter-graded credits Credits for those courses taken for a letter grade of A, B, C, D, or F. Used in computing academic honors.

Loan Form of financial aid that must be repaid with interest.

Major Subject of study in which a student takes a concentration of course work.

Minor Subject in which a student takes several courses, but fewer courses than for a major.

Orientation Series of presentations and discussions held at the beginning of each quarter to introduce new students to University activities, faculty, and services.

Preprofessional programs Course of study, usually two or three years, which prepares a student to enter a specialized professional school, such as a school of medicine or a theological seminary.

Prerequisite Requirement that must be met before enrolling in a course, usually completion of a more basic course in the same subject.

Quality points Number assigned to letter grades: A = 4, B = 3, C = 2, D = 1, F = 0. No quality points are given for courses taken S/U. By multiplying the number of hours of credit a course is worth by the quality points for the grade received, the number of quality points per course is obtained. See grade point average.

Quarter School term that is eleven weeks long.

Quarter hour Unit of credit assigned generally for one hour of in-class work for a course.

R.A. Abbreviation for resident adviser, an upperclass student who lives in the residence hall and advises and counsels the hall's residents.

Scholarship Form of financial aid awarded for academic excellence; does not have to be repaid.

School Academic division of a college that is larger than a department.

Student Code Rules and regulations governing the behavior of BGSU students.

Summer session The eleven-week summer quarter, which is divided into two five-week terms.

Summer term A five-week division of summer quarter.

Transcript List of all courses completed and grades received; available from the Office of Registration and Records.

Undergraduate Term applied to a freshman, sophomore, junior, or senior who is working toward a bachelor's or associate degree.

Validation card Paper card issued each quarter that signifies registration and payment of fees for a particular quarter.



College of Arts and Sciences

Office of the Dean

John G. Eriksen, Dean, 205 Administration Building, 372-2015
 Allen N. Kepke, Associate Dean, 205 Administration Building, 372-2015

Office of Resources, Planning, and Scheduling

Ralph N. Townsend, Associate Dean, 205 Administration Building, 372-2015

Office of Degree Program Advising and Counseling

Kenneth M. Rothrock, Acting Assistant Dean, 205 Administration Building, 372-2015

Department Chairs

Department of Biological Sciences, Reginald D. Noble, Ph.D., Acting Chair, 217 Life Sciences Building, 372-2332
 Department of Chemistry, Douglas C. Neckers, Ph.D., Chair, 110 Hayes Hall, 372-2031
 Department of Computer Science, Leland R. Miller, Ph.D., Chair, 207 Mathematical Sciences Building, 372-2337
 Department of English, Lester E. Barber, Ph.D., Chair, 202 University Hall, 372-2576
 Department of Ethnic Studies, Robert L. Perry, Ph.D., Chair, 117 Shatzel Hall, 372-2796
 Department of Geography, Joseph G. Spinelli, Ph.D., Chair, 305 Hanna Hall, 372-2925
 Department of Geology, Richard D. Hoare, Ph.D., Chair, 170 Overman Hall, 372-2886
 Department of German and Russian, Joseph L. Gray, Ph.D., Chair, 139 Shatzel Hall, 372-2268
 Department of History, Gary R. Hess, Ph.D., Chair, 117 Williams Hall, 372-2030
 Department of Mathematics and Statistics, Wallace L. Terwilliger, Ph.D., Chair, 450 Math Sciences Building, 372-2636
 Department of Philosophy, Fred D. Miller, Ph.D., Chair, 219 Shatzel Hall, 372-2117
 Department of Physics and Astronomy, Robert Boughton, Ph.D., Chair, 270 Overman Hall, 372-2421

Department of Political Science, William O. Reichert, Ph.D., Chair, 223 Williams Hall, 372-2921

Department of Popular Culture, Ray B. Browne, Ph.D., Chair, Popular Culture Building, 372-2981

Department of Psychology, Donald V. DeRosa, Ph.D., Chair, 207 Psychology Building, 372-2301

Department of Romance Languages, Richard Hebein, Ph.D., Chair, 122 Shatzel Hall, 372-2667

Department of Sociology, Elmer A. Spreitzer, Ph.D., Chair, 40 Williams Hall, 372-2294

School Directors

School of Art, Maurice J. Seigny, Ph.D., Director, Fine Arts Building, 372-2786
 School of Speech Communication, Allen S. White, Ph.D., Director, 109 South Hall, 372-2136

Arts and Sciences

The College of Arts and Sciences is devoted to developing in its students intellectual ability, curiosity, and creativity—attributes essential for a lifelong search for knowledge. Through a curriculum which emphasizes breadth of intellectual inquiry in the natural and physical sciences, the social sciences, the arts, and the humanities, the student is brought into contact with the great questions (epistemological, ethical, social, aesthetic, and scientific) that every person must ultimately consider. As an integral part of this higher learning, students pursue work in major fields of interest that require the learning of critical and scholarly methods for developing and testing new knowledge.

Programs offered in the College of Arts and Sciences provide a foundation for the vocation and career objectives. Largely because of the breadth of education, vocational opportunities exist for many graduates of the four-year arts and sciences program. Certain professions such as medicine and law, however, require that a student plan to attend a graduate school after receiving an arts and sciences degree.

Programs Offered

Majors and minors are available in all areas listed below unless otherwise noted. The following degree programs are available:

College of Arts and Sciences

Bachelor of Arts

Individualized planned programs
 Afro-American studies
 American studies—planned program
 Art
 Art history
 Asian studies
 Astronomy—minor only
 Business administration
 Classical studies—major only
 Computer science
 Economics
 English
 Environmental policy and analysis—planned program
 Film studies
 French
 Geography
 Geology
 German
 History
 Home economics
 Fashion merchandising
 Food science and nutrition
 Home economics general
 Interior design
 Textiles and clothing
 International studies—planned program
 Italian—minor only
 Latin
 Latin American studies—planned program
 Library and educational media—minor only
 Linguistics—minor only
 Mass media—minor only
 Mathematics
 Music
 Philosophy
 Political science
 Popular culture
 Psychology
 Russian
 Russian studies—planned program
 Science—minor only
 Sociology
 Spanish
 Speech communication
 Communication disorders
 Interpersonal and public communication
 Radio-television-film
 Theatre
 Transdisciplinary major
 Statistics—major only
 Women's studies

Bachelor of Science

Individualized planned programs
 Biological sciences
 Microbiology
 Chemistry
 Computer science
 Environmental science—planned program
 Geology
 Geochemistry
 Geophysics
 Paleobiology
 Mathematics
 Physics
 Psychology
 Statistics—major only

Bachelor of Liberal Studies

Liberal studies

Bachelor of Fine Arts (see School of Art)

Creative writing

School of Art**Bachelor of Fine Arts**

Art history
 Ceramics
 Crafts
 Design
 Environmental
 Graphic
 Drawing
 Jewelry and metalsmithing
 Painting
 Prints
 Sculpture
 Teacher preparation

School of Speech Communication**Bachelor of Arts in Communication**

In addition to the above areas of study, the College offers the following special programs:

Preprofessional programs—four-year curricula providing preparation for:

Business
 College teaching
 Graduate study
 Home economics careers
 Library work
 Mathematics and the sciences
 Public administration
 Religious work

Arts professional curricula

Arts-engineering program
 Preparation for dentistry
 Preparation for law
 Preparation for medicine

Preprofessional preparation for:

Engineering
 Mortuary science
 Occupational therapy
 Optometry
 Osteopathy
 Pharmacy
 Veterinary medicine

The College also offers an arts-education curriculum and other programs leading to dual degrees, including certification to teach in the public schools. Combined baccalaureate-master's degree programs are offered in business, chemistry, and other areas. For more information, see page 52.

General Requirements for a Degree

In addition to specific requirements listed on the following pages, a candidate for any degree in the College of Arts and Sciences must meet the general requirements for the baccalaureate degree listed on page 7, in addition to the following:

1. Meet the general education group requirements listed below, preferably in the freshman and sophomore years;

2. Satisfy the requirements for a major and minor area of specialization (if applicable—courses taken for a major may not also be counted for a minor).

Courses may be counted toward the required 183 credits if they are:

a. required or recommended in the student's major or minor;
 b. basic courses in health and physical education—PEG 100 and 200 (in addition to activities required above)—or basic or advanced courses in Air Force or Army ROTC programs;

c. offered by the following departments or divisions: art (except 252, 343, 352, 353); American studies; biological sciences; chemistry; computer science; economics (except 461); English; environmental studies; ethnic studies; geography; geology; German and Russian; history; mathematics (except 241, 242, 243, 414, 415); music (except MUED 351, 352, 353, 354, 355, 356, 456, and courses in pedagogy); philosophy; physics; political science; popular culture; psychology; romance languages; sociology; speech communication (except SPCH 351, CDIS 425, CDIS 435).

A maximum of 20 hours not meeting these specifications may be included in the 183 hours for the degree offered by the College of Arts and Sciences. Courses marked *not for Arts and Sciences credit* may be elected under this provision.

Academic Advising

Although the adviser and the dean's office counsel students and check each student's record, the responsibility for meeting graduation requirements lies with the student and not with the adviser, the department, or the dean. Thorough familiarity with the *Undergraduate Catalog* is essential.

Bachelor of Arts Degree

Each student must complete the group requirements listed below as nearly as possible in the freshman and sophomore years and must satisfy the requirements for a major and a minor area of specialization. Every student, however, must take English and physical education in the first year. If known, the major or minor may be started in the first year; but selection of the major may be made as late as the junior year.

General Education Group Requirements**Group I: Communication**

Students are required to complete ENG 112 or to demonstrate by examination that they have proficiency in written expression equivalent to that attained by the student who completes that course. (A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8.) SPCH 102 is recommended for each student.

Group II: Foreign Language or Cultural Experience

Each student is required to demonstrate a proficiency in a language and language area as stipulated in the options listed below by:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course-level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (20 hours minimum in the same language area, or fewer by advanced placement).

German, Japanese, Russian

Completion of GERM 101, 102, and 103 plus a minimum of eight additional hours from: GERM 100, 117, 118, 119, 201, 202, 217, 231, 331, and/or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 103, 201, and 202; or

Completion of RUSN 101, 102, and 103 plus a minimum of eight additional hours from: RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331, and/or RUSN 311, 312, 313.

Romance Languages (French, Italian, Latin, Spanish)**Option I:**

FREN 101, 102, 103, 201, and 202; or ITAL 101, 102, 103, 201, and 202; or LAT 101, 102, 103, 201, and 202; or SPAN 101, 102, 103, 201, and 202

Option II: one of the following:

FREN 111, 112, 113, 211, and 212; LAT 101, 102, and 103, and two of: LAT 141 and/or 142 and/or 201; SPAN 111, 112, 113, 211, and 212

A student may transfer at any point from option I to option II but not vice versa. A student who selects option II must complete all courses in that sequence subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Group III: Mathematics and Science

Each student must complete both 1 and 2.

1. At least three courses elected from astronomy, biological sciences, chemistry, geology, physics, or physical geography (including GEOG 125, 126, 127, 213, 404) including at least two courses ap-

proved for laboratory credit from a list of approved courses available in the office of the College of Arts and Sciences.

2. One of the following:

a. three and one-half years of high school mathematics or equivalent proficiency as demonstrated on a placement test;

b. MATH 115, 124 or 130*;

c. MATH 110 or 121* and one of the following: PHIL 103, CS 100, CS 101, or CS 103;

d. three years of high school mathematics and CS 100 or CS 101 or CS 103. High school mathematics means college preparatory mathematics, which normally includes algebra I and II, geometry, and in the case of three and one-half years, trigonometry. Remedial, technical, and business mathematics are not applicable.

Group IV: Social Sciences: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology

Each student is required to complete six courses selected from at least three areas with at least three courses in one area.

Courses taken in the student's major may not be counted to satisfy this requirement. A list of approved ethnic studies courses is available in the office of the College of Arts and Sciences

Group V: Arts and Humanities

Each student is required to complete one course in literature (American, English, or foreign), one course in the fine arts (art, music, theatre, television and film), and three additional courses from at least two of the following areas: ART 101, art history; American, English, or foreign literature; American studies; ethnic studies; music appreciation, music history, music literature; philosophy (except PHIL 103 used to apply to Group III); popular culture; drama, history of public address; women's studies. It is recommended that philosophy be one of these areas. A list of courses approved for Group V requirements is available in the office of the College of Arts and Sciences. Courses taken in the student's major may not be counted to satisfy this group.

Bachelor of Arts: Majors and Minors

By the middle of the second year most students select a major and minor subject. The number of hours required for a major or minor varies with departmental requirements but at least 48 hours are required in the major and 30 hours in the minor except as indicated in the following sections. In arranging courses in the minor field, a student should consult the department concerned.

Outlines listed for each major represent the usual sequences, but may be modified upon departmental approval to meet individual needs.

*See Department of Mathematics and Statistics for placement test.

Individualized Planned Program Option

For the student whose educational objectives cannot be met by one of the departmental majors or minors or by one of the planned programs, the following option is available. The student may create an individualized planned program in consultation with a faculty adviser or advisers to substitute for the major or minor or both. A student who has earned at least 45 hours of credit and who needs at least 45 hours to complete the program may petition the Academic Appeals Board of the college by presenting a statement of rationale for an individualized planned program as well as a detailed list of courses to be taken. Upon approval, the student is obligated to complete the program as planned unless changes are approved by the Office of the Dean. The group requirements remain the same.

Afro-American Studies

113 Shatzel Hall, 372-2796

An interdepartmental and interdisciplinary planned program designed to provide a comprehensive study of the black man with particular attention given to the life and experience of the black American and his relationship to blacks throughout the world.

The program also provides opportunities for students who are majors in Afro-American Studies to undertake a planned program of studies for one year in a university in Africa. The student should consult with Dr. Ernest Champion before undertaking this program.

Major (60 hours)

30 hours in one of the following: ECON, ENG, HIST, POLS, PSYC, SOC, or speech communication
Seminar or independent study (16)
Electives selected in consultation with an adviser (14)

Minor (30 hours)

Course work selected by the student and the Department of Ethnic Studies and approved by the College of Arts and Sciences.

American Studies

214 University Hall, 372-0110

Planned program—no minor required.

An interdisciplinary program dedicated to the holistic study of American culture, society, and institutions, American studies offers individualized programs using offerings in the humanities and social sciences which focus on the American experience. Courses designated as American studies develop the skills and methods appropriate to cultural studies and serve to integrate the substance of other disciplines into coherent patterns reflecting the complexity of American life and our national heritage. The director of American studies and the undergraduate adviser help students design programs suited to their

needs and interests within the general requirements of the program and the college.

The program requires 67 hours minimum including the following:

ART 441 and 442 (6)

HIST 205 and 206 (8)

POLS 201, 301, 304, 331, 332, 341, 345, 346, 347, 416, 417, 418, 421, 422, 430, 432, 440 and/or 442 (8)

Concentration of 23 hours (including the basic courses) in ART, ENG, HIST, PHIL, POLS, SOC, or GEOG

ENG 303 and/or 304 and/or 305 (10)

PHIL 315 and 415 (8)

SOC 101 and SOC 231, 311, 315, 316, 413, or 418 (8) or GEOG 231, 325, 326, 333, 335, 351, 402, 425, 426, 430, 436, or 451 (8-9)

Electives approved by American studies adviser

At least half of the 67 hours must be in 300- or 400-level courses. At the discretion of the instructor and the student's adviser, prerequisites to courses identified as cognates in the American studies program are waived for students in the program.

Other programs

Programs in American studies also are available through the College of Education.

Art

116 Fine Arts Building, 372-2786

Major (48 hours)

First year (18 hours)

ART 102, 103, 112, 113, 145, 146

Second year (24 hours)

ART 147, 205, 211, 261, 263, 277, 371, 373

Third and fourth years

Art history (3)

ART elective (3)

Minor (30 hours)

First year (18 hours)

ART 102, 103, 112, 113, 145, 146

Second year

ART 147 (3)

ART electives

Third and fourth years

Art history (3)

ART electives

Other programs

Bachelor of Fine Arts programs in art are offered by the School of Art in the College of Arts and Sciences. In addition, a Bachelor of Science program in visual arts education is available through the College of Education. A Bachelor of Science in Art Therapy is offered through the College of Health and Community Services.

Art History

120 Fine Arts Building, 372-2786

Major (50 hours)

ART 102, 145, 146, 147 (12)

Studio electives (6)

Art history electives, including one course

in each of the following areas: classical, medieval, renaissance, baroque, modern, and oriental (30)

Minor (30 hours)

ART 102, 145, 146, 147 (12)

Art history electives (18)

Other programs

A major in art history leading to the Bachelor of Fine Arts degree is available through the School of Art of the College of Arts and Sciences.

Asian Studies

108 Williams Hall, 372-2196

Planned program

Through a multi-disciplinary approach, the Asian studies program is designed to provide students with:

- a. a broad view of Asia;
- b. an in-depth knowledge of a selected country, or region of Asia;
- c. an ability to comprehend an indigenous language.

Major (55 hours taken from a list of courses provided plus the completion of a 202-level Asian language course)

Minor (40 hours)

No Asian language required.

Student exchange program

A student may elect to study at a Japanese or a Korean university.

Other programs

A program in Asian studies also is available through the College of Education.

Business Administration

313 Business Administration Building, 372-0211

Major (52 hours)*First year*

MATH 124 and 125 (10)

Second year

ACCT 221 and 222 (8)

STAT 211 and 212 (8)

ECON 202 and 203 (8)

MIS 200 (4)

Third year (16 hours)

ECON 303 or 311 (4)

FIN 300 (4)

MKT 300 (4)

MGMT 300 (4)

Fourth year (8 hours)

LEGS 301 (4)

BA 405 (4)

Minor (36-40 hours)*First year*

MATH 124 and 125 (10)

Second year (20 hours)

ECON 202 and 203 (8)

STAT 211 (4)

MIS 200 (4)

ACCT 221 (4) (ACCT 222 strongly recommended)

Third year (12 hours)

FIN 300 (4)

MGMT 300 (4)

MKT 300 (4)

Fourth year (4 hours)

BA 403 or LEGS 301 (4)

Other programs

Programs in business administration also are offered through the College of Business Administration.

Classical Studies

227 Shatzel Hall, 372-0069

Major (37 hours)

PHIL 310 (4)

HIST 441 or 442 (4)

Two 400-level courses in Latin

At least 21 hours beyond LAT 202

LAT 351 (5)

Greek language courses recommended.

ART 444, 445, or 446 (3)

Computer Science

207 Mathematical Sciences Building, 372-2337

Major (48 hours)

CS 101 or 103 (4-5)

CS 104, 201, 202, 205, 305, 306, 307 (28)

MATH 131 and 231 (10)

MATH 222 or 332 (4)

CS electives, including three CS courses at the 400 level (16)

The following courses may not be applied to the 48-hour major requirement: CS 100, 180, 260, 390, 400, 490.

Minor (28 hours)

CS 101 or 103 (4-5)

CS 104, 201, and 205 (12)

CS electives (11-12)

The following courses may not be included in the 28-hour minor requirement: CS 100, 180, 260, 390, 400, 490.

Recommended electives

ACCT 221, ACCT 222, ENG 488, MATH 247, PHIL 303; it is recommended that the natural science requirement be completed by taking PHYS courses.

Other programs

A Bachelor of Science in computer science also is offered by the College of Arts and Sciences. In addition, programs in computer science are available through the College of Education. A program in management information systems is offered by the College of Business Administration.

Economics

309 Business Administration Building, 372-0080

Major (48 hours)*First year*

MATH 124 and 125 (prerequisites to STAT)

Second year

STAT 211 and 212 or equivalent (not counted in hours required for major) (8)

ECON 202 and 203 (8)

Third year

ECON 302, 303, and 473 (12)

Fourth year

ECON electives (28)

Minor (30 hours)*Second year*

ECON 202 and 203 (8)

Third year

ECON 302 and 303 (8)

Fourth year

ECON electives (14)

Other programs

Programs in economics also are available through the College of Business Administration and the College of Education.

English

205 Moseley Hall, 372-2576

Major (48 hours beyond ENG 112)*Group I*

ENG 301 (4)

ENG 201, 207, 208, 209, 251, 456, 483, and/or 488 (8)

ENG 202, 203, 204, 205, or 206 (4)

Group II

ENG 262, 309, 400, 401, 402, 403, 406, 452, and/or 482 (8-9)

Group III

ENG 261, 303, 310, 404, 408, 410, 411, 415, and/or 453 (8-10)

Group IV

ENG 263, 304, 311, 322, 416, 417, 418, 430, 435, and/or 454 (8-10)

Group V

ENG 290, 305, 320, 323, 325, 330, 333, 335, 372, 380, 419, 420, 455, and/or 456 (8-10)

Electives (Not part of 48-hour requirement)

ENG 150, 200, 209, 291, 300, 306, 307, 308, 324, 342, 343, 385, 407, 423, 442, 481, or 485

POPC 220

Special Studies Option

English majors with specific career goals, such as commercial or technical writing, legal studies, or linguistics, may, with the approval of the English adviser, design a program of two relevant ENG courses which may be substituted for two required courses in groups II, III, IV, or V (no more than one substitution per group).

Minor (32 hours beyond ENG 112)*Group I*

ENG 301 (4)

ENG 201, 207, 208, 209, 251, 456, 483, and/or 488 (8)

ENG 202, 203, 204, 205, or 206 (4)

Group II

ENG 262, 309, 401, 402, 403, 406, 452, or 482 (4-5)

Group III

ENG 261, 303, 310, 404, 408, 410, 411, 415, or 453 (4-5)

Group IV

ENG 263, 304, 311, 322, 416, 417, 418, 430, 435, or 454 (4-5)

Group V

ENG 290, 305, 320, 323, 325, 330, 333, 335, 372, or 380 (4-5)

Electives

ENG 150, 200, 209, 291, 300, 306, 307, 308, 324, 342, 343, 385, 407, 423, 442, 481, or 485

Other programs

Programs in English are also available through the College of Education. The College of Arts and Sciences also offers the Bachelor of Fine Arts degree with a major in creative writing.

Environmental Policy and Analysis

124 Hayes Hall, 372-0207

Planned program; no minor required

The program emphasizes the multidisciplinary nature of the field of environmental

studies and the roles of those disciplines outside of the natural sciences which address environmental issues. The curriculum includes basic instruction in the ecosystem approach and an area of emphasis chosen in consultation with faculty members and the program adviser. Some of these areas are environmental planning, environmental management, resource analysis, and outdoor recreation. Required courses are:

ENVS 101, 301, 401, and 402 (11)
 CS 100 or 101 (4-5)
 ECON 200 or 202 (4)
 SOC 101 or PSYC 201 (4-5)
 BIOL 203 (5)
 PHYS 101E (4)
 PHIL 332 (4)
 POLS 336 (4)
 ENG 488 (4)
 LEGS 431 (4)
 BIOL 201, 202, 101, 104 (two courses) (10)
 IPCO 203, 204, or 205 (4)
 Two from: GEOG 125, 126; CHEM 111, 112, 121, 122; GEOL 103, 104

Statistics (choose one group): MATH 115; MATH 247 and 347; PSYC 270 and 271; SOC 369; STAT 200; STAT 211 and 212

Four courses chosen from: ECON 435; EDFI 416; ENVH 404; ENVR 421; GEOG 325, 331, 333, 426, 442; HIST 338; POLS 335, 337, 401; PSYC 440; RED 273; SOC 300, 312, 315

Twenty hours must be taken in an area of emphasis, such as environmental planning, management and administration, legislative and policy area, and environmental analysis (economics and statistics). Students should file an approved course list for the area of emphasis no later than the end of the junior year. An internship is highly recommended.

Other programs

The College of Arts and Sciences offers a planned program in environmental science leading to a Bachelor of Science. Environmental programs are also available in the College of Health and Community Services and the College of Education. Students should contact the Center for Environmental Programs, 124 Hayes Hall, 372-0207, for help in selecting the program that most closely meets their career objectives.

Film Studies

Popular Culture Building, 372-2981

Planned program; no minor required
 Film studies is an interdisciplinary program designed to provide a broad general education in all major aspects of film study and areas of specialization that meet an individual student's interests and needs. Students majoring or minoring in film studies may select courses from the following departments or schools: art, English, German-Russian, history, industrial education, journalism, philosophy, popular culture, romance languages, and speech communication.

The program consists of a minimum of 64 credit hours for a film major and 32 credit hours for a minor.

Major

After completion of 32 hours of course work in the basic core, the student selects an additional 32 hours of course work in the creative/technical track or in the history/theory/criticism track. The creative/technical track provides tools and techniques for the talented student to use in cinematic expression. The history/theory/criticism track seeks to explore film in a variety of ways in order to prepare skilled film teachers or critics. The program for each student is individually planned in a series of conferences between the student and the director/adviser.

Core courses

RTVF 261, 264, 464, 466 (16)
 POPC 250 or ENG 200 (4)
 JOUR 306 or VCT 282 (4)
 RTVF 469 or POPC 350 or ENG 385 or PHIL 335 (4)
 GERM 415 or RUSN 415 or ROML 200 or ITAL 261 (4)

Creative/Technical track—32 hours from:

RTVF 263, 364, 490
 THEA 241, 243, 341, 342, 343, 349, 443
 JOUR 306, 307, 406, 430
 ART 325
 VCT 203, 328

History/Theory/Criticism track—32 hours from:

ENG 200, 251, 385, 485
 HIST 153, 391
 PHIL 335
 POPC 350, 355
 ROML 200
 ITAL 261
 GERM 415
 RUSN 415
 RTVF 469

Minor (32 hours)

RTVF 261, 464, and 466 (12)
 ENG 200 (4)
 POPC 250 (4)
 GERM 415 or RUSN 415 or ROML 200 (4)
 JOUR 306 or VCT 282 (4)
 RTVF 469 or POPC 350 or ENG 385 or PHIL 335 (4)

Other programs

Programs in radio-television-film are offered by the College of Arts and Sciences as Bachelor of Arts sequences and by the college's School of Speech Communication as Bachelor of Arts in Communications sequences.

French

122 Shatzel Hall, 372-2667

Major (36 hours beyond FREN 202)

Four 400-level courses, one of which must be literature
 FREN 350 (may be waived by department), 351, 352, 361, 362, 371, and 372 (21)

Minor (25 hours beyond FREN 202)

FREN 350 (may be waived by department), 361, 362, 371, and 372 (12)
 Electives

Other programs

Programs in French also are offered by the College of Education.

Geography

305 Hanna Hall, 372-2925

Major (48 hours)

GEOG 125, 126, 127, or 213 (4)
 GEOG 225 or 230 (4-5)
 GEOG 321 (4)
 Electives (in consultation with adviser) (35-36)

A student may specialize in urban, rural, and regional planning; delivery and planning of social services; cartography; economic geography; environmental resources; population; and other aspects of geography.

Minor (30 hours)

Other programs

Programs in geography also are offered by the College of Education

Geology

64 Overman Hall, 372-2886.

Major (40 hours above the 100 level including GEOL 493 or 494)

Minor (30 hours)

Other programs

The College of Arts and Sciences also offers Bachelor of Science programs in geology. The College of Education offers programs in earth science.

German

130 Shatzel Hall, 372-2269

Major (36 hours beyond GERM 202)

GERM 317, 318, and 417 (12)
 Electives in GERM at 400 level (6-8)
 GERM 260 and 360 do not count toward the major.

Minor (21 hours beyond GERM 202)

Other programs

Programs in German also are available through the College of Education.

History

204 Williams Hall, 372-2325

Major (48 hours)

16 hours chosen from the following:
 HIST 151, 152, 205, 206, 280
 32 hours from the following with at least four hours at the 400 level chosen from each of the three categories:

European history

HIST 357, 363, 367, 377, 390, 415, 443, 444, 445, 446, 448, 449, 450, 453, 454, 457, 458, 459, 464, 469, 470

U.S. history

HIST 301, 302, 303, 306, 307, 320, 323, 325, 326, 338, 419, 420, 421, 422, 425, 426, 427, 428, 429, 430, 432, 433, 435, 436, 437, 438

Other

HIST 305, 309, 310, 315, 316, 340, 382, 386, 401, 411, 413, 414, 441, 442, 462, 481, 483

Minor (32 hours)

16 hours chosen from the following:
 HIST 151, 152, 205, 206, 280
 16 hours at 300 or 400 level, with at least four hours at the 400 level, chosen from two of the three categories indicated above.

Other programs

Programs in history also are offered by the College of Education.

Home Economics

206 Johnston Hall, 372-2026

Five programs are available through the Department of Home Economics. These include planned professional programs in fashion merchandising and interior design; major programs in food science and nutrition, and textiles and clothing; and a general home economics major with a concentration in foods and nutrition or textiles and clothing. Fashion merchandising students may choose to study for a year at the Fashion Institute of Technology, New York, during the junior or senior year. No minor is required for the two planned professional programs. Programs must be planned with the adviser no later than the second year. After the second year students may participate in a supervised field experience during the summer or academic year. The following programs are available.

Fashion Merchandising

206 Home Economics Building, 372-2026

This is a planned program designed to prepare students for careers in business and industry. These may include executive management positions; retail or wholesale merchandising; educational and/or sales representative for fabric, apparel, and accessory firms. No minor is required.

First year (28 hours)
ART 101, 103, and art history (9)
HOEC 100, 101, and 103 (11)
SOC 101 (4)
SPCH 102 (4)

Second year (17-22 hours)
ECON 202 (4)
PSYC 201 (5)
HOEC 202 and 204 (8)
HOEC 388 (2-5) optional

Third year (31 hours)
HOEC 303 and 313 (8)
MKT 300 and 340 (8)
BA 303 (4)
ACCT 325 (4)
HOEC 312, 412, and/or 414 (6-7)

Fourth year (27 hours)
HOEC 401, 402, 403, and 404 (15)
MKT 410, 430, and 436 (12)

Food Science and Nutrition

206 Johnston Hall, 372-2026

A major program designed for the student who wishes to specialize in the food science field preparatory to graduate study or for a career in business or industry. A minor is required.

First year (15 hours)
CHEM 121, 122, and 123 (15)

Second year (33 hours)
CHEM 306, 308, and 309 (11)
ECON 200 or 202 (4)
ECON 203 (4)
HOEC 210 and 212 (9)
PSYC 201 (5)

Third year (20 hours)
HOEC 30, 307, 326, 327, and 331 (20)

Fourth year (21 hours)
HOEC 405, 431, 432, 435, and 436 (21)

Students interested in completion of requirements for membership in the American Dietetics Association should refer to the College of Education and College of Health and Community Services.

Students interested in restaurant management-institutional food service should refer to programs in the College of Education.

Interior Design

209 Home Economics Building, 372-2026

The interior design program trains students in the planning and executing of residential and contract interiors. Course work helps students evaluate problems and devise solutions for them. Students who complete the approved four-year program are eligible to apply for associate membership in the American Society of Interior Designers (ASID).

First year (32 hours)
ART 102 and 103 (6)
CS 100 (3)
HOEC 103 and 219 (8)
DESN 104 (4)
SOC 101 (4)
SPCH 102 (4)

Second year (22 hours)
ART 112, 147, and 213 (9)
HOEC 303 (4)
ECON 202 (4)
HOEC 388* (2-5)
CONS 235 (4)
PSYC 201 (5)

Third year (25 hours)
ACCT 325 (4)
ART 313 and 314 (6)
HOEC 319 and 333 (6)
DESN 301 (5)

Fourth year (38 hours)
ART 417 and 440 (6)
HOEC 417, 418, and 440 (12)
HOEC 490 (4)
HOEC 419 (8)
MGMT 305 (4)
MKT 340 (4)

Elect 12 hours from the following:
HOEC 105 (4)
BA 303 (4)
HOEC 313 (3)
MKT 300 (4)
HOEC 406 (4)
MKT 410 or MKT 430 (4)

Also see School of Art for specializations in graphic and environmental design and School of Technology for a specialization in product design.

Textiles and Clothing

101 Home Economics Building, 372-2026

A major program designed for the student who wishes to specialize in the textiles and clothing field preparatory to graduate study or for a career in business and industry. A minor is required.

First year (14 hours)
HOEC 100, 101, 103, and 105
Second year (8 hours)
HOEC 202 and 207 or 325

Third year (17 hours)
HOEC 301, 303, 312, 313, and 327

Fourth year (21 hours)
HOEC 401, 402, 403, 404, 412, and 414

Home Economics General

206 Johnston Hall, 372-2026

Major

A program designed for the student who desires a general home economics background with a concentration in foods and nutrition or textiles and clothing, or plans to continue in graduate school. A minor is required.

Core Courses (23 hours)
HOEC 103, 105, 205, 301, 303, 327
Foods and Nutrition Concentration (25 hours)
HOEC 206, 210, 212, 307, 324, 431

Textiles and Clothing Concentration (24-25 hours)
HOEC 100, 101, 202, 401, and 404
HOEC 207 or 325
HOEC 312 or 412

Minor (31 hours)

HOEC 103, 105, 205, 207, 303, 324, 325, and 327

Other programs

Programs in home economics also are available through the College of Education and the College of Health and Community Services.

International Studies

227 Williams Hall, 372-2921

Planned program

International studies is an interdisciplinary program for the undergraduate who wishes to pursue a concentrated course of study in preparation for research, teaching, or administrative specializations in the area of the Middle East, the Soviet Union, Eastern Europe, or Western Europe.

A student must specialize in one of these areas and complete 20 hours of basic courses—HIST 152, POLS 101, ECON 202, GEOG 230, and SOC 231—together with 25 hours of courses in the area of specialization, chosen in consultation with the major adviser. To insure maximum exposure to the intellectual and literary traditions of the area of choice, the student must complete 9 hours of courses above the 202 level in an appropriate language—GERM, RUSN, or FREN. The student also is encouraged to take advantage of appropriate programs of study abroad sponsored by Bowling Green or other universities. An appropriate minor is chosen in consultation with the international studies adviser.

Other programs

Programs in Afro-American studies, Asian studies, Latin American studies, and Russian studies are also available through the College of Education.

Latin

122 Shatzel Hall, 372-2667

*optional field experience

Major (32 hours beyond LAT 202)
LAT 480, 481, 485, and/or 486 (7)

Minor (20 hours beyond LAT 202)

Other programs

Programs in Latin also are offered through the College of Education.

Latin American Studies

202 Williams Hall, 372-2805

Planned program

An interdisciplinary planned program for those students who want to specialize in the Latin American area. The student must complete 50 hours of courses in HIST, GEOG, POLS, SPAN, ECON, and SOC along with a Latin American studies senior seminar. The student's foreign language is Spanish and an appropriate minor is selected in consultation with the Latin American Studies adviser.

HIST 309, 310, 411, and 412 (16)

POLS 355, 456, and 477 (12)

LAS 401 (4)

GEOG 348 and 349 (8)

SPAN 368, 377, 378, 431, 432, 481, 485, 486, 488, and/or 492 (12)

Other programs

A program in Latin American studies also is available through the College of Education.

Mathematics

450 Mathematical Sciences Building,
372-2636

Basic requirements for the major and minor are listed below along with several recommended selections of electives for the major. These options provide an opportunity to plan a major appropriate for entry into the specific areas of application or graduate study.

Major (51 hours)

MATH 131, 231, 232, 233, 332, and 339 (27)
Six courses* at the 300 or 400 level to total 51 hours including:***

A:** MATH 403 or 432

B:** MATH 430 or 434 or 465

C: two courses from each of two groups below or three courses from one group:
MATH 401, 403, 404, 432
MATH 337, 437, 439
MATH 451, 452
MATH 402, 405
MATH 313, 421, 422
MATH 430, 434, 461, 465
MATH 441, 442, 443, 445

Minor (31 hours)

MATH 131, 231, 232, 233, and 332 (23)

Two electives at the 300 or 400 level* (8)

First year

MATH 131, 231, and 232

Second year

MATH 233, 332, and 337 or 339

Recommended electives

Actuarial Science (Insurance) Option

MATH 226, 426, 430, 432, 441, 442, 443, 451

INS courses

CS 101, 104, 440, 442

ACCT 221, 222, or 320

Engineering and Physical Science Application Option

MATH 337, 430, 432, 434, 441, 452, 461

PHYS 131, 232, 233

MATH 437 or 439

CS 101 and 104

Two electives in physical science

Numerical and Statistical Application Option

MATH 337, 430, 432, 441, 442, 443, 451, 452

CS 101, 104, 440, 442

PHYS 131, 232, 233

Pregraduate Study in Mathematics, Statistics, Computer Science, and Operations Research

MATH 403, 430, 432 and 465 are basic to all

graduate study in the mathematical sciences. The remaining electives should be chosen according to one's area of interest after consulting with a department adviser.

Other programs

A Bachelor of Science in mathematics also is offered by the College of Arts and Sciences. In addition, programs in mathematics are available through the College of Education.

Music

Musical Arts Center, 372-2181

Students who wish to pursue a major or minor in music should contact the assistant dean of the College of Musical Arts.

Major (58 hours)

Core requirements (26 hours)

MUCH 111, 132, 232, 332, 333; MUCH 142, 143, 241

Applied instruction

MUSP: study on a single instrument (6)

Ensemble study

See MUSP or MUCH (6)

Music electives

20 hours from MUCH, MUED, and MUSP excluding MUCH 316; MUED 240, 249, 331, 332, 340, 349, 350, 356, 359, 402, 450, 451, 458; MUSP 366, 367, 368, 453, 454, 458, 459, 466.

Minor (38 hours)

Core requirements (22 hours): MUCH 111, 132, 232, 332; MUCH 142, 143, 241

Applied instruction (MUSP: study on a single instrument) (4)

Ensemble study (4)

Music electives: 8 hours from MUCH, MUED, and MUSP except those courses listed as exclusions under music major electives

Other programs

Degree programs in music also are offered through the College of Musical Arts.

Philosophy

221 Shatzel Hall, 372-2117

Major (48 hours)

At least three of the four courses in the history of philosophy (PHIL 310, 311, 312, 313) and at least 12 hours of 400-level PHIL courses. PHIL 103 or 303 is strongly recommended.

The philosophy program for majors serves three kinds of students.

1. For those students interested in philosophy as the core of their education, PHIL 303, 315, 317, 321, 331, 412, and 414 are highly recommended in addition to those requirements listed above.

2. Students taking philosophy as a basis for a vocational career outside of philosophy should consider one or more of the following: PHIL 210, 245, 318, 319, 320, 327, 332, and 342. During the senior year, these students may obtain job experience and academic credit through internships.

3. Students with two majors, one of which is philosophy, should consider PHIL courses related to other disciplines, such as PHIL 204, 230, 334, 335, 418, 425, 432, and 433.

Minor (30 hours)

At least two of the four courses in history of philosophy (see above) and at least four hours of 400-level PHIL courses.

Students who choose a minor in philosophy for its intrinsic value may want to consider the courses listed under (1) above. Those who choose a philosophy minor as a complement to their major should select courses from those recommended in (2) and (3) above.

Students are encouraged to take the history of philosophy courses not later than the junior year. Although not required, most students begin their program with one or two introductory PHIL courses.

Other programs

Programs in philosophy are also offered through the College of Education.

Political Science

227 Williams Hall, 372-2921

Major (48 hours)

POLS 101, 201, and 290, and POLS 402 or 403.

POLS 290 must be taken no later than the end of the junior year. A minimum of 32 hours of political science at the 300-400 level distributed among at least four areas of political science with a concentration in one is also required. When appropriate to the student's program, some courses may be counted as fulfilling area requirements other than the specialization under which they are listed. All students must consult with an adviser early in their pursuit of a major. Students with a strong background in political science may petition the department chair or the undergraduate adviser to have the POLS 101 or 201 requirement waived.

American government:

POLS 302, 331, 332, 333, 334, 335, 337, 341, 342, 345, 346, 347, 434, 436, 440, 442, 443, 444

Comparative government:

POLS 351, 354, 355, 361, 366, 368, 453, 454, 456, 460, 470

International relations:

POLS 371, 372, 374, 461, 473, 475

Political theory:

POLS 301, 304, 402, 403, 404, 405, 452

Public administration:

POLS 330, 421, 422, 423, 430, 459

Public law:

POLS 416, 417, 418, 419, 424, 425

*except MATH 222, 226, 395, 414, 415, 489, 490, 495.

**may be modified in a planned program approved by an adviser and the department.

***Some of these courses may not be offered every year.

POLS 221 is a prerequisite for any of the 300- or 400-level courses in public administration. The beginning student is encouraged to take the following courses before beginning advanced courses in a particular area: POLS 201 for American government, POLS 250 for political theory, POLS 271 for international relations. Students opting for honors in political science must also take POLS 400, Honors Seminar in Contemporary Political Science, and write a senior thesis under the direction of a faculty adviser.

Minor (30 hours)

POLS at 100-200 level (8)
POLS at 300-400 level (22)

Other programs

Programs in political science also are available through the College of Education.

Popular Culture

Popular Culture Building, 372-2981

Planned program, no minor required

The Department of Popular Culture broadens the base of college education by using the subject matter and methodologies of many disciplines, yet focusing on the dominant or "popular" culture of any period of time. While studies of contemporary culture are certainly an important part of the popular culture program, historical material is emphasized as well.

The director and adviser direct the program and assist students in designing schedules adapted to their special needs and interests and to the requirements of the college and the program.

Major (65 hours; 28-29 hours in required POPC courses and 36-37 hours selected from POPC courses or from the list of electives below or both.)

Required courses POPC 160, 165, 220, 370 or 470, 400, 426, and one of the following: 250, 350, 355

Elective courses (major and minor)

AMST 200, 300, 400
ART 147, 419, 440, 441, 442
CONS 235
CRJU 210
CS 200
DESN 104
ECON 361, 372, 459, 460, 471, 473
EDFI 408, 460
ENG 200, 251, 300, 303, 304, 305, 311, 322, 342, 343, 372, 385, 422, 423, 485, 488
ETHN 201, 410
FREN 260, 371, 372
GEOG 225, 230, 231, 325, 327, 333, 335, 426, 430, 442, 451
GERM 315, 316, 325, 415
HIST 205, 206, 207, 280, 302, 303, 306, 307, 323, 326, 377, 386, 405, 419, 420, 421, 422, 425, 426, 427, 428, 429, 430, 434, 435, 436, 448, 449, 459, 462, 464, 470, 481, 483, 486
HOEC 105, 107, 302, 326, 327, 328, 401, 403, 406, 407, 408, 428, 429
ITAL 261, 371
JOUR 203, 306, 416, 423, 433, 435, 471
LAT 480, 481
MKT 402, 410, 411, 412, 420
MUCH 130, 134, 333, 334, 401, 417, 420, 431, 432, 433

PEP 421, 461
PHIL 204, 207, 245, 315, 333, 334, 335
POLS 341, 342, 434, 443
PSYC 306, 307, 309, 311
RED 373
ROML 200
RTVF 255 or 365; 261, 264, 360, 460, 465, 466
RUSN 313, 415, 431, 432
SOC 202, 210, 231, 301, 311, 312, 314, 315, 316, 317, 318, 331, 334, 342, 352, 361, 403, 404, 413, 415, 416, 417, 418, 453, 460, 463
SPAN 301, 371, 377, 378
SSM 421, 425
TECH 152 or 322
THEA 350, 353, 447
VCT 203, 208, 282, 386, 433, 438, 460
WS 200, 300

In both the major or minor, not more than 15 credits may be taken in any one department other than POPC. The student is expected to take as many courses in as many different departments/schools as feasible while at the same time completing course requirements for the program.

Minor (30 hours; 20-21 hours in required POPC courses and 9-10 hours selected from POPC courses or from the list of electives above or both)

Required courses. POPC 160, 165, 370 or 470; one of the following: 360, 426, 460; and one of the following: 250, 350, 355. POPC 220 and 400 are recommended.

Psychology

259 Psychology Building, 372-2301

Major (45 hours in psychology and a minor or 36 hours in cognate fields)

A psychology major may minor in any department in which arts and sciences credit is given. A student who elects a cognate minor should select courses from at least three of the following fields in addition to the arts and sciences group requirements: BIOL, CHEM, CS, ECON, MATH, PHIL, PHYS, SOC.

First year
PSYC 201 and 270 (9)

Second year
PSYC 271 and 290 (8)

Third year
At least two 300-level laboratory courses
PSYC electives

Fourth year
At least 15 hours of 400-level courses
PSYC electives

Minor (30 hours in PSYC)

Other programs

The Bachelor of Arts program in psychology is primarily designed for the student interested in psychology as the focus of a liberal education. There is also a Bachelor of Science program in psychology offered by the College of Arts and Sciences that is designed for the student who is preparing for graduate study. Other programs in psychology are available through the College of Education.

Russian

128 Shatzel Hall, 372-2369

Major (30 hours beyond RUSN 202 (or equivalent) and including RUSN 317, 3 and 319)

Minor (18 hours beyond RUSN 202)

Other programs

Programs in Russian also are offered by the College of Education.

Russian Studies

241 Williams Hall, 372-2921

Planned program

Russian studies is an interdisciplinary program which examines Russian and Soviet society, politics, and culture. The program aims to develop reading and conversational skills in the Russian language and a knowledge of Russian and Soviet society. The student selects either a humanities or social science option and completes courses in six areas: preparatory studies, language studies, concentrated studies, supporting studies, integrative studies, and applied studies.

Preparatory studies (18-24 hours from the following:)

AERO 201
ECON 202, 203
GEOG 121
HIST 151, 152, 205, 206, 280
PHIL 101, 204, 230
PSYC 201
SOC 101, 231
THEA 141
STAT 211
ART 101, 102
ENG 200, 262
POLS 101, 290
MIS 200
SPCH 102
IPCO 203

Many of these courses will also partially fulfill a student's general education group requirements.

Language studies

At least nine hours of Russian language beyond RUSN 202. The student is urged to take RUSN 317 and 318 (composition and conversation) if graduate study or study abroad is contemplated.

Concentrated studies (26-36 hours in at least three, and preferably four, of the following disciplines: ECON, GEOG, HIST, POLS, RUSN)
ECON 474

GEOG 341, 342
HIST 469, 470, 471, 490, 491, 495
POLS 354, 453, 454, 470, 490
RUSN 311, 312, 313, 315, 317, 318, 319, 331, 401, 402, 403, 417, 431, 432, 480

Supporting studies (12-22 hours in one or two of the following disciplines:)

ART 455, 456, 457
ECON 351, 372
FREN 371, 372
GEOL 421
HIST 438, 444, 448, 449, 453, 454, 483, 486, 491, 497, 552, 562
JOUR 435
MGMT 360
PHIL 312, 325, 418, 432
POLS 301, 361, 371, 460, 470, 471, 473, 475
SOC 301, 302, 317, 331, 352, 361, 369, 370
IPCO 303
RTVF 464
BA 390

ENG 322, 419
EOG 452
ERM 315
L&EM 404
MUCH 101, 221, 222, 223
PSYC 311, 312
THEA 348

Independent study

The above courses are suggested; the adviser may approve others.

Integrative studies (4-8 hours of seminar, colloquium, or independent study)

Applied studies

These place the student in contact with practical situations, such as serving as a Russian language guide or working in a Slavic-language research center during the summer.

Opportunities may be arranged for study or travel in the USSR.

Sociology

45 Williams Hall, 372-2294

Major (48 hours)

SOC 101, 369, and 370
SOC 302 or 303

SOC electives

PSYC 270 and 271; or STAT 211 or 212; or MATH 441 and 442 will be accepted as meeting the requirements for SOC 369.

Students who anticipate further study in sociology are strongly advised to consider SOC 303 and 480 in addition to required courses.

Electives are generally chosen to serve student interests. Students should consult the department adviser as needed. In special cases, a limited substitution of courses in related behavioral science departments may be permitted in the major requirements.

Minor (30 hours)

Other programs

A program in sociology also is offered through the College of Education.

Spanish

122 Shatzel Hall, 372-2667

Major (40 hours beyond SPAN 202)

SPAN 351, 352, 360, 367, 368, and 371
SPAN 377 or 378

Electives including a minimum of four 400-level courses

Minor (30 hours beyond SPAN 202)

SPAN 351, 352, 360, 367, 368, and 371
SPAN 377 or 378

Electives to include two 400-level courses

Other programs

Programs in Spanish also are available through the College of Education.

Speech Communication

The Bachelor of Arts in speech communication offers five concentrations: radio-television-film, interpersonal and public communication, theatre, communication disorders, and a transdisciplinary program.

Communication Disorders

338 South Hall, 372-2223

Major (86 hours)

First year (16 hours)

IPCO 305 or 306 (4)

SPCH 102 (4)

CDIS 223 and 226 (8)

Second year (32 hours)

THEA 202 or 340 (4)

CDIS 324, 330, and 333 (12)

IPCO 203 or RTVF 260 (4)

PSYC 201, 270, and 305 (12)

Third year (23 hours)

CDIS 325, 328, 331, 332, 391, and 422 (23)

Fourth year (15 hours)

CDIS 424, 426, 427, and 433 (15)

Minor (56 hours)

First year (4 hours)

SPCH 102 (4)

Second year (24 hours)

CDIS 223, 226, and 333 (12)

PSYC 201, 270, and 305 (12)

Third year (20 hours)

CDIS 324, 325, 330, 331, and 332 (20)

Fourth year (8 hours)

CDIS 328 and 433 (8)

Interpersonal and Public Communication

303 South Hall, 372-0031 or 372-2823

Major (56 hours)

SPCH 102 (4)

RTVF 260 (4)

CDIS 223 (4)

THEA 141 (4)

IPCO 305 (4)

IPCO electives (36)

Minor (36 hours)

SPCH 102 (4)

IPCO 305 (4)

IPCO electives (24)

THEA 141 or CDIS 223 or RTVF 260 (4)

Radio-Television-Film

420 South Hall, 372-2138

Major (56 hours)

SPCH 102 (4)

RTVF 260, 262, 263, 364, 460, 464, 465, and 466 (32)

CDIS 223 (4)

THEA 252 (4)

IPCO 305 (4)

Electives (8)

Minor (36 hours)

IPCO 305 (4)

SPCH 102 (4)

RTVF 460, 465, or 466 (4)

RTVF 260, 262, 263, and 464 (16)

THEA 141 or CDIS 223 or IPCO 306 (4)

Electives (4)

Theatre

312 South Hall, 372-2523

Major (56 hours)

SPCH 102 (4)

RTVF 260 (4)

CDIS 223 (4)

THEA 347 or 348 (4)

THEA 145, 202, 241, 243, and 341 (19)

IPCO 305 (4)

THEA electives (18)

Minor (36 hours)

IPCO 305 (4)

SPCH 102 (4)

THEA electives (24)

CDIS 223 or RTVF 260 or IPCO 306 (4)

Transdisciplinary Major

109 South Hall, 372-2136

Major (56 hours)

SPCH 102 (4)

RTVF 260 (4)

CDIS 223 (4)

THEA 141 and 202 (8)

IPCO 305 (4)

Electives concentrated in at least two program units of the School of Speech Communication (32)

Minor (36 hours)

IPCO 305 (4)

SPCH 102 (4)

THEA 141 or CDIS 223 or RTVF 260 (4)

Electives in at least two program units of the School of Speech Communication (24)

Other programs

Programs leading to the Bachelor of Arts in Communication degree also are offered by the College of Arts and Sciences through the School of Speech Communication. Additional programs in speech and speech and hearing therapy are available through the College of Education.

Statistics

450 Mathematical Sciences Building, 372-2636

This major should be combined with a minor or major in an area of application or technique, such as psychology, science, computer science, or business.

Major (51 hours)

MATH 131, 231, 232, 233, 332, 441, 442, and 443 (35)

MATH 430 or 465 (4)

Three courses from the following, with at least two from STAT (STAT 402 and MATH 432 recommended):

MATH 432, 445, 451, 461

CS 440, 442

STAT 402, 404, 406, 408, 410, 412, 414

Other programs

The College of Arts and Sciences also offers a program in statistics leading to the Bachelor of Science degree. A program in statistics is also offered by the College of Business Administration.

Women's Studies

222 Administration Building, 372-2620

Planned program

Women's studies is an interdepartmental and interdisciplinary planned program designed to help students understand crucial issues in their lives and to help prepare them for a variety of careers. Women's studies is a generic term for all types of research, analysis, and speculation designed to recover women's experiences in the past, examine their experiences in the present, and chart directions for their future. It embraces both the endeavor to find out what is not known and the endeavor to evaluate what is believed about the achievements of women individually and collectively, about the roles women do and might perform, and about the nature of

women and the ways it has been imagined in our own and other cultures.

All major and minor programs are individually planned by the student and the director, in consultation with an adviser from the area of concentration.

Major (60 hours minimum)

Eight courses from at least six departments, chosen from the following:

BA 305/HOEC 305
EDFI 460
ENG 200 and 423 (women's topics)
ETHN 300 (women's topics)
HED 301
HIST 326
HOEC 105, 302, 426, 427
IPCO 406 (women's topics)
PHIL 245
POLS 434
POPC 230 and 460 (women's topics)
PSYC 306 and 307
ROML 491 (women's topics)
PSYC 306 and 307
ROML 491 (women's topics)
SOC 300, 361, 460, 480, 490 (women's topics)
SSM 425
WS 300 and 490

A 24-hour concentration in one of the arts and sciences departments listed above;
WS 200 and 400

Minor (22 hours of course work in women's studies and WS 200 and 400)

Bachelor of Science Degree

Each student must complete the group requirements listed below preferably in the freshman and sophomore years and must satisfy the requirements for a major and minor area of specialization as outlined. Every student, however, must take English and physical education in the first year. The major or minor may be started in the first year, but final selection of the major may be made as late as the junior year.

A Bachelor of Science degree is only available in biological sciences, chemistry, computer science, environmental science, geology, mathematics, physics, psychology, or statistics. The student also completes a minor area of specialization as outlined below.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 112 or to demonstrate by examination a proficiency in written expression equivalent to that attained by the student who completes that course. A penalty is imposed if ENG 112 is not completed within the first 40 hours. See page 8. SPCH 102 is recommended for each student.

Group II: Foreign Language and Cultural Experience

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (20 hours minimum in same language area, or fewer by advanced placement).

German, Japanese, Russian

Completion of GERM 101, 102, and 103 plus a minimum of eight additional hours from: GERM 100, 117, 118, 119, 201, 202, 217, 231, 331, and/or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 103, 201, and 202; or

Completion of RUSN 101, 102, and 103 plus a minimum of eight additional hours from: RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331, and/or RUSN 311, 312, 313.

Romance languages (French, Italian, Latin, Spanish)

Option I

FREN 101, 102, 103, 201, and 202; or ITAL 101, 102, 103, 201, and 202; or LAT 101, 102, 103, 201, and 202; or SPAN 101, 102, 103, 201, and 202.

Option II: One of the following:

FREN 111, 112, 113, 211, and 212; LAT 101, 102, and 103 and two of: LAT 141, and/or 142 and/or 201; SPAN 111, 112, 113, 211, and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Group III: Mathematics and Sciences: Biological Sciences, Chemistry, Computer Science, Geology, Mathematics and Statistics, Physics, Psychology

A student is required to complete a minimum of 65 hours of credit, including:

1. a major in biological sciences, chemistry, computer science, environmental science, geology, mathematics, physics, psychology, or statistics;
2. a minimum proficiency in mathematics equivalent to MATH 131;* or
3. a laboratory sequence in one of the sciences. (A list of approved courses is available in the office of the College of Arts and Sciences.)

Certain science courses numbered 100 do not apply toward a student's degree requirements if credit has been granted for the introductory laboratory course in the same science. See departmental listings in the course descriptions for specific applications.

Group IV: Social Sciences: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology

Each student is required to complete four courses in one or more of these areas. A student who includes psychology courses in Group III may not include psychology courses in this group. Courses taken in the student's major may not be counted to satisfy this group. A list of approved ethnic studies courses is available in the office of the College of Arts and Sciences.

Group V: Arts and Humanities

Each student is required to complete one course in literature (American, English, or foreign), one course in the fine arts (art, music, theatre, television and film), and two additional courses from the following areas: ART 101, art history; American, English, or foreign literature; American studies; ethnic studies; music appreciation, music history, music literature; philosophy; popular culture; drama, history of public address; women's studies. It is recommended that philosophy be one of these areas. A list of courses approved for general education Group V requirements is available in the office of the College of Arts and Sciences. Courses taken in the student's major may not be counted to satisfy this group.

Bachelor of Science: Majors and Minors

By the middle of the second year most students select a major and minor subject. The number of hours required for a major or minor varies with departmental requirements but is at least 48 hours in the major and 30 hours in the minor except as indicated in the following sections. In arranging courses in the minor field, a student should consult the department concerned.

These outlines represent the usual sequences, but you may modify these upon departmental approval to meet individual needs.

Individualized Planned Program Option

For the student whose educational objectives cannot be met by one of the departmental majors or minors or by one of the planned programs, the following option is available. The student may create an individualized planned program in consultation with a faculty adviser or advisers to substitute for the major or minor or both. A student who has earned at least 45 hours of credit and who needs at least 45 hours to complete the program may petition the Academic Appeals Board of the college by presenting a statement of rationale for an individualized planned program as well as a detailed list of courses to be taken. Upon approval, the student is obligated to complete the program as planned unless changes are approved by the Office of the Dean. The group requirements remain the same.

*See MATH course descriptions for placement in MATH 130/131, or Math Department for placement test.

Biological Sciences

11A Life Science Bldg., 372-2058

Major (48 hours)

First and second years

BIOL 201, 202, and 203 (15)
CHEM 121, 122, and 123 (15)

300-level BIOL courses as required for the student's program

Third and fourth years

One course in organic chemistry (CHEM 306 or CHEM 343, 344, and 345) (5-14)

MATH through MATH 131 or equivalent

PHYS 214 and 215 (PHYS 216 optional) (10-15)
A minimum of 15 hours at the 400-level and electives in BIOL.

At least one course in biochemistry is strongly recommended.

At least one course in each of the following groups:

Group 1: Biology of Organisms

BIOL 220, 313, 322, 331, 332, 343, 405, 406, 409, 410, 414, 415, 416, 421, 424, 426, 431, 432, 433, 434, 435, 440, 472, 473, 474, 475, 476, 477

Group 2: Ecology and Behavior

BIOL 321, 354, 412, 420, 422, 425

Group 3: Genetics and Evolution

BIOL 350, 447, 449, 451

Group 4: Cell Biology and Physiology

BIOL 407, 408, 411, 413, 417, 418, 419, 436, 438, 439, 443

Minor (30 hours)

First and second years

BIOL 201, 202, and 203 (15)
CHEM 121, 122, and 123 or equivalent (15)

Third and fourth years

Electives in BIOL (15)

Microbiology

217 Life Sciences Bldg., 372-2332

BIOL 201, 202, 203, and 313 (20)

CHEM 121, 122, 123, and 201 (20); or CHEM 131, 132, and 133 (15)

CHEM 308 and 309, or CHEM 445 and 447 (5-6)

CHEM 343, 344, and 345 (14)

MATH equivalent to MATH 131

PHYS 214, 215, and 216 (15)

BIOL 490 (seminars in microbiology) and BIOL 470 as approved by advisor

A minimum of 28 hours to be selected from the following: BIOL 405, 406, 407, 409, 410, 421, 424, 426, 436, 439, 443

Other programs

Programs in biology are offered also through the College of Education. A program in applied microbiology is available through the College of Health and Community Services.

Chemistry

110 Hayes Hall, 372-2031

Major (48 hours)

A chemistry major may follow several programs of study depending on career aspirations. All chemistry majors must take the following:

CHEM 121, 122, 123, and 201 (20); or CHEM 131, 132, and 133 (15)

CHEM 343, 344, and 345 (14)

CHEM 321 and/or 450 and/or 451 (8-9)

CHEM 352, or CHEM 431 and 432 (5)

PHYS 215, 216, or 233 (233 is preferred) should be taken by the end of the second year (5).

GERM or RUSN should be selected as the foreign language. MATH 232 should be completed by the end of the second year, except in the least rigorous major.

CHEM 313, 395, 413, and 483 may not be included in the 48 hours.

The following program will meet American Chemical Society professional training standards and is the recommended program for students who plan professional careers in science.

First year

CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

MATH 131 and 231 (10)

Second year

CHEM 201 (for those having taken CHEM 123) (5)

PHYS 131, 232, and 233 (15)

CHEM 343, 344, and 345 (14)

MATH 232 and 233 (9)

Third year

CHEM 431, 432, 433, 434, and 435 (14-15)

Additional courses chosen from CHEM 413 (highly recommended), 436, and 441 (5-8)

Fourth year

400-level courses including the following:

CHEM 450 (5)

MATH 332 or PHYS 441 (4)

CHEM 460 and 461 (7), or CHEM 445 and 447 (8)

Additional recommended courses include CHEM 440 and 451 (8). The additional third- and fourth-year courses need to total a minimum of 9 credit hours of lecture and 6 credit hours of laboratory (CHEM 413 is considered a laboratory credit to a maximum of 3 hours toward the 6 hours of laboratory).

A student who wishes a more limited major but one that is still adequate for advanced study or professional work in chemistry follows the same schedule during the first three years as given above.

Fourth year

CHEM 450 or CHEM 451 (or, less desirably, CHEM 321) (4-5)

Electives from 400-level CHEM

This program also gives excellent preparation for premedical students and other preprofessionals who anticipate possible research careers.

The least rigorous major is useful for certain preprofessional (pre dental or pre medical) programs or for preparation for limited positions in industry or government.

First year

CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

MATH 130 and 131 (10)

Second year

CHEM 201 (for those having taken CHEM 123) (5)

CHEM 343, 344, and 345 (14)

PHYS 215 and 216 (10) or PHYS 233 (5)

Third and fourth years

CHEM 352, or CHEM 431 and 432 (5)

CHEM 321 or 450 (4-5)

Approved CHEM courses to a minimum of 48 hours; at least one CHEM course must be 400 level (not CHEM 413)

Biochemistry Specialization

Chemistry majors preparing for graduate study or research in the health related academic area requiring biochemistry should take: CHEM 445, 446, 447, 449; BIOL 201, 202, 203, 313, 350, and 411 and/or 430. CHEM 413 is recommended.

To complete either a standard chemistry major or the more rigorous ACS major, the student should consult the guidelines above for additional courses that are required to complete the major program of choice.

The student is urged to seek advice from departmental advisers at the chemistry office before planning an academic program, and at regular intervals thereafter. Detailed supplements to this publication are available in the chemistry office that describe courses, programs (including graduate), and professional requirements.

Minor (30 hours)

First year

CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

Second year

CHEM 201 (for those having taken CHEM 123) (5)

CHEM electives

Third and fourth years

CHEM electives

CHEM 313, 395, 413, and 483 cannot count toward the 30 hours required.

Other programs

Programs in chemistry also are offered by the College of Education.

Computer Science

207 Mathematical Sciences Building, 372-2337

Major (48 hours)

CS 101 or 103 (4-5)

CS 104, 201, 202, 205, 305, 306, 307 (28)

MATH 131 and 231 (10)

MATH 222 or 332 (4)

CS electives, including three CS courses at the 400 level (16)

The following courses may not be applied to the 48-hour major requirement: CS 100, 180, 260, 390, 400, 490.

Business Systems Specialization

A student interested in the application of computer science to business systems may take ECON 202 and 203 as part of the group IV requirement and may also wish to consider the following electives: ACCT 221 and 222, MIS 471 and 473, FIN 300, MGMT 300 and 305, and MKT 300.

Microcomputer Systems Specialization

A computer science major may choose to specialize in microcomputer systems. For this program, no minor is required. The student should include CS 428 in the computer science major. In addition, the following courses must be taken:

PHYS 216, 303, 428 (14)

ET 358, 453 (9)

ET 490 or PHYS 429 (1-5)

A total of 26 hours is required.

Minor (28 hours)

CS 101 or 103 (4-5)
 CS 104, 201, and 205 (12)
 CS electives (11-12)

The following courses may not be included in the 28-hour minor requirement: CS 100, 180, 260, 390, 400, 490.

Recommended Electives

ACCT 221, ACCT 222, ENG 488, MATH 247, PHIL 303 and also that the natural science requirement be completed by taking PHYS courses.

Other Programs

A Bachelor of Arts in computer science also is offered by the College of Arts and Sciences. In addition, programs in computer science are available through the College of Education. A program in management information systems is offered by the College of Business Administration.

Environmental Science

124 Hayes Hall, 372-0207

Planned program, no minor required

This program emphasizes the multidisciplinary nature of environmental issues and the role of the natural sciences in addressing and solving environmental problems. Students receive a basic understanding of the sciences, particularly biology and chemistry. Additional courses in the social sciences and humanities are included to help the student obtain a holistic view and an understanding of the overall context in which environmental issues are placed. Students also take courses in an area of emphasis such as ecology, chemical analysis, energy, and computer modeling. Basic requirements are listed below. Close consultation with the staff of the Center for Environmental Programs is essential.

ENVS 101
 ENVS 301, 401, 402 (choose two)
 CS 100 or 101
 ECON 200 or 202
 SOG 101 or PSYC 201
 BIOL 201, 202, and 203
 CHEM 121, 122, and 123
 GEOL 103, 104
 MATH 131
 ENG 488

Two courses from: PHYS 214, 215, 216, 101E, 131, 232, or CHEM 306 and one PHYS course
 MATH 115 or MATH 247 and 347 or PSYC 270 and 271 or SOC 369

IPCO 203, 204, 205 (choose two)

Five courses from: ENVH 404*, LEGS 431*, PHIL 332*, PSYC 440, POLS 332, 335, 336, 337, 401, HIST 338, ENVR 421, GEOG 333, 321, 412, 331, or 442, 426, SOC 300, 312, 315
 (No more than two courses with an asterisk may be chosen.)

Twenty hours from an area of emphasis such as energy use, ecology, chemical analysis, geography/geology, coastal studies, computer modeling. The area of emphasis is planned by the student with faculty members and academic advisers to match the student's occupational goals. Students should file an approved course list for their area of emphasis no later than the end of the junior year. An internship is highly recommended.

Other programs

The College of Arts and Sciences offers a Bachelor of Arts planned program in environmental policy and analysis. Environmental programs are also available in the College of Education and the College of Health and Community Services. Students should contact the Center for Environmental Programs, 124 Hayes Hall, 372-0207, for help in selecting a program that most closely meets their goals.

Geology

64 Overman Hall, 372-2886

Major (40 hours above 100-level)

GEOL 302, 303, 307, 308, 309, 311, 312, 320, 321, 412, (40)
 GEOL 494 (or the equivalent in geology field work with the approval of the undergraduate committee of the department (5-9)
 MATH 131 (5)
 CHEM 121, 122, and 123 (15); or CHEM 131 and 132 (10)
 PHYS 214 (5)

Geochemistry

A student specializing in geochemistry should take the following courses:
 GEOL 307, 308, 309, 311, 312, 431, 494 (32)
 GEOL 320 or 321 (4)
 PHYS 131, 232, and 233 (15)
 MATH 131, 231, and 232 (15)
 CHEM 121, 122, 123, and 201 (20); or CHEM 131, 132 and 133 (15)
 CHEM 306, 431, 432, 434, 435, and 436 (20); or CHEM 352, 343, 344, and 345 (20)
 No minor is required.

Geophysics

A student specializing in geophysics should take the following courses:
 PHYS 131, 232, 233, 234 plus a minimum of four additional hours of upper-level courses (24)
 GEOL 320 or 321 (4)
 MATH 131, 231, 232, and 233 (19)
 GEOL 307, 308, 309, 311, 393, 412, 432, 494 (32-35)
 CHEM 121, 122, and 123 (15); or CHEM 131 and 132 (10)
 CS 101 (5)
 No minor is required.

Paleobiology

A student specializing in paleobiology is required to take the following courses:
 GEOL 302, 303, 307, 308, 311, 412, 419, 433, 472, 494, or 496 (37-46)
 CHEM 121 or 131 (5), and CHEM 122 or 132 (5)
 MATH 131 (5)
 GEOL 490 (approved senior research problem)
 BIOL 201, 202, 203, and a minimum of two additional BIOL courses
 One course in statistics (4-5)
 Electives in geology and biological sciences will be recommended on an individual basis. No minor is required.

Minor (30 hours)**Other programs**

A program in geology leading to the Bachelor of Arts also is offered by the College of Arts and Sciences.

Mathematics

450 Mathematical Sciences Building,
 372-2636

Basic requirements for the major and minor are listed below along with several recommended selections of electives for the major. These options provide an opportunity to plan a major that is appropriate background for entry into specific areas of application or graduate study.

Major (51 hours)

MATH 131, 231, 232, 233, 332, and 339 (27)
 Six courses* at the 300 or 400 level to total 51 hours including:

A:** MATH 403 or MATH 432
 B:** MATH 430 or MATH 434 or MATH 465
 C: two courses from each of two groups below or three courses from one group.***
 MATH 401, 403, 404, 432
 MATH 337, 437, 439
 MATH 451, 452
 MATH 402, 405
 MATH 313, 421, 422
 MATH 430, 434, 461, 465
 MATH 441, 442, 443, 445

Minor (31 hours)

MATH 131, 231, 232, 233, and 332 (23)
 Two 300- or 400-level MATH electives* (8)

First Year

MATH 131, 231, and 232
 CS 101 and 104 recommended

Second Year

MATH 233 and 332; and MATH 337 or 339
 PHYS 131, 232, and 233 recommended

Recommended Electives

Actuarial Science (Insurance) Option
 MATH 226, 426, 430, 432, 441, 442, 443, 451
 INS courses
 CS 101, 104, 440, 442
 ACCT 221, 222, or 320

Engineering and Physical Science Application Option

MATH 337, 430, 432, 434, 441, 452, 461
 PHYS 131, 232, 233
 MATH 437 or 439
 CS 101 and 104

Two electives in physical science

Numerical and Statistical Application Option
 MATH 337, 430, 432, 441, 442, 443, 451, 452
 CS 101, 104, 440, 442
 PHYS 131, 232, 233

Pregraduate Study in Mathematics, Statistics, Computer Science, and Operations Research

MATH 403, 430, 432, and 465 are basic to all graduate study in the mathematical sciences. The remaining electives should be chosen according to one's area of interest after consulting with a department adviser.

Other programs

A Bachelor of Arts in mathematics also is offered by the College of Arts and Sciences. In addition, programs in mathematics are available through the College of Education.

Physics

270 E Overman Hall, 372-2422

Major (48 hours)

PHYS 313 (3) and PHYS 413 (3)
 300- and 400-level courses in PHYS (17-18)
 PHYS 131, 232, 233, and 334 (20)
 PHYS 303 or 418 (4-5)

*except math 222, 226, 395, 414, 415, 489, 490, 495.
 **may be modified in a planned program approved by an adviser and the department.
 ***Some courses may not be offered every year.

It is recommended that a student majoring or minoring in physics take the following:

CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

DESN 104 (4)

MATH 332 (by the end of the second year) (4)

For students expecting to continue to graduate school, the following are recommended: PHYS 303, 416, 417, 418, 419, 441, and 442 (29)

PHYS 413 (at least 3)

Microcomputer Systems Specialization

A student may elect to specialize in microcomputer systems. This student should include PHYS 303, 428, and 429 as part of the physics major. In addition, the following courses must be taken:

CS 101 or 103 (4-5)

CS 104, 201, 202, 210, 307, and 428 (24)

MATH 131 and 231 (10)

MATH 232 or 332 (4-5)

No minor is required.

Minor (34 hours)

PHYS 131, 232, 233, and 334 (20)

PHYS 313 (3)

300- or 400-level courses in PHYS (12)

Other programs

Programs in physics also are available through the College of Education.

Psychology

259 Psychology Building, 372-2301

Major (45 hours in PSYC and either 36 hours in cognate fields or a minor in a second department. The 36 hours in cognate fields should be selected from at least three of the following fields: BIOL, CHEM, CS, ECON, MATH, PHYS, SOC, PHIL)

Note: The Psychology Department departments from the arts and sciences group requirements in the following aspects:

Group III (science and mathematics): a minimum of 65 hours must be completed in two or more of the following fields: BIOL, CHEM, CS, GEOL, MATH, PHYS, PSYC. No more than 36 hours of PSYC may be applied to this group. Each student must demonstrate proficiency equivalent to completion of MATH 232. Additional preparation in MATH is advisable for the student planning to take advanced graduate work in psychology. Particularly recommended are MATH 233, 332, 337, 403, 404, 430, 432, 434, 441, 442, 443, 465, 466. *Group IV (social sciences)* PSYC courses may not be applied. *Group V (humanities):* courses in logic and the philosophy of science are recommended.

First year

PSYC 201 and 270 (9)

Second year

PSYC 271 and 290 (8)

300-level PSYC laboratory course

Third year

Two additional 300-level PSYC laboratory courses

PSYC 470

Electives

Fourth year

At least four 400-level PSYC courses

PSYC electives

Minor (30 hours)

Other programs

The Bachelor of Science program in psychology is designed for the student who is preparing for graduate study. There is also a Bachelor of Arts program in psychology offered by the College of Arts and Sciences primarily designed for the student interested in psychology as the focus of a liberal education. Other programs in psychology are available through the College of Education.

Statistics

450 Mathematical Sciences Building, 372-2636

This major should be combined with a minor or major in an area of application or technique, such as psychology, science, computer science, or business.

Major (51 hours)

MATH 131, 231, 232, 233, 332, 441, 442, and 443 (35)

MATH 430 or 465 (4)

Three courses from the following, with at least two from STAT (STAT 402 and MATH 432 recommended):

MATH 432, 445, 451, 461

CS 440, 442

STAT 402, 404, 406, 408, 410, 412, 414

Other programs

The College of Arts and Sciences also offers a program in statistics leading to the Bachelor of Arts degree. A program in statistics is also offered by the College of Business Administration.

Bachelor of Liberal Studies Degree

205 Administration Building, 372-2015

To be eligible for admission to the Bachelor of Liberal Studies degree program, a student must have completed at least 45 hours of credit with a 2.0 accumulative grade point average. Applications for admissions are available in the college office and must be returned to the liberal studies adviser within the first seven calendar days of the quarter in which admission is desired.

To obtain this degree the student must satisfy the general requirements listed on page 7 and complete in residence at least 45 hours of credit immediately preceding graduation after having been admitted to the program.

Thirty hours credit of non arts and sciences courses may be included in the degree program. (A list of approved non arts and sciences courses is available in the college office.) No more than 40 hours of credit in any one department may be counted toward the degree.

Bachelor of Fine Arts Degree

103 Hanna Hall, 372-0379

Each student must complete the group requirements listed below preferably in the freshman and sophomore years and must satisfy the requirements for a major in creative writing and a minor in an area of specialization.

General Education Group Requirements

Group I: English Composition

Each student is required to complete ENG 112 or demonstrate by examination a proficiency in written expression equivalent to that attained by the student who completes that course. (A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8.)

Group II: Foreign Language or Cultural Experience

Each student is required to demonstrate a proficiency in a language and language area by one of the options listed below:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (20 hours minimum in same language area, or fewer by advanced placement).

German, Japanese, Russian

Completion of GERM 101, 102, and 103 plus a minimum of eight additional hours from: GERM 100, 117, 118, 119, 201, 202, 217, 231, 331; and/or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 103, 201, and 202; or

Completion of RUSN 101, 102, and 103, plus a minimum of eight additional hours from RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331, and/or RUSN 311, 312, 313.

Romance Languages (French, Italian, Latin, Spanish)

Option I

FREN 101, 102, 103, 201, and 202; or ITAL 101, 102, 103, 201, and 202; or LAT 101, 102, 103, 201, and 202; or SPAN 101, 102, 103, 201, and 202.

Option II: one of the following:

FREN 111, 112, 113, 211, and 212; or LAT 101, 102, and 103, and two of: LAT 141, and/or 142, and/or 201; or SPAN 111, 112, 113, 211, and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

Group III: Biological Sciences, Chemistry, Geology, Mathematics and Statistics, Physics

Each student must complete two courses in one or more of these subjects, at least one quarter of which must be in a science with laboratory experience. Certain science courses numbered 100 do not apply toward a student's degree requirements if the student also has credit for the introductory laboratory course in the same science. See departmental listings in the course descriptions for specific applications.

Group IV: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology

Each student must complete three courses in one or more of these subjects. A list of approved ETHN courses is available in the office of the College of Arts and Sciences.

Group V: Art, Music, Philosophy, Popular Culture, Speech Communication

Each student must complete five courses in this area, at least one from each of four disciplines above. A list of courses approved for the Group V requirements is available from the College of Arts and Sciences.

Creative Writing

Enrollment in the creative writing major is dependent upon an ACT score of 22 or higher in English, or consent of the creative writing staff.

Major (52 hours)

ENG 261, 262, or 263 (4)
ENG 308 (10) and 407 (10)
ENG 208, 209, 320, 323, 330, and 333 (24)
ENG 205 or 206 (4)

Minor (34 hours)

ENG 112, 208, 209, 308, and 407 (22)
ENG 205 or 206 (4)
ENG 320 or 323 (4)
ENG 330 or 333 (4)

Subjects Offered as Minors Only

The College of Arts and Sciences offers several minors that are not available as majors.

Astronomy

270 Overman Hall, 372-2422

Planned program to substitute for minor.

Five courses chosen from the following:

ASTR 201, 212, 305, 307, 309, 403, and 407
Plus 12 additional hours of PHYS

This program is intended for students with an avocational interest in astronomy. Students planning a career in astronomy should major in physics and choose astronomy courses as electives.

Other programs

A program in astronomy also is offered by the College of Education.

Italian

122 Shatzel Hall, 372-2667

21 hours beyond ITAL 202
ITAL 361, 362, 371, and 372

Other programs

A program in Italian also is offered by the College of Education.

Library and Educational Media

216 Hayes Hall, 372-2461

(30 hours)
L&EM 203, 403, 407, 408, 428, 491 and 4 hours of L&EM electives.

This minor prepares students for employment in non-school settings such as libraries, and in instructional media, and information science, as well as for graduate school in library science.

Other programs

Both a major and a minor in library and educational media are offered by the College of Education.

Linguistics

305-A University Hall, 372-2576

Planned program to substitute for minor.

An interdepartmental and interdisciplinary program designed for the student who is interested in linguistics primarily for its relevance to the major field. The program requires 30 hours of course work appropriately selected from the courses listed below. Courses from the strongly recommended and the elective sections must be selected in such a way that three disciplines other than the student's major field of study are represented. No work can be counted both for the major and the minor at the same time.

Required courses

LING 310 and 490
One of the following (remainder may be used as electives):
GERM 482
ENG 380 (with special permission only)
SPAN 455
RUSN 433

Strongly recommended

LING 316 and 317 (presently available at the University of Toledo only)
CS 104
PSYC 421
ENG 481
CDIS 226

Electives

CS 210, 305, 306, 410, 420
FREN 353, 453
LAT 145
PHYS 350
CDIS 223, 324, 333, 422
ENG 290, 344, 482, 490
GERM 100, 319
PHIL 103, 303, 403, 412
PSYC 323, 411

A list of additional elective courses can be obtained from the chair of the steering committee of linguistics.

A student adopting this minor must consult the chair of the steering committee of linguistics, who will assign an appropriate adviser.

Mass Media

Popular Culture Building, 372-2981

Planned program to substitute for minor.

A program designed to give students—as consumers of the mass media—an opportunity to examine the role of the mass media in a democratic society. Primarily for students not planning careers in print, broadcast, or film media, the program consists of a minimum of 30 hours selected from the following courses. At least three departments are to be represented and no more than three courses are to be selected from any one department.

POPC 165, 370, 426
MKT 410
RTVF 255, 260, 460, 465, 466, 469
JOUR 103, 105, 402, 435
POLS 341, 443

Science

205 Administration Building, 372-2015

This minor is offered for the student who receives the Bachelor of Science degree. In place of a conventional minor a student may bring the total in group III (science and mathematics group requirement) to 80 hours by following a program approved by the major adviser. No more than 50 hours in the major field may be applied to this requirement.

Preprofessional Programs

The College of Arts and Sciences provides five kinds of preprofessional programs:

Four-year curricula

These curricula, leading to the bachelor's degree, are planned to prepare the student for admission to a graduate or professional school for further specialized study. Curricular requirements and arts and sciences preparation for some special fields of work are discussed in the following section.

Arts-professional curricula

These are offered in cooperation with the professional schools and colleges of other institutions of higher learning. The student spends three years at Bowling Green before entering a professional school. Upon

satisfactory completion of the first year in the professional school, a bachelor's degree is granted from Bowling Green.

Preprofessional preparation

From two to three years of preprofessional study may be completed at Bowling Green. The student then transfers to a professional school or college to complete a professional program.

Combined curricula

The student may obtain both an arts and sciences degree and an education degree at Bowling Green by following this program.

Combined baccalaureate-master's program

By following this program, the student may finish the course work for a bachelor's degree in less than four complete years and is prepared for early enrollment in a graduate program.

A student who expects to receive a degree by completing one of these curricula must meet all of the requirements for the degree including major, minor, and group requirements.

Four-Year Preprofessional Curricula

Preparation for Business

The College of Arts and Sciences offers a major or minor in either economics or business administration leading to the degree of Bachelor of Arts. The student interested in a career in business should consult the programs offered by the College of Business Administration.

Preparation for College Teaching

The student who wishes to prepare for a career in college teaching should plan on attending graduate school, bearing in mind that many graduate schools require a reading knowledge of one or more of either French, German, or Russian. It may be advantageous to take the combined baccalaureate-master's program described on page 52. Specific curricula for teaching subjects in areas of technology at the community and technical college level are available from advisers in the Department of Home Economics and the School of Technology.

Students preparing for high school teaching should register in the College of Education unless they elect the combined arts-education curriculum described on page 51.

Preparation for Graduate Study

All programs of the College of Arts and Sciences may be used as preparation for entrance to a graduate school. The student should bear in mind that a reading knowledge of one or two modern languages chosen from French, German, or Russian is often required for the doctorate. A knowledge of statistics may be useful.

Preparation for Careers in Home Economics

The College of Arts and Sciences provides a variety of programs in home economics. The usual arts and sciences curriculum is followed with a major or minor in home economics. A student who is interested in teaching home economics in the public school or working as an agricultural extension agent should pursue a program in the College of Education.

Preparation for Library Work

The Bachelor of Arts degree is usually required for admission to a school of library science. A minor in library and educational media is available in the College of Arts and Sciences. The student completing such a minor can obtain a professional degree in library science in one additional year in an approved professional school. The major should be chosen from such fields as English, history, political science, and sociology; for work in special libraries, a major or electives in the sciences may be useful. At least two years of a foreign language is strongly recommended.

Preparation for Professional Work in Mathematics and the Sciences

Professional work in the sciences is available to a student with a strong undergraduate degree program. A student whose academic record permits should consider graduate training.

The Department of Chemistry offers a program which meets the requirements of the American Chemical Society for professional recognition of a graduate.

Preparation for Careers in Actuarial Science

Professional status in the insurance industry as an actuary is attained by passing a series of examinations administered by the Society of Actuaries and the Casualty Actuarial Society. Normally some of the examinations are taken while working for an insurance company. A strong mathematics major is required. A list of recommended courses is listed under the major. Up to four of these examinations can be taken while in school. There is a separate process for pension actuaries.

Preparation for Professional Work in Mathematics and Statistics

For careers in research and higher education, a graduate degree is required. The undergraduate preparation should have both breadth and depth. For careers in the application of mathematics or statistics, it is essential that a strong minor be selected in computer science or a field of application, such as business administration, psychology, physics, or other sciences.

Courses should also be taken to develop communication skills. A graduate degree may not be required, but students with talent should seriously consider graduate work.

Preparation for Public Administration

A student should consult with the Department of Political Science to plan a program of courses in political science and related fields.

Preparation for Religious Work

Most schools of religion recommend that a student have a broad, general education before starting professional training. The major and minor may be chosen from any area of study. A reading knowledge of at least one foreign language is essential. Because the college is affiliated with certain theological seminaries, a student may elect to pursue the arts-professional curricula and complete the degree program while in the seminary. For further information, contact the college office.

Arts-Professional Curricula

It is strongly recommended that the student who expects to enter a professional school first complete a four-year course in the College of Arts and Sciences. A student may desire, however, to secure the degree of Bachelor of Arts or Bachelor of Science, as well as a professional degree, but may be unable to give the time necessary for the completion of both programs. Therefore, combination arts-professional curricula are offered which enable the student to shorten the time required for the two degrees.

Combination curricula are offered in cooperation with the professional schools and colleges of other institutions. These enable the student to shorten the time required for securing the two degrees by substituting the first year of work in a professional college for the fourth year of the course in arts and sciences. These courses vary in length from five to seven years—the first three years being taken in the College of Arts and Sciences and the remainder in an approved professional school. Upon the satisfactory completion of the work of the first year in the professional college, the student is granted the degree of Bachelor of Arts or Bachelor of Science by Bowling Green State University.

Permission to graduate from one of these combination curricula must be obtained from the dean before the end of the junior year. A student in these curricula must:

1. Earn a minimum of 140 hours either in residence or by advanced standing including three hours in PEG 100; at least 90 hours must have been taken on campus at Bowling Green in the student's last two academic years prior to entering the professional school;

2. Earn a point average of at least 2.5 in all courses undertaken in residence;
3. Meet the group requirements of the degree sought;
4. Meet the major and minor requirements of the general curriculum selected.

Other programs

A combined arts-professional curriculum is also offered through the College of Education.

Arts-Engineering Program

270A Overman Hall, 372-2421

The basic science and general education courses required in an engineering curriculum are available at Bowling Green and may be transferred to a college of engineering. However, Bowling Green State University has no college of engineering and so does not offer specialized engineering course work. In an arts-engineering program, a student can earn both a Bachelor of Science degree from Bowling Green and an engineering degree from one of the following Colleges of Engineering, who have indicated their willingness to design such plans for individual students: Michigan State University, Purdue University, New York University, Ohio Northern University, University of Michigan.

In an arts-engineering program, each student's program should be planned almost from the beginning in consultation with the pre-engineering adviser and in coordination with the particular engineering college curriculum. The student usually attends Bowling Green for approximately three years, then at the end of the first year in the professional college transfers credit from the engineering college to receive a Bachelor of Science degree. Similarly, course work credit at Bowling Green is transferred to the engineering college. The total time required to earn an engineering degree may be extended in this program by a semester, quarter, or a few summer sessions, because the requirements of two separate degree programs must be met. Students interested in an arts-engineering program should seek advance curriculum information and admission advice from the appropriate engineering college.

Preparation for Dentistry

519 Life Sciences Building, 372-2232

Admission to dental school is selective and based upon scholarly achievement and aptitude as indicated by scores on the Dental Aptitude Test, which is generally taken in the spring quarter of the student's third year of college. The pre-dental student should select an academic program that provides for an alternate career should acceptance into dental school be denied. The Bachelor of Science degree program can be planned to meet all course requirements for dental school and still provide time for sufficient electives in other areas so that the student may attend graduate school or pursue new career alternatives. There are no preferred majors

for entrance into dental school, although students generally choose biology or chemistry.

Pre-dental students are encouraged to meet frequently with an adviser to insure progress in meeting the designated prerequisites, to prepare for the Dental Aptitude Test, and to make application to dental school.

Recommended course sequence:

BIOL 201, 202, 203, 350, 352, 431, 432, 433
CHEM 121, 122, 123 or 131, 132, 133, 201 if 121 series is taken; 343, 344, 345, 308, 309 (plus 445, 446, 447, 448 if CHEM major)
PHYS 214, 215, 216 or 131, 232, 233
MATH 130 and 131, or 231 and 232 depending on major

A student should take the required courses to complete a major and a minor, as well as the general education requirements for the particular degree program selected, PEG requirements, and electives to total 183 hours. A science minor may be desirable.

Preparation for Law

206 Williams Hall, 372-2030

All accredited law schools in Ohio, like most accredited law schools throughout the country, require a college degree for admission. A college degree is also a prerequisite to taking the Ohio Bar Examination and the bar examinations for most other states.

Beyond the minimum requirements for admission, law schools emphasize the value of a broad, general program of arts and sciences for the prospective law student. Above all, they stress the importance of acquiring certain intellectual skills and abilities rather than a particular body of information. Foremost among these skills are facility in writing and speaking, logical reasoning, and the use of abstract concepts. Because the student can develop these skills in a variety of courses, there is no basis on which to prescribe a rigid and detailed "pre-law curriculum" or any particular major.

Law schools, however, uniformly emphasize the special value of courses in which considerable writing is required. In addition, courses in American government help acquaint the student with the basic legislative, administrative, and judicial processes of our society. Business and economics courses often provide an understanding of business and financial concepts and terms with which the lawyer may deal. Other disciplines, such as history, philosophy, psychology, and sociology, offer concepts, information, and perspectives that are important in dealing with modern legal issues. Finally, pre-law students may wish to take a law course taught by case method in order to discover if their aptitudes lie in this direction.

Preparation for Medicine

519 Life Sciences Building, 372-2232; or 112 Hayes Hall, 372-0288; or 112 Overman Hall, 372-2824

Admission to medical school is selective and is dependent upon scholarship and aptitude as indicated by the scores attained on the Medical College Admission Test, normally taken during the spring quarter of the student's third year. The student should include in the premedical program a course of study to prepare for admission to medical school and for admission to an appropriate graduate school or for an industrial, government, or teaching position in case the first choice cannot be realized. To meet the requirements for admission to most medical schools, the Bachelor of Science curriculum can be modified to include the required courses and still provide the student with enough depth in at least one area for graduate work or for career opportunities if medical school is not attended. There is no preferred major for entrance into medical school. Generally, either chemistry or biology is chosen by the premedical student.

The premedical student is urged to confer frequently with the adviser, particularly with respect to planning prerequisite courses for the Medical School Admission Test and for meeting the admission requirements of the medical school of the student's choice.

Recommended course sequence

BIOL 201, 202, and 203 (15)
CHEM 343, 344, and 345 (14)
CHEM 121, 122, and 123; or CHEM 131, 132, and 133 (15)
GERM 101, 102, and 103 (12)
MATH 130 and 131 (MATH 231 and 232 optional depending upon major) (10-20)
PHYS 214, 215 and 216; or PHYS 131, 232, and 233 (15)
ENG 112 (4)

In addition, a student should plan to take the required courses to complete a major and a minor; general education group requirements for the degree sought; PEG requirements and electives. Total: 183 hours. Note: the science minor may be desirable.

Preprofessional Preparation

Preparation for Engineering

270A Overman Hall, 372-2421

The two-year curriculum outlined below closely parallels the introductory course work of engineering schools, and is designed for the student who expects to transfer to a college of engineering at the end of two years. Since the requirements in different engineering colleges and in different fields of engineering vary considerably, the student should consult with the pre-engineering program adviser early in the freshman year in order to plan a schedule to meet the requirements of the institution and branch of engineering in which or she expects to receive a degree.

Engineering is presently a high-opportunity career area, and a pre-engineering program at Bowling Green offers several advantages, especially for those students

who are uncertain about an engineering specialty. However, students should be advised that all engineering specialties require a high aptitude for mathematics and quantitative reasoning. In order to complete the curriculum below in two years, a student must be qualified to enroll in MATH 131 during the first quarter of the freshman year; this normally requires four years of high school mathematics and good mathematics aptitude.

Recommended course sequence

MATH 131, 231, 232, 233, and 332 (23)
 CHEM 121, 122, and 123 (15)
 DESN 104 and 204 (9)
 PHYS 131, 225, 232, 233, and 334 (23)
 CS 101 or 103 (4-5)
 CS 104 (5)
 ENG 112 (4)
 Electives

Preparation for Mortuary Science

503 Life Sciences Building, 372-0361

The Board of Embalmers and Funeral Directors of Ohio requires a minimum of 90 quarter hours of general education to be eligible to register with the board prior to entering a college of mortuary science. At least 45 hours must be in the following subject areas, with a minimum hourly distribution of: English (12 hours), science (12 hours), social science (12 hours), fine or applied arts (9 hours). For information about colleges accredited by the Commission of Schools of the American Board of Funeral Service Education, write to the agency at 201 Columbia St., P.O. Box 2098, Fairmont, WV 26554.

A cooperative arrangement exists with the Cincinnati College of Mortuary Science, whereby a student can complete three years at Bowling Green, plus the CCMS diploma program and receive a Bachelor of Arts degree with an individualized planned program in mortuary science. For further information, contact G. Lee Caldwell, 205 Administration Bldg., 372-2015.

Preparation for Occupational Therapy

503 Life Sciences Building, 372-0361

Occupational therapy—an auxiliary medical service in which normal activities are used as remedial treatment in the rehabilitation of patients—is being used increasingly in hospitals, schools, rehabilitation centers, and related institutions. Such therapy is prescribed by physicians and applied by the trained therapists as part of the treatment for an adult or a child in the areas of orthopedics, psychiatry, tuberculosis, general medicine, and surgery.

Recommended course sequence

(87 hours)
 ART 102 (5)
 BIOL 104, 331, and 332 (15)
 CHEM 111 (4)
 ENG 112 (4)
 TECH 313 and 457 (8)
 LAT 145 (4)

PHYS 214 (5)
 PSYC 201, 270, 271, 302, and 405 (23)
 SOC 101, 202, and 301 (12)
 SPCH 102 (4)
 PEG 100 (3)
 Electives

In preparing for a career in occupational therapy, the student should complete two years of preprofessional courses, two years of academic instruction in an approved professional school, and 10 months of clinical training.

Preparation for Optometry

112 Hayes Hall, 372-0288

Requirements for admission to the schools and colleges of optometry vary. Typically, they include courses in English, mathematics, physics, chemistry, and biological sciences. Requirements of specific schools should be examined before planning the program for the sophomore year. A list of accredited schools and colleges of optometry in the United States can be obtained from the American Optometric Association, 7000 Chippewa St., St. Louis, MO 63119.

The following two-year pattern coordinates with the program of the School of Optometry of Ohio State University.

Recommended course sequence (93 hours)

CHEM 121, 122, 123, 306, and 308 (24); or
 CHEM 343, 344, and 345 (14)
 PHYS 214, 215, and 216 (15)
 BIOL 201, 202, and 203 (15)
 ENG 112 (4)
 MATH 130, 131, and 231 (15)
 PEG 100 (3)
 Electives

The amount of foreign language to be taken depends on the requirements of the professional school and the student's high school preparation. Students who do not need foreign language courses should substitute those courses which meet the requirements of the professional school they plan to enter.

Preparation for Osteopathy

The requirements and recommendations for entrance to schools of osteopathy are essentially the same as those for medical school.

Preparation for Pharmacy

112 Hayes Hall, 372-0288

All accredited colleges of pharmacy require five years of study to qualify for the pharmacy degree. Two years of the five-year requirement may be satisfied at this University by completing the prepharmacy curriculum outlined below. The state boards of pharmacy usually require a period of practical experience in pharmacy. Students should request information concerning requirements for a certificate to practice pharmacy from the board of pharmacy in the state in which they wish to practice. In Ohio this information may be obtained from the secretary, State Board of Pharmacy, Wyandotte Building, 21 West Broad St., Columbus, OH 43215.

Since colleges of pharmacy vary in their requirements, prepharmacy students should ascertain the requirements of the school they plan to enter before selecting the courses for the second year. The program outlined below prepares the student for transfer to the College of Pharmacy at Ohio State University. It is now possible to enter the College of Pharmacy at Ohio State University after a one-year prepharmacy program.

A list of accredited colleges of pharmacy may be obtained from the American Association of Colleges of Pharmacy, 4630 Montgomery Ave., Suite 201, Bethesda, MD 20014.

Recommended course sequence (93 hours)

BIOL 201, 202, 203 (15)
 ENG 112 (4)
 PHYS 214, 215, and 216 (15)
 MATH 130 and 131 (10)
 PEG 100 (3)
 Electives chosen from social sciences, literature, and philosophy
 CHEM 121, 122, 123, 343, 344, and 345 (29)

Some pharmacy schools require additional calculus.

Preparation for Veterinary Medicine

112 Hayes Hall, 372-0288

Colleges of veterinary medicine require two years of preveterinary medical work for admission; however, often a student is advised to apply after a third year of work or after securing a bachelor's degree. The two-year preveterinary medical program which follows is typical, but colleges of veterinary medicine vary greatly in their requirements. Students should obtain information as early as possible about the requirements of the school where they plan to transfer. A list of accredited colleges of veterinary medicine in the United States can be obtained from the American Veterinary Medical Association, 900 N. Meacham Rd., Schaumburg, IL 60172.

The College of Veterinary Medicine of Ohio State University recommends courses in animal husbandry and related areas which cannot be taken at Bowling Green. It is possible for the student who plans a three- or four-year preveterinary medical program to defer them temporarily by substituting advanced biology courses, but it may be more advantageous for the student to transfer after one or two years to the Agriculture-Veterinary Medicine Program at Ohio State University.

Recommended course sequence (93 hours)

BIOL 201, 202, and 203 (15)
 ENG 112 (4)
 PEG 100 (3)
 CHEM 121, 122, 123, 306, 308, and 309 (26)
 MATH 130 (MATH 124 acceptable for a student who enters with prerequisite for physics) (5)
 PHYS 214, 215, and 216 (15)
 Electives selected to meet requirements of the college of veterinary medicine to be entered.

Combined Curricula

Arts-Education Curriculum

205 Administration Building, 372-2015

The student who desires to take an arts and sciences degree to qualify for certification to teach in the public schools may take work in education after graduation or qualify for the combined degree program outlined here. On the basis of the accumulative point average, a student may register in both the Colleges of Education and Arts and Sciences for the combined degree as soon as eligible.

The student in the dual-degree program leading to the Bachelor of Arts or Bachelor of Science degree from the College of Arts and Sciences and the Bachelor of Science in Education degree from the College of Education must:

1. secure permission of the deans of both colleges before the end of the junior year;
2. maintain an accumulative grade point average of 3.0 or better based upon at least two quarters of work at Bowling Green;
3. complete the requirements of both colleges for the degrees sought;
4. earn at least 213 hours including education courses.

By careful selection of electives, the program in both colleges can be completed in 12 quarters plus one summer. The superior student may increase the number of subjects to be carried each quarter and complete the program in less time.

Other Dual Degree Programs

205 Administration Building, 372-2015

The student who wishes to earn a dual degree involving the College of Arts and Sciences and another undergraduate college within the University may do so by adhering to the following requirements:

1. secure permission to pursue a dual degree program from the offices of both deans before the end of the junior year;
2. complete at least two quarters of University work as a full-time student with at least a 3.0 accumulative grade point average during the two quarters immediately preceding enrollment in both colleges;
3. meet the general education group requirements of both colleges;
4. present to the dean of the College of Arts and Sciences a program of study of at least 30 credit hours, consisting of courses not used to fulfill requirements for the degree being pursued in the College of Arts and Sciences;
5. earn a minimum of 213 quarter hours for graduation.

Certification to Teach in the Public Schools

365 Education Building, 372-0151, and 455 Education Building, 372-0151

The student who holds a bachelor's degree in arts and sciences may become certified to teach in the public schools of

Ohio with a four-year provisional certificate by fulfilling the state requirements for such certification. These requirements and degree-holder program applications are available in the Program Advisement Office of the College of Education, Room 365, Education Building.

Several institutions including Bowling Green offer graduate programs whereby an arts and sciences graduate may take work leading both to certification to teach in the public schools and a master's degree. Announcement of such programs may be inspected in the College of Education, Room 455, Education Building.

Combined Baccalaureate-Master's Programs

3/2 Arts and Sciences-Graduate Business Program

369 Business Administration Building, 372-2488; or 205 Administration Building, 372-2015

The 3/2 Arts and Sciences-Graduate Business Program is designed for highly qualified arts and sciences students in various nonbusiness major programs who wish to pursue a career in management or accounting.

This program combines the curriculum of an arts and sciences baccalaureate degree with the preparation necessary for graduate level study leading to the Master of Business Administration or Master of Accountancy degree.

By judicious selection of electives, students plan to complete most of the specific course requirements for the undergraduate degree in the first three years of study. The senior year is composed of a special sequence of general business courses which serve both to complete the baccalaureate requirements and prepare the student to earn the Master of Business Administration or the Master of Accountancy with approximately one year's additional study. Thus, with the completion of all requirements, an arts and sciences baccalaureate degree should be awarded at the end of the fourth year and the master's degree at the end of the fifth year, although the time devoted to either degree may vary according to the flexibility of the student's particular undergraduate major and/or minor program.

Although students would not formally apply for admission to this program until the junior year, it is important to indicate interest as early as possible and work closely with the program adviser. Requirements for admission include an accumulative grade point average of 3.0 and a score of 500 on the Graduate Management Admission Test, which is given on the Bowling Green State University campus in January, March, July, and October each year.

Combined Baccalaureate-Master's Program in Chemistry

110 Hayes Hall, 372-2031, or 205 Administration Building, 372-2015

The combined baccalaureate-master's program in chemistry offers the well-qualified science student the opportunity to complete the Bachelor of Science degree in three years and the Master of Science degree at the end of the fourth. By completing the two degrees in four years, the student may become better prepared to earn the Ph.D. degree because of the more concentrated background. In addition, a preprofessional student may elect either to complete the three-year B.S. program and go directly to professional school or to continue on to earn the M.S. degree to prepare for a research-oriented career.

The program is structured on a schedule of four years, including summers. Courses should be carefully chosen so that major and group requirements will be completed on time.

First year

A first-year student will take three quarters each of chemistry and calculus, will complete the English requirement, and take social science and/or humanities courses. In the summer quarter the student will take either 12 hours of German (or Russian) or 5 hours of quantitative analysis, or both.

Second year

A second-year student completes three quarters of physics and three quarters of organic chemistry and finishes the requirements in social sciences and humanities as well as the physical education requirement. If these have been completed, other courses may be substituted.

Third year

This year includes three quarters of physical chemistry and electives chosen from biochemistry or advanced organic chemistry. A course in instrumentation or inorganic chemistry completes the undergraduate chemistry major. Some students may choose independent research or other electives such as differential equations. During the third summer, a student begins research and completes the Bachelor of Science requirements.

Fourth year

Upon admission to the Graduate College, courses in thermodynamics, kinetics, quantum mechanics, reaction mechanisms, inorganic chemistry, and atomic and molecular structure are taken. During the fourth year, the student may become eligible for a stipend as well as tuition waivers for assisting in one or more undergraduate laboratories. In the final summer, the student would normally be expected to complete a formal thesis as part of the Master of Science program (plan I). Under certain circumstances, however, a student may, by early consultation with an academic adviser, elect the nonthesis option (plan II) and still complete the program within the four-year period.

This program also offers students the option of studying off campus for a quarter at a governmental or industrial laboratory, which would likely be done during the summer between the third and fourth years.

Other Combined Baccalaureate-Master's Programs

205 Administration Building, 372-2015

An undergraduate capable of maintaining high grades can take the undergraduate degree in the middle of the fourth year by carrying an average of 17 hours for 11 quarters. The resulting total 187 hours is 4 more than the required minimum for the undergraduate degree. These 4 hours might be taken as graduate credit and followed by a full quarter of graduate study. A candidate for a graduate degree may not become a candidate for a degree in an undergraduate college without the permission of the dean of the Graduate College.

School of Art

Maurice J. Sevigny, Director, Fine Arts Building, 372-2786

Bachelor of Fine Arts Degree

The requirements for the degree of Bachelor of Fine Arts, in addition to the general requirements for the baccalaureate listed on page 7, include completion of:

1. the indicated hours of credit from each of five groups or areas of knowledge listed below;
2. completion of a major area of specialization in art history, ceramics, crafts, design (environmental or graphic), drawing, jewelry and metalsmithing, painting, prints, or sculpture;
3. completion of 56 hours in basic courses in design, drawing, ceramics, history of art, sculpture, painting, and prints;
4. the completion of enough additional courses in art to total 80 hours.

The student who plans to teach art in the public schools may follow the teacher preparation program.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 112 or to demonstrate by examination a proficiency in written expression equivalent to that provided in the course. Each student is required to complete SPCH 102. (A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8.)

Group II: Foreign Language or Cultural Experience

Each student is required to demonstrate a proficiency in a language area as stipulated in the options listed below by:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or
2. passing a proficiency examination in the language on the 202 course level; or
3. having completed four years of one language in high school; or
4. having completed one of the departmental options listed below (20 hours minimum in same language area, or fewer by advanced placement):

German, Japanese, Russian

Completion of GERM 101, 102, and 103 plus a minimum of eight additional hours from: 100, 117, 118, 119, 201, 202, 217, 231, 331, or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 103, 201, and 202; or

Completion of RUSN 101, 102, and 103, plus a minimum of eight additional hours from RUSN 100, 201, 202, 303, 315, 316, 317, 319, 331, or RUSN 311, 312, 313.

Romance languages (French, Italian, Latin, Spanish)

Option I

FREN 101, 102, 103, 201, and 202; or ITAL 101, 102, 103, 201, and 202; or LAT 101, 102, 103, 201, and 202; or SPAN 101, 102, 103, 201, and 202; or

Option II: one of the following:

FREN 111, 112, 113, 211, and 212; or LAT 101, 102, and 103, and two of: LAT 141, 142, or 201;

SPAN 111, 112, 113, 211, and 212.

A student may transfer at any point from option I to option II but not vice versa.

Course 202 is required for admission to 300-level courses.

Credit toward a degree is not granted for foreign language courses which duplicate more than one unit of high school study.

Group III: Mathematics and Science: Astronomy, Biological Sciences, Chemistry, Geology, Mathematics and Statistics, Physics

Each student must complete two courses in one or more of these subjects, at least one quarter of which must be a science with laboratory experience. Certain science courses numbered 100 do not apply toward a student's degree requirements if the student also has credit for an introductory laboratory course in the same science. See departmental listings in the course descriptions for specific applications.

Group IV: Social Science: Economics, Ethnic Studies, Geography, History, Political Science, Psychology, Sociology

Each student must complete three courses in one or more of these subjects. A list of approved ethnic studies courses is available in the office of the College of Arts and Sciences.

Group V: Arts and Humanities: Literature (American, English, or Foreign), American studies, Ethnic studies, Music, Philosophy, Popular Culture, Speech Communication, Women's Studies

Each student must complete one course in literature (American, English or foreign),

one course in the fine arts (music, theatre, television and film), and an additional three courses from at least two of the areas listed in this group. A list of courses approved for Group V requirements is available in the office of the College of Arts and Sciences. Courses taken in the student's major may not be counted to satisfy this group.

Majors

120B Fine Arts Building, 372-2786

The School of Art offers major programs in art history, ceramics, crafts, design (graphic and environmental specializations), drawing, jewelry and metalsmithing, painting, prints, and sculpture.

Basic Area**

Each student is required to complete the following:

ART 102, 103, 104, 112, 113, 145, 146, 147, 205, 206, 211, 261, 263, 277, 371, 373 (47-ART 212 or 213 (3)
Two art history electives (6)

Recommended course sequence

First year (21 hours)
ART 102, 103, 104, 112, 113, 145, and 146

Second year
ART 147, 205, 206, 211, 261, and 263
ART 212 or 213
Major art area

Third year
ART 277, 371, and 373
Major art area
Art history

Fourth year
Art history
Major art area
ART electives

Major Areas

Each student is required to complete at least 18 hours in one of the major programs listed below. A student should consult each quarter with the major area instructors concerning progress and course sequence. No 100-level course may be applied toward the completion of major art area requirements.

Art History

Second year
Art 147 (3)

Third year
ART 444, 445, or 446 (3)
ART 451 or 454 (3)
ART 441 or 442 (3)

Fourth year
ART 455, 456, or 457 (3)
Art history electives (6)

**Basic area requirements differ for environmental and graphic design specializations. See design section for requirements.

Ceramics

Second year
ART 263 and 363 (6)

Third year
ART 364 and 463 (6)

Fourth year
ART 463 (repeat) (3)

Crafts

Second year
ART 263 and 363 (6)

Third year
ART 321 and 322 (6)

Fourth year
ART 364 (3)
Crafts electives

Design

Two design specializations are available: graphic and environmental. Each specialization has three components: a basic fine arts core, support field requirements and the specialization core.

Basic Fine Arts Core

Students in either specialization must complete: ART 102, 103, 104, 112, 113, 145, 146, 147, 205, 211, 212, 213, 419; one from ART 261, 263, 321; one from ART 277, 371, 373. ART 440 is required for the environmental design specialization only. A nine-hour portfolio review is required for admission to the advanced level design programs. Consult the School of Art.

Recommended course sequence:

First year (24 hours)
ART 102, 103, 104, 112, 113, 145, 146, 147

Second year (21 hours)
ART 205, 211, 212, 213, 214; 261 or 263 or 321; 277 or 371 or 373

Third year (24 hours)
ART 419 (3)
Support field courses (12)
Design specialization (9)

Fourth year (14-18 hours)
Support field courses (8)
Design specialization (6-10)

Support Field Requirements

At least 20 hours of courses must be taken and should be chosen from a list recommended and approved by the design adviser in the School of Art. Nine hours of the support field must be design-based.

Design Specialization Core

Environmental design

Third year
ART 313 and 314

Fourth year
ART 414, 417, and 418
HOEC 440

Graphic design

Third year
ART 312 and 411

Fourth year
ART 412, 413, and 414

Other programs

A product design specialization is available as a Bachelor of Science in Technology degree in the School of Technology, in cooperation with the School of Art's design division. A major in interior design is available through the Department of Home Economics. A major in design technology is available through the School of Technology.

Drawing

Second year
ART 206 and 208 (6)

Third year
ART 305 (repeat) (3)

Fourth year
ART 405 (repeat) (3)

Jewelry and Metalsmithing

Second year
ART 320 (3)

Third year
ART 321, 322, and 421 (9)

Fourth year
ART 421 (repeat) (3)
ART 422 or 423 (3)

Painting

Second year
ART 372 or 374 (3)

Third year
ART 372 (repeat) or 374 (repeat) (3)

Fourth year
ART 471 or 473 (repeat twice) (3)

Prints

Second year
ART 277 and 377 (6)

Third year
ART 378 (repeat) (3)

Fourth year
ART 477 (repeat) (3)

Sculpture

Second year
ART 261 (3)

Third year
ART 361 (repeat) (3)

Fourth year
ART 461 (repeat) (3)

Teacher Preparation

116 Fine Arts Building, 372-2786

A Bachelor of Science in Education degree program in visual arts education is available through the College of Education, in cooperation with the School of Art (refer to the College of Education program description). An alternative teacher preparation program is available as a combined arts and sciences/education curriculum which leads to the Bachelor of Fine Arts degree with certification to teach in the public schools. This B.F.A. degree program offers extended in-depth experiences in the studio component of the art

education content specialization. Students in the B.F.A. program may qualify for teacher certification through successful completion of the teacher education certification requirements. This combined program will generally require an additional academic year to complete. Though it is possible to complete the education requirements in a fifth year of study, it is highly recommended that B.F.A. students desiring Ohio teacher certification attend to requirements earlier in their programs.

The following courses are required for teacher certification: ART 252, 352, and 353; ART 481, 482, 483, 488, or 495; L&EM 301 or VCT 203; EDCI 202 or EDFI 202; EDCO 331; EDFI 302, 402, 408; EDAS 409; EDSE 311. These courses are included in the recommended sequence of courses outlined below.

Recommended sequence of courses

First year
ART 102, 103, 104, 112, 113, 145, and 146 (28)
Foreign language (amount of credit depends on high school preparation of the student)
SPCH 102 (4)
ENG 111 and/or 112 (4-8)
PEG 100 (3)
Two courses of science or mathematics (one of which must be a laboratory course)

Second year
ART 147, 205, 206, 261, 361, 363, and 371 (21)
Foreign language or electives
EDFI 302 (4)
ART 211, and/or 212, and/or 213 (6)
PSYC 201 (5)
EDCI 202 or EDFI 202 (3)
EDSE 311 (3)
L&EM 301 or VCT 203 (4)

Third year
ART 252, 277, 321, 352, 353, 373, and 377 (18)
Art history elective
ART 481, 482, 483, 488, or 495 (3-4)
ART 372 or 374 (3)
EDFI 402 and 408 (8)
EDAS 409 (4)
Major art area
Literature elective
Group IV requirements: SOC 101 and six hours of electives other than PSYC
Group V requirements: three humanities courses (one course in art history is applied to this requirement)

Fourth year
Professional concentration (one quarter)
Art history
Student teaching (one quarter)
Major art area

The major art area and two art electives—crafts—may be completed in an additional quarter or in summer study if necessary.

A student who follows this curriculum registers each quarter in both the Colleges of Arts and Sciences and Education and has the program approved by the appropriate advisers. This program may be continued after the freshman year only with the approval of the School of Art staff. The student who must take two years of foreign language and who follows a program in aerospace studies or in military science needs to take more than the usual time to complete this program.

School of Speech Communication

Allen S. White, Director, 109 South Hall,
372-2136

Television and Film Instruction

The School of Speech Communication maintains complete television and film production facilities in South Hall. Students enrolled in courses in the radio-television-film area work in professional radio and television studios and film-making quarters. Film-making equipment, including a completely equipped darkroom, makes it possible for a student to work in creative, experimental film production.

Student-made films can be aired on the University closed-circuit television system and on WBGU-TV and may be entered in film festivals. Major film projects are sponsored by outside organizations.

BG-TV7 provides weekly news, sports, and feature programming to the campus community via the closed-circuit television system.

A television studio-classroom affords opportunities for faculty and students to conduct research involving video-taping techniques.

Television Center

Located on south campus, the University Television Center contains public television station WBGU-TV and closed-circuit instructional television production and distribution facilities.

The center's award-winning staff of 30 full-time professional broadcasters is assisted by graduate assistants, doctoral fellows, and more than 50 undergraduate employees.

WBGU-TV, a regional public television station serving northwestern Ohio and northeastern Indiana, broadcasts instructional television programs to elementary and secondary classrooms during the day and cultural and public affairs programs to the general public throughout the evening. It is affiliated with the Public Broadcasting Service (the national public television network) and with the Ohio ETV Network. The station's extensive local program production schedule provides student opportunities for professional production experience in television.

The Closed-Circuit Instructional Television Office serves the campus community with telecourses and a variety of other educational television and film materials used by academic departments. A campus-wide dual television cable system carries commercial station programs and

educational programming to all residence halls. The system also provides opportunity for intra-University communications.

The center's television staff contracts with state and other agencies for production projects, some of which attain nationwide distribution.

Radio Stations

WBGU, the University FM radio station, broadcasts on 88.1 megahertz with 1,350 watts. Programming consists of news, public affairs, cultural features, and classical, jazz, folk, and rock music. The station is operated by the radio-TV-film area of the School of Speech Communication closely cooperating with other University units such as the School of Journalism, the College of Musical Arts, and the Popular Culture Department. Faculty and student volunteers provide the majority of the station's staff. WBGU-FM's transmitter and studio are located in 413 South Hall.

Carrier-current WFAL is a student-operated commercial AM radio station broadcasting to residence halls on campus. The station provides communication to and among students while offering commercial programming designed to meet student interests. The station is heard in the residence halls on 680 kc. WFAL operates throughout fall, winter, and spring quarters. The office and studio are located in 413 South Hall.

Forensics

A broad program in forensics stressing debate, extempore speaking, public address, and interpretative reading is sponsored by the School of Speech Communication. Experienced and beginning debate teams travel throughout the nation competing against teams of other colleges and universities.

University Theatre

The University Theatre, a division of the School of Speech Communication, serves as a laboratory for any University student interested in theatre and speech.

The University Theatre production program is staged in two theatres—the Main Auditorium and the Joe E. Brown Theatre. Normally, there are six major productions in Main Auditorium and nine to twelve in the Joe E. Brown Theatre each year. These include one play for children and a reader's theatre production. The Huron Summer Playhouse, operating in Huron,

Ohio, provides students with a full range of summer stock experience.

Bachelor of Arts in Communication Degree

The requirements for the degree of Bachelor of Arts in Communication (BAC) include completion of the general requirements for the baccalaureate listed on page 7 and:

1. The minimum number of courses from each of six areas of knowledge listed below:

2. Completion of a specialized program in communication studies as defined below:

3. Completion of at least 78 hours outside the School of Speech Communication.

A Bachelor of Arts degree in speech communication is also offered by the College of Arts and Sciences. The student who plans to teach speech in the public schools should follow the Bachelor of Science in Education program offered in the College of Education.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 112 or demonstrate by examination a proficiency in written expression equivalent to that attained by the student who completes the course. (A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8.) SPCH 102, THEA 202, and IPCO 305 are also required.

Group II: Foreign Language or Cultural Experience

Each student must follow one of the following options:

1. having been graduated from a high school where all instruction was conducted in a language other than English; or

2. passing a proficiency examination in the language on the 202 course level; or

3. having completed four years of one language in high school; or

4. having completed one of the departmental options listed below (20 hours minimum in the same language area, or fewer by advanced placement).

German, Japanese, Russian

Completion of GERM 101, 102, and 103 plus a minimum of eight additional hours from GERM 100, 117, 118, 119, 201, 202, 217, 231, 331 or GERM 260, 315, 316; or

Completion of JAPN 101, 102, 103, 201, and 202, or

Completion of RUSN 101, 102 and 103, plus a minimum of eight additional hours from RUSN 100, 201, 202, 303, 311, 312, 313, 315, 316, 317, 319, 331, or RUSN 311, 312, 313.

Romance languages (French, Italian, Latin, Spanish)*Option I*

FREN 101, 102, 103, 201, and 202; or ITAL 101, 102, 103, 201, and 202; or LAT 101, 102, 103, 201, and 202; or SPAN 101, 102, 103, 201, and 202.

Option II: one of the following:

FREN 111, 112, 113, 211, and 212; or LAT 101, 102, and 103 and two of: LAT 141, 142, or 201

SPAN 111, 112, 113, 211, and 212.

A student may transfer at any point from option I to option II but not vice versa. If a student selects option II, all courses in that sequence must be completed subsequent to the first course in which the student is placed. Course 202 is required for admission to 300-level courses.

Cultural Experience

Students may select a planned program of at least four courses involving study of foreign or ethnic cultures drawn from a previously approved list in the School of Speech Communication. This option is open only to those students who have completed two years of one foreign language in high school.

Group III: Mathematics and Statistics, and Science

Each student must complete two courses including one laboratory from biological sciences, chemistry, geology, mathematics, physics, or statistics. Certain science courses numbered 100 do not apply toward a student's degree requirements if the student also has credit for the introductory laboratory course in the same science. See departmental listing in the course descriptions for specific applications.

Group IV: Social Sciences: Economics, Geography, History, Political Science, Psychology, Sociology

Each student must complete three courses in two of these areas.

Group V: Arts and Humanities: Art, Literature (American, English, or Foreign), Film, Music, Philosophy, Popular Culture, Theatre

Each student must complete three courses in at least two of these areas from an approved list of courses.

Group VI: Cognate Studies Experience

Students must complete, as specified by the nature of their specialized programs, seven additional courses from at least two of the above areas. No more than three courses from the School of Speech Communication may be used to satisfy this requirement.

Specialized Program

Each student is expected to present a program of specialization in communication study from existing structured options (theatre, communication disorders, radio-television-film, interpersonal and public communication), or a previously approved individual program to approximate the equivalent of a range from 64 to 80 hours.

The following options are available:

1. A program concentrated in one of the four speech communication areas (theatre, communication disorders, radio-television-film, or interpersonal and public communication), supplemented by either an appropriate organized minor or approved support field pertinent to the program.

2. A program including two or more speech communication areas, supplemented by a support field pertinent to the program.

3. A program including one or more speech communication areas, departments, and divisions in the College of Arts and Sciences or other colleges and schools in the University, supplemented by a support field pertinent to the program.

Students must consult advisers in the School of Speech Communication for assistance in planning their individual academic programs.

Center for Educational Options

231 Administration Building, 372-0202
Dr. Robert Bashore, Director, University Honors Program
Dr. Beth Casey, Director, and University Coordinator for General Education
Ms. Nancy Miller, Director, Off-Campus Programs and Independent Studies
Dr. Joan Morgan, Director, University Division
Dr. Charlotte Scherer, Director, University Seminar

The Center for Educational Options provides university-wide educational programs that enrich the undergraduate experience. The Center places special emphasis on options for freshmen. University-wide programs housed in the Center include the University Honors Program, the University Division, Off-Campus and Independent Studies, the University Seminar, Career Planning and Decision Making, Summer Transition Courses, University-wide General Education Liaison, and the Time-Flexible Degree Program.

University Division

Freshmen entering BGSU may wish to explore a variety of academic majors prior to declaring a major area of study. Such students can enroll in the University Division.

Each student in the University Division is assigned an academic adviser who is familiar with the general education requirements of the undergraduate colleges. Division students get assistance from their advisers in selecting general education courses as well as in exploring different major areas of study. The Division maintains information about the academic requirements of each major offered at the University, but refers students to the appropriate departmental office for more detailed information about a particular area of study. Students are encouraged to enroll in one of the undergraduate colleges before completing their fourth quarter at the University. Although the counseling and advising services of the University Division are used primarily by freshmen unsure of their major area of study, other students at the University may also use these services.

Career Planning and Decision Making (CEO 131)

The Career Planning and Decision Making program helps students to assess those values, interests, needs, and skills which will be most helpful in selecting an academic major and relating that major to a career. Current job market trends are analyzed, and strategies are developed for decision making and dealing with the world of work.

Summer Transition Courses

During the summer transition quarter only, CEO 290 is offered, combining the orientation/study skills of CEO 121 and the career planning/decision-making of CEO 131. This four-hour course helps students to make the transition to university life and to develop their study skills. Students also develop their decision-making skills by investigating college majors, academic program offerings, and occupational options. By examining how their own needs and values, the world of work, and education/career planning fit together, students learn how to reach their goals after graduation. Scheduling is flexible, allowing students to include other courses in their summer studies.

Time-Flexible Degree Program*

This program gives students the opportunity to demonstrate early achievement of competencies in the general studies areas of communication, critical thinking, the physical sciences, the social sciences, and the humanities. These competencies are evaluated primarily through grades and scores on comprehensive examinations given once a year. Students who demonstrate a high level of competency in the general studies areas can obtain a degree in less than four years; or they may design a flexible four-year program, pursuing such academic options as double majors, off-campus internships, and study abroad programs.

Students applying for the program are counseled individually concerning the freshman general studies program best suited to helping them acquire or sharpen necessary competencies. Their background and personal, academic, and career goals serve as guidelines for making

these decisions. With few exceptions, individuals who receive credits through the Time-Flexible Degree Program have well above a "B" average and have scored at least at the sophomore level on the required examinations.

The program is designed primarily for students who enter the University in the fall quarter. Part-time students, transfer students, or those who enter the University during a quarter other than fall and who have less than 45 credit hours must notify the Center for Educational Options of their interest in the program by the end of the quarter in which their accumulated credit hours will exceed 30. Part-time and transfer students who have accumulated more than 45 credit hours are not eligible to participate in the program.

College Level Examination Program (CLEP)*

CLEP offers general area examinations in English composition, natural science, humanities, social science, and mathematics. Students may use these examinations as vehicles for earning college credit at BGSU. There are individual test dates each month, but BGSU also offers a special campus test date for incoming freshmen, usually just before their fall classes begin in September. To be eligible for an area of the CLEP exam a student *must not have done college-level work in that specific area*. For information on the reduced costs of the BGSU institutionally administered test, contact the Center for Educational Options or the Counseling and Career Development Center. The policies governing the administration of CLEP examinations are subject to change.

University Honors Program

This program is open to qualified incoming students and to other undergraduates who are concerned about the quality of their general education as well as their field of specialization. The Honors Program offers intellectually challenging experiences in general studies (small discussion groups, guest speakers, independent projects, travel-study seminars); recognition for standing performance; and opportunity

*Although students may be awarded college credit through more than one of these programs, students may not receive credit from more than one of these programs for the same course or academic experience.

for interaction with students of similar ability and motivation. Special housing options are available. For more information, see p. 13.

Off-Campus Programs

National Student Exchange

The National Student Exchange (NSE) is a program that offers students the opportunity to take course work at another college or university in the United States. The program encourages students to experience and learn from different regional and cultural perspectives, and to broaden their educational backgrounds through courses of study that may not be available at their home campus. BGSU is a participating member of the NSE consortium of 54 state-supported colleges and universities.

Any qualified, full-time student may participate for up to one academic year. Out-of-state tuition fees are waived at the host institution, and courses taken at the NSE institution count toward BGSU graduation. The NSE experience is probably most beneficial and appropriate for sophomores and juniors. Interested students should consult with the NSE coordinator about costs, course selection, choice of host university, and planning the best time for the exchange.

Washington Semester

This highly competitive program offers a 15-week experience at The American University, Washington, D.C. It provides qualified students with a learning opportunity in criminal justice, urban affairs, economic policy, American studies, or foreign policy. Interested students can apply through the Center for Educational Options. The final selection of participants is made by a committee composed of three faculty members from different academic areas and a student who has participated in the Washington Semester experience.

Washington Internships

Through the independent studies program, many BGSU students have participated in internships in legislative, Congressional, agency, and public interest group offices in Washington, D.C., and Columbus, Ohio. Interns typically answer constituent mail, do legislative research and prepare reports, attend meetings, and frequently have the opportunity to participate in campaigns. Students combine the internship with a research project, usually working in the office four and a half days a week and using the remaining time to develop and complete a research paper. This program provides excellent experience for any qualified student, but is particularly valuable for those majoring in prelaw, political science, social studies, journalism, economics, and American studies.

Independent Study

This program enables students to earn from one to 16 credits (on an S/U basis) for special work, travel, or learning experiences not normally handled through regular departmental courses. Working through the Center for Educational Options, students plan their independent studies projects with faculty supervisors. Some recent projects include:

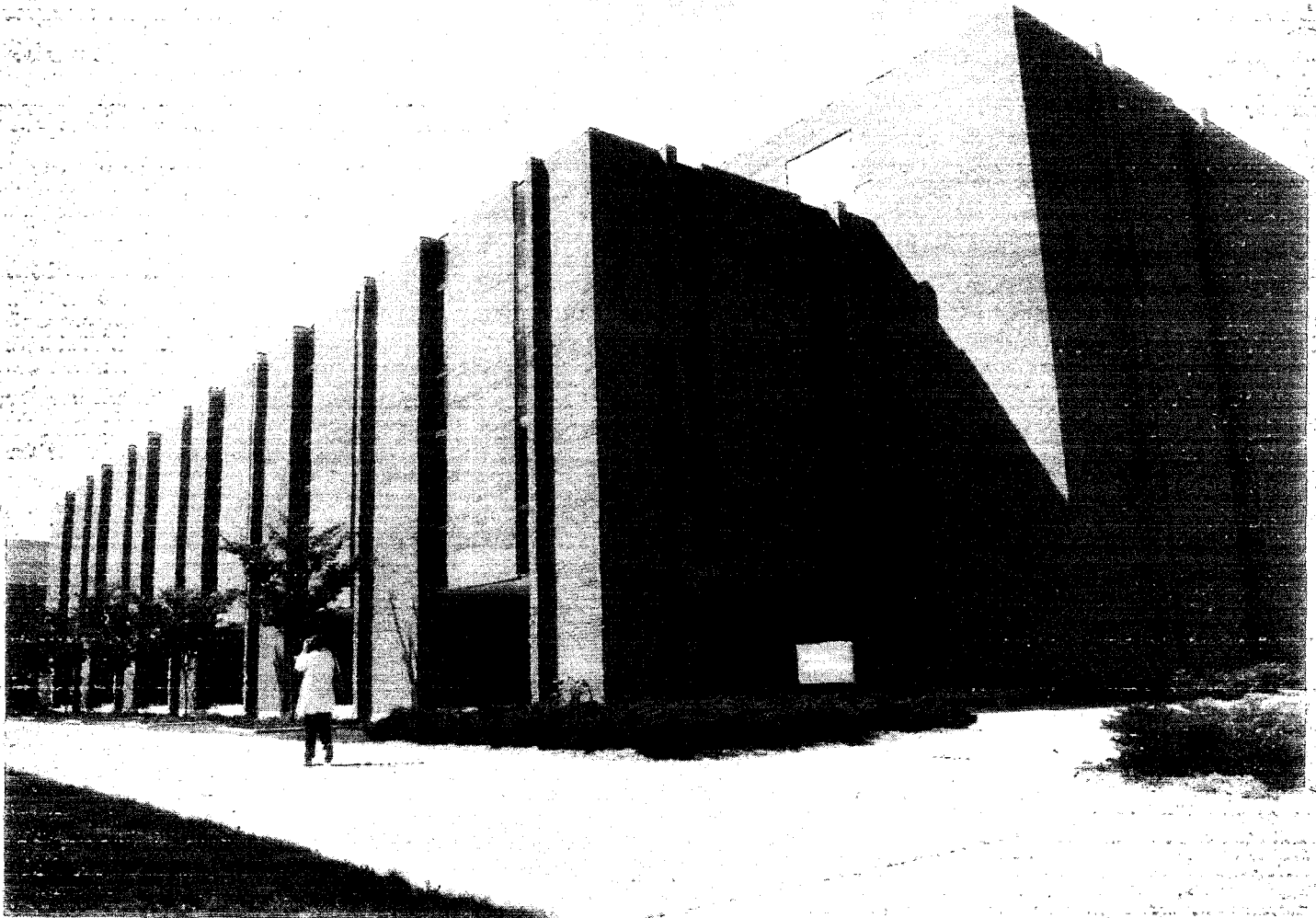
- Internship with the Democratic National Committee
- Art/travel experience in Central and South America
- Internship with the Argentinian Embassy
- Study of Chinese culture through language
- Fashion merchandising internship in California
- Study of the health and medical conditions of Mexican-American migrants
- Internship with the Maine State Museum

High School College Credit Program

High school students may enroll in regular University courses and receive college credit by applying and being accepted for the High School College Credit Program. For high school students who possess general or specific academic talent, the program offers an opportunity to take course work which is unavailable at their own institutions. College credit is granted for satisfactory completion of these courses whether or not they are used to complete a student's high school requirements. Interested students may consult with the program coordinator about application requirements and course selection.

University Seminar (CEO 100)

The University Seminar, a 2-credit course graded S/U, focuses on topics of interest to students who are new to BGSU, such as the range of available University resources; the purposes of higher education; study skills, time management, and academic planning; and understanding the general education group requirements. Through the University Seminar, students learn to make the transition to the academic and cultural life of the University, increase their understanding of the purpose and value of higher education relative to their own lives, and sharpen those basic skills and understandings necessary for academic success in a university setting. Classes of 20-25 students are taught by teams composed of one faculty member, one staff member, and an upper-division student.



College of Business Administration

Karl E. Vogt, Ph.D., Dean, 371 Business Administration Building, 372-2747

Edwin Tonnesen, Ph.D., Associate Dean, 371 Business Administration Building, 372-2747

Marie R. Hodge, M.B.A., Assistant Dean; Director, College Internship Program, 371 Business Administration Building, 372-2747

Edwin Bomeli, Ph.D., Director, Graduate Studies in Business, 367 Business Administration Building, 372-2488

Gary Roser, M.B.A., Director, Management Center, 369 Business Administration Building, 372-2807

William R. Hoskins, D.B.A., Director of International Business Programs, 222 Business Administration Building, 372-0222

Department of Accounting and Management Information Systems, Mark Asman, Ph.D., Chair, 332 Business Administration Building, 372-2767

Department of Applied Statistics and Operations Research, Robert Patton, Ph.D., Chair, 344 Business Administration Building, 372-2363

Department of Business Education, Mearl R. Guthrie, Ph.D., Chair, 242 Business Administration Building, 372-2901

Department of Economics, Bevars Mabry, Ph.D., Chair, 301 Business Administration Building, 372-2646

Department of Finance and Insurance, Raj Padmaraj, Ph.D., Chair, 201 Business Administration Building, 372-2520

Department of Legal Studies, Milton Wilson, J.D., Chair, 253 Business Administration Building, 372-2376

Department of Management, Chan Hahn, Ph.D., Chair, 264 Business Administration Building, 372-2946

Department of Marketing, Maurice I. Mandell, D.B.A., Chair, 234 Business Administration Building, 372-2041

School of Journalism, Harold Fisher, Ph.D., Director, 104 University Hall, 372-2076

Department of Aerospace Studies, Lt. Col. Richard Coppock, M.S., Chair, 164 Memorial Hall, 372-2176

Department of Military Science, Col. Duane Root, M.S., Chair, 151 Memorial Hall, 372-2476

Academic Objectives

The foremost consideration in all curricula in business administration is to provide each student with a broad, liberal education. Thus, many of the degree requirements are in the humanities, the sciences, and the social sciences. The courses in business administration are designed not only to foster professional competency but also to develop the whole individual as a responsible, useful citizen in society.

Professional education in business administration should not be confused with vocational education. These curricula are not designed to train technicians. Rather, they serve to develop the capabilities of students so that they may assume positions of leadership and responsibility in the administration of business. To accomplish these ends, instruction in business administration places emphasis on developing the students' abilities to think and to make decisions.

To provide a sound foundation and broad appreciation of the world of business, a student is required to complete a common core of basic business courses. These courses provide a student with knowledge of the interrelationships of the functional areas of business and of the tools necessary for decision-making.

Each curriculum provides the student with an opportunity for developing an acceptable level of competency in the field. Finally, a substantial amount of latitude is provided in all curricula to permit the student to elect additional courses to round out the total educational experience.

Thus, the curricula in business administration provide the student with a total educational experience, a breadth of understanding of the business world, and a depth of knowledge in a particular business field. The degree in business administration serves as preparation not only for assuming a position of responsibility in business and society but also for graduate study in business administration, law, and public administration.

Standards of Performance and Accreditation

To meet the challenges of the business world the academic program of the College of Business Administration requires

high standards of performance. Programs are designed to provide an intellectual challenge to a student who wishes to assume the responsibility for tomorrow's business leadership.

The College of Business Administration is a fully accredited member of the American Assembly of Collegiate Schools of Business. Degrees granted by such accredited colleges are widely recognized by major businesses and graduate schools.

Students of outstanding achievement in business and management may be recognized by Beta Gamma Sigma, the national scholastic honor society. The purposes of Beta Gamma Sigma are to encourage and reward scholarship and accomplishment, to promote the advancement of education in the art and science of business, and to foster integrity in the conduct of business operations.

Credit by transfer from a two-year, fully accredited institution is not accepted for most business courses which require junior or senior standing at Bowling Green. However, should transfer students think they have sufficient background in the subject matter of a course, they may take an examination for credit in these, a CLEP test, or successfully complete an advanced course. Such validation techniques result in transfer credit for the course being accepted.

Credit by transfer from a four-year, fully accredited institution is accepted for most courses.

Organization of the College

The College of Business Administration consists of eight departments of instruction in business administration and a School of Journalism. The eight departments—accounting and management information systems, applied statistics and operations research, business education, economics, finance and insurance, legal studies, management, and marketing—offer 22 undergraduate sequences and a comprehensive graduate program covering the major phases of business activity.

The following degrees and majors are offered:

College of Business Administration
Bachelor of Science in Business
Administration

Accounting
Administrative management
Advertising
Business pre-law
Economics
Finance
General business
Health care administration
Human resources management
Industrial and labor relations
Insurance
International business
Management information systems
Marketing research
Operations research
Procurement and materials
management
Production and operations
management
Public and institutional administration
Retailing
Secretarial administration
Selling and sales management
Statistics

Bachelor of Science in Economics
Economics

Associate in Applied Business
Two-year executive secretarial

Business Administration—Education

School of Journalism

Bachelor of Science in Journalism
Broadcast journalism
Magazine journalism
News-Editorial
Photojournalism
Public relations

Study Abroad

The College of Business Administration offers an opportunity to enroll in a five-week summer session at a business school in Nantes, France. Courses are taught in English and carry nine hours credit. Special courses in the French language are optional. The program is contingent upon enrollments. See page 13 for additional information.

Bachelor of Science in Business Administration

A candidate for the degree of Bachelor of Science in Business Administration must complete the general requirements for graduation listed on page 7 and the following:

1. meet the general education group requirements listed below, preferably in the freshman and sophomore years;
2. meet the professional group requirements and specific requirements for at least one major.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 111 and 112, and four hours of communication electives. If a student is exempt from ENG 111, four additional hours of nonbusiness electives are required. ENG 110 may also be required, but only eight hours of English may be counted toward graduation. A penalty is assessed if ENG 112 is not completed within the first 90 hours. See page 8.

Group II: Foreign Language or Cultural Experience

No requirements; see Group V.

Group III: Mathematics, Science, and Quantitative Measurements

Each student is required to complete two basic mathematics courses (see professional specialization areas for specific courses); and eight hours of science, or mathematics (MATH 232 and 233), or computer science (not CS 100).

Group IV: Social and Behavioral Sciences

Each student is required to complete 12 hours chosen from courses in GEOG (except GEOG 125, 126, 127, or 213), HIST, POLS, PSYC, and SOC.

Group V: Humanities

Each student is required to complete eight hours of credit from an approved list of humanities courses in the areas of ART, foreign language, literature, music, PHIL, POPC, and THEA. A list of acceptable courses is available in the College of Business Administration Office or from a faculty adviser.

Non-business Electives

Each student is required to complete 15 or 19 additional hours in nonbusiness fields depending on English placement. An academic adviser assists each student in selecting courses which broaden or deepen the student's general education. Courses chosen must not be in business administration.

Pre-professional Core

In the sophomore year, each student is required to complete 28 hours in the following: ACCT 221 and 222; ECON 202 and 203; STAT 211 and 212; and MIS 200.

Professional Requirements

Professional Core

Each candidate is required to complete a common core of professional courses. For most majors these courses are: BA 303, FIN 300, MGMT 300, MKT 300, LEGS 301, MGMT 360, OPRE 380, BA 405, and at least two junior-level courses in ECON (see major areas for specific courses as some variations exist).

Major

Each student must complete the requirements for at least one major. Requirements

for the majors are listed on the following pages.

Electives

The remainder of the academic program consists of electives to meet the student's specific educational objective. These electives should be selected in consultation with the student's adviser. Some majors specify certain courses which, in the opinion of the faculty, have a special importance. A student may cross college lines in meeting this requirement and take academic work in any of the departments of the University.

The Curricula

The pages which follow show how and when requirements may be met. Whenever possible, 100-level courses should be taken during the freshman year; 200-level courses during the sophomore year; 300-level courses during the junior year; and 400-level courses during the senior year. Following these levels is particularly important in core courses. Each of the majors and concentrations within a major is different in its requirements; therefore, each is given in its entirety to permit the student to see the major as an integrated whole and to follow the requirements with ease.

Accounting

332 Business Administration Building,
372-2767

The curriculum in accounting is designed for the student who wishes to prepare for a career as a professional accountant with industry, government, nonprofit organizations, or for public accounting practice as a CPA. Opportunities exist to work in such specialized areas as auditing, taxes, governmental, costs and systems, or management advisory services. Students interested in specializing should consult their academic advisers for proper course selection.

CPA Examination and Licensing Requirements

To qualify as a candidate for the CPA examination in the State of Ohio, one must hold at least a bachelor's degree (not necessarily in accounting or business) and have a minimum of 36 quarter hours of accounting, which may include 4 hours of computer-related training. Graduation from BGSU with an accounting major fulfills these requirements, but additional elective courses in accounting may be desirable. Students may sit for the CPA examination (given in May and November) if they are within 60 days of graduation.

To receive the CPA certificate and license to practice in Ohio, a candidate must complete two years in public accounting or four years in another accounting-related position. One half the work experience may be waived if the candidate has a master's degree.

For more information and examination applications, contact the Accountancy Board of Ohio, 65 South Front Street, Suite 202, Columbus, Ohio 43215 (614-466-4135). Applications are due 60 days before the examination. Education and experience requirements differ in other states; contact the appropriate state board to determine its requirements.

Matriculation into the Accounting Major

Students who plan to obtain the Bachelor of Science in Business Administration degree with an accounting major should enroll in the pre-accounting program within the College of Business Administration. To be admitted as a candidate for the Bachelor of Science in Business Administration degree program as an accounting major, a student must:

1. attain an all-university accumulative grade point average of 2.6 or better.
2. complete a minimum of 75 quarter hours of University credit.
3. complete ACCT 221 and 222 or ACCT 320 with a grade of "C" or better.

Graduation Requirements

A candidate for the Bachelor of Science in Business Administration degree with a major in accounting must:

1. meet general University and College Business Administration requirements outlined on pages 7 and 62.
2. complete a minimum of 24 hours of accounting courses beyond the introductory courses ACCT 221, 222, or 320.
3. attain a grade of "C" or better in all of the following: ACCT 221 and 222 (or, alternatively, ACCT 320), ACCT 321, 322, 331, 332, 351, and the four-hour ACCT elective used to complete the 24-hour requirement.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 124 or 131 (5)
STAT 211 and 212 (8)
PEG 100 (3)
MATH 125 or 231 (5)
MIS 200 (4)
Electives (15-19)

Second year (45 hours)
ACCT 221, 222, and 321 (12)
ECON 202 and 203 (8)
Electives (25)

Third year (48 hours)
ACCT 322, 331, 332, and 351 (16)
LEGS 301 (4)
ECON 303 or 311 (4)
MGMT 300 and 360 (8)
BA 303 (4)
ECON 302 (4)
FIN 300 (4)
OPRE 380 (4)

Fourth year (43 hours)
MKT 300 (4)*
ACCT 421, 422, 423, 424, 429, 439, 441, 442, 452, or 491 (4)
BA 405 (4)
Electives (31)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:

Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Administrative Management

242 Business Administration Building,
372-2901

This program is designed for the student who wishes to specialize in the planning, organizing, and controlling of office work. This curriculum introduces the student to the administrative functions of records management, office systems and procedures, data processing, and office organization and management. Graduates of this program may obtain employment in a variety of office occupations involved in information processing or management.

First year (48 hours)
BUSE 112 or 210 (3)
PEG 100 (3)
MATH 124 or 131 (5)
ENG 111 and 112 (4-8)
MATH 125 or 231 (5)
Communication elective (4)
Other electives (20-24)

Second year (45 hours)
ACCT 221 and 222 (8)
ECON 202 and 203 (8)
BUSE 211 and 230 (6)
STAT 211 and 212 (8)
MIS 200 (4)
Electives (11)

Third year (45 hours)
LEGS 301 (4)
ECON 303 or 311 (4)
MGMT 300 (4)
OPRE 380 (4)
ECON 302 or 304 (4)
BUSE 301 (4)
FIN 300 (4)
MKT 300 (4)
Electives (13)

Fourth year (45 hours)
BA 303 (4)*
MGMT 361 and 365 (8) or MGMT 450 and 451 (8)
BUSE 455 (3)
MGMT 360 (4)*
BA 405 (4)
Electives (22)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:
Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Advertising

234 Business Administration Building,
372-2041

This is a marketing curriculum for the student who is interested in a career in advertising in a commercial or industrial establishment or in an advertising agency. For other marketing curricula, see marketing research, retailing, and selling and sales management.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 124 or 131 (5)
Communication elective (4)
PEG 100 (3)
MATH 125 or 231 (5)
Other electives (23-27)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 211 and 212 (8)
MIS 200 (4)
ECON 202 and 203 (8)
Electives (17)

Third year (45 hours)
BA 303 (4)
ECON 302 or 304 (4)
MKT 300, 401, and 410 (12)
MGMT 300 and 360 (8)
ECON 303 or 311 (4)
OPRE 380 (4)
FIN 300 (4)
Electives (5)

Fourth year (45 hours)
LEGS 301 (4)
BA 405 (4)
MKT 403, 411, 412, and 420 (16)
Electives (21)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:
Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Business Pre-law

253 Business Administration Building,
372-2376

This is a curriculum to prepare the student for professional training in a law school, recognizing the business and economic emphasis of the practice of law while providing the breadth of training and the philosophical background which is conducive to success in a law school program.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 124 or 131 (5)
PEG 100 (3)
MATH 125 or 231 (5)
ENG 200, 261, 262, or 263 (4)
Electives (23-27)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 211 and 212 (8)
ECON 202 and 203 (8)
ENG 207 (4)
MIS 200 (4)
Electives (13)

Third year (45 hours)
BA 303 (4)
ECON 303 or 311 (4)
MGMT 300 and 360 (8)
ECON 302 or 304 (4)
LEGS 301 and 305 (8)
FIN 300 (4)
MKT 300 (4)
OPRE 380 (4)
Elective (5)

Fourth year (45 hours)
BA 405 (4)
LEGS at 300 or 400 level (4)
LEGS 421 and 491 (8)
Electives (29)

*Must complete before registering for BA 405.

Electives (hours included above)

Electives should be chosen to meet the following general education group requirements:

- Group I (4)
- IPCO 204 suggested
- Group III (8)
- Group V (8) (must include ENG 200, 261, 262, or 263; PHIL 103 suggested)
- Group IV (12) (HIST 205, 391, 432; and/or POLS 201 suggested)

Economics

301 Business Administration Building,
372-2646

Areas of specialization in economics (see below) are programs of related courses designed to provide the student with those occupational skills in each specialized field sufficient to analyze its unique, technical economic problems; a foundation upon which the future executive can develop capacities to formulate and analyze policy; and a background ideally suited for advanced professional training in law, administration, or business, or for graduate studies in economics. Students are encouraged, in consultation with their academic advisers, to select areas of specialization related to their individual career goals.

First year (48 hours)

- ENG 111 and 112 (4-8)
- MATH 124 or 131 (5)
- Communication elective (4)
- PEG 100 (3)
- MATH 125 or 231 (5)
- MIS 200 (4)
- Other electives (19-23)

Second year (45 hours)

- ACCT 221 and 222 (8)
- STAT 211 and 212 (8)
- ECON 202 and 203 (8)
- Electives (21)

Third year (45 hours)

- ECON 302 and 303 (8)
- FIN 300 (4)
- MGMT 300 and 360 (8)
- Economics area of specialization (8)
- BA 303 (4)
- LEGS 301 (4)
- MKT 300 (4)
- Elective (5)

Fourth year (45 hours)

- ECON 400, or 401, or 402 (4)
- Economics area of specialization (16)
- BA 405 (4)
- Electives (21)

Electives (hours included above)

Electives should be chosen to meet the following general education group requirements:

- Group I (4)
- Group III (8)
- Group IV (12)
- Group V (8)

Area of specialization (24 hours)

Each sequence may include up to 8 hours of courses from outside the Economics Department. In addition to the following list, students may, with their adviser's approval, design under the general economics area a program tailored to individual career needs. The following sequences are recommended:

Business economics

ECON 304, 402**, 404, 471, and/or ECON elective (16)

BA 406, ACCT 331, and/or LEGS 417 (8)

Quantitative economics and forecasting

ECON 401**, 402**, 404, 414, and/or ECON elective (16)

STAT 315 and 404 (8)

Urban real estate

ECON 311, 332, 336, 361, 459, and/or 461 (16-20)

FIN 342, INS 465, and/or LEGS 415 (4-8)

Urban/regional planning

GOEG 402, 426; POLS 421, 430; SOC 413; and/or HIST 403 (4-8)

ECON 332, 336, 361, 459, and/or 460 (16-20)

Monetary economics and financial institutions

ECON 311, 351, 414, and 452 (16)

FIN 360 and 461 (8)

Government finance

ECON 331, 332, 336, and 414 (16)

POLS 331, 332, 459, and/or ACCT 423

International trade and development

BA 390, LEGS 406, MGMT 471, BA 450, and/or ACCT 424 (8)

ECON 351, 371, 451, and 452 (16)

Comparative economic development

ECON 351, 371, 372, 453, and/or 474 (16-20)

LEGS 305; POLS 423, 460; and/or SOC 419 (4-8)

Labor economics and relations

ECON 321, 322, 323, 423, and/or 424 (16-20)

LEGS 419, MGMT 361, HIST 405, and/or PSYC 452 (4-8)

Industrial regulation

ECON 341, 425, 435, 447, and/or 471 (16-20)

BA 403 and/or LEGS 421 (4-8)

General economics

ECON 473 and ECON electives (24)

Other programs

The College of Business also offers the Bachelor of Science in Economics. Programs in economics also are available through the College of Arts and Sciences and the College of Education.

Finance

201 Business Administration Building,
372-2520

This is a curriculum for a student who is interested in the financial management of a business enterprise, a financial institution such as a commercial bank or savings and loan association, mutual funds, an insurance company, or investment analysis and management.

First year (48 hours)

- ENG 111 and 112 (4-8)
- MATH 125 or 231 (5)
- Communication elective (4)
- PEG 100 (3)
- MATH 124 or 131 (5)
- Other electives (23-27)

Second year (45 hours)

- ACCT 221 and 222 (8)
- STAT 211 and 212 (8)
- ECON 202 and 203 (8)
- MIS 200 (4)
- Electives (17)

Third year (45 hours)

- ACCT 321 and 322 (8); or ACCT 331 and 332 (8); or ACCT 327 and 337 (8)
- ECON 303 or 311 (4)
- FIN 300, 330, and 360 (12)

BA 303 (4)

LEGS 301 (4)

MGMT 300 (4)

ECON 302 or 304 (4)

MKT 300 (4)

Elective (1)

Fourth year (45 hours)

FIN 450 (4)

OPRE 380 (4)*

MGMT 360 (4)*

BA 405 (4)

FIN electives (12)

Other electives (17)

Electives (hours included above)

Group I (4)

Group III (8)

Group IV (12)

Group V (8)

Finance (12) (must include FIN 342, 433, 436, 452, and/or 461)

Other electives (18) (LEGS 413, 415, 420; ACCT 439; BA 403; MKT 420; OPRE 480; ECON 303, 331, 404, 414, 451, 459; any 400-level FIN course; any INS course; and/or any MGMT course suggested)

General Business

371 Business Administration Building,
372-2747

This is a curriculum for students who desire a broad business background with a minimum of specialization, or who desire a program tailored to specific needs.

First year (48 hours)

- ENG 111 and 112 (4-8)
- MATH 124 or 131 (5)
- Communication elective (4)
- PEG 100 (3)
- MATH 125 or 231 (5)
- Other electives (23-27)

Second year (45 hours)

- ACCT 221 and 222 (8)
- STAT 211 and 212 (8)
- ECON 202 and 203 (8)
- MIS 200 (4)
- Electives (17)

Third year (45 hours)

- BA 303 (4)
- ECON 302 or 304 (4)
- FIN 300 (4)
- MKT 300 (4)
- LEGS 301 (4)
- ECON 303 or 311 (4)
- MGMT 300 and 360 (8)
- OPRE 380 (4)
- Electives (9)

Fourth year (45 hours)

Area of specialization (24) (selected from ACCT, BUSE, ECON, FIN, INS, MGMT, MIS, MKT, OPRE, and/or STAT with no more than 12 hours in any one area; select only courses that may be used to fulfill requirements in the area of specialization)

BA 405 (4)

Electives (17)

May not be combined with any other major for a double major.

Other programs

A general business administration program is offered also through the College of Arts and Sciences.

*Must complete before registering for BA 405.

**May not count as part of 24-hour area of concentration if taken to satisfy the professional core requirement.

Health Care Administration

371 Business Administration Building,
372-2747

This is an area of undergraduate studies which will provide a variety of career opportunities in community hospitals, extended care facilities, state and federal agencies, voluntary health agencies, and in various services found in health care organizations.

First year (48 hours)

ENG 111 and 112 (4-8)

MATH 124 or 131 (5)

Communication elective (4)

PEG 100 (3)

MATH 125 or 231 (5)

Other electives (23-27)

Second year (45 hours)

ACCT 221 (8)

STAT 211 and 212 (8)

ECON 202 and 203 (8)

MIS 200 (4)

Electives (17)

Third year (45 hours)

BA 303 and 325 (8)

ECON 303 or 311 (4)

FIN 300 (4)

MKT 300 (4)

LEGS 301 (4)

ECON 302 or 304 (4)

MGMT 300 and 360 (8)

OPRE 380 (4)

Electives (5)

Fourth year (45 hours)

BA 405 and 429 (12)

FIN 425 (4)

LEGS 425 (4)

ACCT 425 (4)

Electives (17)

In addition to the major, the student must also pursue intensive studies (a minimum of 20 quarter hours) in selected areas of business management such as staff planning and research, personnel administration, accountancy and controllership, and general supervision. (These courses are taken in the junior and senior years.)

The internship component of the program will provide students with practical experience and participation in the particular health care institutions and agencies in which they may be professionally interested.

Human Resource Management

264 Business Administration Building,
372-2946

This is a curriculum to prepare a student to enter the field of human resources management. Foundation courses examine theories of organization, organizational behavior, individual and interpersonal behavior, organizational assessment and planning for change. A student may select one of four areas of concentration: personnel management, organization development, production/operations management, or purchasing management. Area concentration courses in personnel

management, organization development, production management, and purchasing management prepare a student for entry-level positions within these fields.

Students are encouraged to enroll in the human resource management program as freshmen. However, to be admitted officially to the program, the student must have completed the equivalent of approximately 90 credit hours with an accumulative grade point average of 2.5 ("C+" or better). Students not meeting this requirement may petition the Management Department for conditional acceptance to the program.

First year (48 hours)

ENG 111 and 112 (4-8)

MATH 124 or 131 (5)

Communication elective (4)

PEG 100 (3)

MATH 125 or 231 (5)

Other electives (23-27)

Second year (45 hours)

ACCT 221 and 222 (8)

STAT 211 and 212 (8)

ECON 202 and 203 (8)

MIS 200 (4)

Electives (17)

Third year (48 hours)

BA 303 (4)

ECON 303 or 311 (4)

FIN 300 (4)

MKT 300 (4)

LEGS 301 (4)

ECON 302 or 304 (4)

MGMT 300, 360, 365, and 461 (16)

OPRE 380 (4)

Elective (4)

Fourth year (44 hours)

BA 405 (4)

MGMT 330 and 430 (8); or

MGMT 450 and 451 (8); or

MGMT 466 and 468 (8); or

MGMT 441, 442, and/or 445 (8)

MGMT 465 (4)

Business elective (4) (ECON 321, 423; LEGS

419; MGMT 450, 451, or 466 suggested)

Other electives (24)

Electives (hours included above)

Group I (4) (IPCO 203, 205, 306, or 307)

Group III (8)

Group IV (12) (PSYC 201, 302, 311, 352, 411,

453, 454, 456, 457; SOC 101, 301, 311, 318,

415, 416, and/or 418 suggested)

Group V (8) PHIL 103 suggested

Industrial and Labor Relations

301 Business Administration Building,
372-2646

This is an interdisciplinary program designed to prepare a student for work in industrial relations departments in corporations, government agencies, and other organizations. This program will provide the student with a series of courses in the three areas of personnel, labor relations, and the legal aspects of industrial relations.

First year (48 hours)

ENG 111 and 112 (4-8)

MATH 124 or 131 (5)

Communication elective (4)

PEG 100 (3)

MATH 125 or 231 (5)

MIS 200 (4)

Other electives (19-23)

Second year (45 hours)

ACCT 221 and 222 (8)

ECON 202 and 203 (8)

STAT 211 and 212 (8)

Electives (21)

Third year (45 hours)

ECON 302 or 304 (4)

ECON 321 (4)

LEGS 301 (4)

MGMT 300 and 360 (8)

OPRE 380 (4)

MKT 300 (4)

ECON 303 or 311 (4)

MGMT 361 or 450 (4) (students who take MGMT

361 cannot take MGMT 450 and/or 451.

Human resource management majors cannot take MGMT 361.)

FIN 300 (4)

BA 303 (4)

Elective (1)

Fourth year (45 hours)

Three courses chosen from the following, but no

more than two courses in any one field: ECON

322, 323, 423; LEGS 414, 429; MGMT 365,

451, 461 (12)

LEGS 419 (4)

BA 405 (4)

Electives (25)

Electives (hours included above)

Group I (4)

Group III (8)

Group V (8)

Group IV (12)

Insurance

201 Business Administration Building,
372-2520

This is a curriculum for the student who wishes to prepare for a career in the field of life insurance or property and casualty insurance.

First year (48 hours)

ENG 111 and 112 (4-8)

MATH 124 or 131 (5)

Communication elective (4)

PEG 100 (4)

MATH 125 or 231 (5)

Other electives (23-27)

Second year (45 hours)

ACCT 221 and 222 (8)

STAT 211 and 212 (8)

ECON 202 and 203 (8)

MIS 200 (4)

Electives (25)

Third year (45 hours)

BA 303 (4)

ECON 311 (4)

FIN 300 (4)

MGMT 300 (4)

OPRE 380 (4)

LEGS 301 (4)

ECON 302 or 304 (4)

INS 300 and 465 (8)

MKT 300 (4)

Elective (5)

Fourth year (45 hours)

MGMT 360 (4)*

LEGS 413 or 414, or FIN 330 (4)

BA 405 (4)

INS 465, 466, 469, and 470 (16)

Electives (17)

*Must complete before registering for BA 405

Electives (hours included above)

Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Suggested electives include: ECON 321, 361, 460, and 461; FIN 330, 342, 360, 433, and 436; LEGS 413 and 414.

International Business

234 Business Administration Building,
372-2041

This is a curriculum designed to provide students with an international perspective. An international concentration will help students prepare for a career with a multinational company or other organizations concerned with international business activities.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 125 or 231 (5)
MATH 124 or 131 (5)
Communication elective (4)
PEG 100 (3)
Other electives (23-27)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 211 and 212 (8)
ECON 202 and 203 (8)
MIS 200 (4)
Electives (17)

Third year (45 hours)
BA 303 (4)
ECON 303 or 311 (4)
OPRE 380 (4)
LEGS 301 (4)
MGMT 300 (4)
ECON 302 or 304 (4)
ECON 351 (4)
POLS 372 (4)
FIN 300 (4)
MKT 300 (4)
Elective (5)

Fourth year (45 hours)
MGMT 360 (4)
BA 390 and 405 (8)
Business electives (12) (must be chosen from one of the following areas: ACCT, ECON, FIN, INS, MGMT, MIS, MKT, or a selection specifically approved by an adviser)
Other electives (21)

Electives (hours included above)
Group I (4)
Group III (8)
Group IV (12)
Group V (8)
Other electives (23) (foreign language suggested)

Management Information Systems

332 Business Administration Building,
372-2767

This is a curriculum for the student who is interested in a position as a systems analyst or in a position requiring the application of computers to business problems. Emphasis is placed upon the use of the computer in a business environment. Provision is made through electives within the major (minimum of 24 hours) for application of the computer to one of the

functional areas of business such as accounting, economics, finance, management, marketing, operations research, or statistics. However, students may wish to consider management information systems as a dual major in conjunction with a functional area.

First year (48 hours)
ENG 111 and 112 (4-8)
MIS 200 (4)
Communication elective (4)
MATH 124 or 131 (5)
MATH 125 or 231 (5)
STAT 211 and 212 (8)
PEG 100 (3)
Other electives (11-15)

Second year (45 hours)
ACCT 221 and 222 (8)
CS 260 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
MGMT 300 and 360 (8)
BA 303 (4)
ECON 303 or 311 (4)
MKT 300 (4)
Major elective (4)***
FIN 300 (4)
OPRE 380 (4)
LEGS 301 (4)
CS 360 (4)
Other elective (5)

Fourth year (45 hours)
MIS 471, 473, and 474 (12)
BA 405 (4)
Major elective (4)***
ECON 302 or 304 (4)
Other electives (17)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:
Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Suggested electives include: ENG 207; MATH 232, 332, 403, and 404; CS 305, 306, 360, and 462; SPCH 102; ACCT 321, 322, 331, 332, 351, and 452; ECON 400, 401, 402, 424, and 459; FIN 430, 431, 450, 460, and 470; MKT 420 and 421; MIS 475; OPRE 480 and 485; all STAT courses; and/or all MGMT courses.

Marketing Research

234 Business Administration Building,
372-2041

This is a marketing curriculum for the student who wishes to prepare for research responsibilities in a marketing department of a manufacturer, an advertising agency, or a research service organization. For other marketing curricula, see advertising, retailing, and selling and sales management.

First year (48 hours)
ENG 111 and 112 (4-8)
MIS 200 (4)
MATH 125 or 231 (5)
MATH 124 or 131 (5)
Communication elective (4)
PEG 100 (3)
STAT 211 (4)
Other electives (15-19)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 212 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
BA 303 (4)
ECON 302 or 304 (4)
MKT 300, 401, and 420 (12)
ECON 303 or 311 (4)
OPRE 380 (4)
FIN 300 (4)
MGMT 300 and 360 (8)
Elective (5)

Fourth year (45 hours)
MKT 403 and 421 (8)
BA 405 (4)
LEGS 301 (4)
STAT electives (8)
Electives (21)

Electives (hours included above)
Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Operations Research

344 Business Administration Building,
372-2363

This is a curriculum for the student with a good mathematical background who wishes to prepare for a career in which mathematical and scientific techniques will be used to help solve business, social, and other problems. This curriculum will also provide an adequate preparation for graduate study in operations research.

First year (46 hours)
ENG 111 and 112 (4-8)
MIS 200 (4)
STAT 211 and 212 (8)
MATH 131, 231, and 232 (15)
PEG 100 (3)
Electives (8-12)

Second year (48 hours)
ACCT 221 and 222 (8)
STAT 315 (4) (offered only fall quarter; should be taken soon after STAT 212; junior standing not necessary)
MATH 233 and 332 (8)
ECON 202 and 203 (8)
ECON 302 or 304 (4)
Electives (16)

Third year (48 hours)
OPRE 380, 480, and 485 (12)
ECON 303 or 311 (4)
LEGS 301 (4)
MGMT 300 and 360 (8)
ACCT 337 (4)
MKT 300 (4)
FIN 300 (4)
BA 303 (4)
Elective (4)

Fourth year (37 hours)
OPRE 487, 488, or 489 (4)
OPRE 482 (4)
BA 405 (4)
STAT 402, 404, 406, 408, 410, 412, or 414 (4)
Electives (21)

***Eight hours must be selected from a specific functional area in business such as ACCT, ECON, FIN, MGMT, MKT, or STAT, in consultation with adviser. Courses from the selected area must form a cohesive group. A student is encouraged to use some of the electives to deepen understanding of the functional area selected.

Electives (hours included above)

- Group I (4)
- Group III (8)
- Group IV (12)
- Group V (8)

Procurement and Materials Management

264 Business Administration Building,
372-2946

This is a curriculum for the student who is interested in the procurement and materials management areas. The course of study includes an integrated approach to procurement, logistics, and materials management functions and related activities.

Students are encouraged to enroll in the procurement and materials management program as freshmen. However, to be admitted officially to the program, the student must complete the equivalent of approximately 90 credit hours or more with an accumulative grade point average of 2.5 ("C + ") or better. Students not meeting this requirement may petition the Management Department for conditional acceptance into the program.

First year (48 hours)
ENG 111 and 112 (4-8)
MIS 200 (4)
MATH 125 or 231 (5)
Communication elective (4)
PEG 100 (3)

MATH 124 or 131 (5)
STAT 211 (4)
Other electives (15-19)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 212 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
BA 303 (4)
LEGS 301 (4)
ECON 302 or 304 (4)
OPRE 380 (4)
MKT 300 (4)
ECON 303 or 311 (4)
FIN 300 (4)
MGMT 300, 330, and 360 (12)
Elective (5)

Fourth year (45 hours)
MGMT 430, 439, and 442 (12)
BA 405 (4)
MKT 340 (4)
MGMT 361, ECON 341, or DESN 104 (4)
Other electives (21)

Electives (hours included above)

- Group I (4)
- Group III (8) (laboratory or non-laboratory science suggested)
- Group IV (12) (PSYC 201; POLS 101, 201; and/or any suitable HIST course suggested)
- Group V (8) (list of suggested courses available in dean's office)

Electives (MATH 232, 332; DESN 104; MGMT 441; LEGS 414, 420 suggested)

Production and Operations Management

264 Business Administration Building,
372-2946

This is a curriculum designed for the student preparing for a career in production management. This curriculum introduces the student to the concepts and methods used in the production and operations areas.

Students are encouraged to enroll in the production and operations management program as freshmen. However, to be admitted officially to the program, the student must complete the equivalent of approximately 90 credit hours or more with an accumulative grade point average of 2.5 ("C + ") or better. Students not meeting this requirement may petition the Management Department for conditional acceptance into the program.

First year (48 hours)
ENG 111 and 112 (4-8)
MIS 200 (4)
MATH 125 or 231 (5)
Communication elective (4)
PEG 100 (3)
MATH 124 or 131 (5)
STAT 211 (4)
Other electives (15-19)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 212 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
BA 303 (4)
ECON 303 or 311 (4)
MGMT 300, 360, and 441 (12)
OPRE 380 (4)
LEGS 301 (4)
ECON 302 or 304 (4)
FIN 300 (4)
MKT 300 (4)
Electives (5)

Fourth year (45 hours)
MGMT 442, 445, and 449 (12)
BA 405 (4)
MGMT 331 and 361 (8); or MGMT 330 and 430 (8); or MGMT 365 and 447 (8)
Electives (21)

Electives (hours included above)

- Group I (4)
- Group III (8)
- Group IV (12) (PSYC 201, SOC 101, and/or POLS 101 suggested)
- Group V (8)
- Other electives (PSYC 305, PSYC 352, POLS 421, POLS 422, SOC 301, and/or SOC 415, MGMT 330, 361, 365, 430, and 447; ACCT 337; OPRE 480; and/or MATH 232 suggested)

Public and Institutional Administration

371 Business Administration Building,
372-2747

This is an area of undergraduate study which is keyed to management and administration in the non-business setting. The program will relate to management career opportunities in a variety of public or non-profit institutions. In addition to the major, the student must pursue cross-disciplinary studies (20 hours) designed to provide the management specialist with vital understandings of public policy problems. The options from which a student

may select are: policy and administration, environmental administration, criminal justice, mass media and public opinion, and urban studies.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 124 or 131 (5)
Communication elective (4)
PEG 100 (3)
MATH 125 or 231 (5)
Other electives (23-27)

Second year (45 hours)
ACCT 221 and 222 (8)
ECON 202 and 203 (8)
MIS 200 (4)
STAT 211 and 212 (8)
Electives (including prerequisites for upper-level courses required in various public policies and affairs options) (17)

Third year (48 hours)
BA 303 (4)
FIN 300 (4)
MKT 300 (4)
OPRE 380 (4)
ECON 302 or 304 (4)
POLS 302 (4)
LEGS 301 (4)
ECON 303 or 311 (4)
ECON 336 (4)
MGMT 300, 360, and 365 (12)

Fourth year (44 hours)
MKT 404 (4)
ACCT 423 (4)
ECON 331 or 332 (4)
BA 405 (4)
Public policy and affairs option (20)
Electives (8)

Public policy and affairs (20 hours—included above). Each student will select from the following options to complete 20 hours in public policy and affairs:

Policy and administration
POLS 421 (4)
POLS 331, 332, 345, 422, 423, or 430 (4)
MGMT 361 and 460 (8)
SOC 321, 402, 416, or 418 (4)

Environmental administration
ECON 435 (4)
MGMT 331 (4)
LEGS 431 (4)
GEOG 331, 442; POLS 335; SOC 412; and/or BA 437 (8)

Criminal justice
Any LEGS courses (8)
SOC 441 (4)
SOC 340, 341, 352, 442, 443; and/or POLS 347 (8)

Mass media and public opinion
JOUR 103 (4)
RTVF 260 (4)
RTVF 460, POLS 341, or POCP 165 (4)
POLS 443 (4)
JOUR 312, 340, 402, 433, or 435 (4)

Urban studies
ECON 361 and 459 (8)
SOC 316, 321, 412, or 413 (4)
POLS 430 (4)
ECON 460, GEOG 426, or BA 403 (4)

Retailing

234 Business Administration Building,
372-2041

This is a marketing curriculum for the student who wishes to prepare for managerial responsibilities in retailing. For other mar-

keting curricula, see advertising, marketing research, and selling and sales management.

First year (48 hours)
ENG 111 and 112 (4-8)
STAT 211 (4)
MATH 124 or 131 (5)
Communication elective (4)
PEG 100 (3)
MIS 200 (4)
MATH 125 or 231 (5)
Other electives (15-19)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 212 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
BA 303 (4)
ECON 302 or 304 (4)
MKT 300, 401, and 430 (12)
MGMT 300 and 360 (8)
FIN 300 (4)
ECON 303 or 311 (4)
OPRE 380 (4)
Elective (5)

Fourth year (45 hours)
MKT 403, 410, 420, and 436 (16)
LEGS 301 (4)
BA 405 (4)
Electives (21)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:
Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Secretarial Administration

242 Business Administration Building,
372-2901.

This is a curriculum for a student desiring to prepare for administrative level secretarial responsibilities in business or industrial establishments, professional offices, or government agencies. The student develops competency in secretarial skills, office procedures and management, word processing, data processing, communication, and decision making.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 125 or 231 (5)
Communication elective (4)
PEG 100 (3)
MATH 124 or 131 (5)
Electives (23-27)

Second year (45 hours)
ACCT 221 and 222 (8)
ECON 202 and 203 (8)
BUSE 210** and 220 (6)
STAT 211 and 212 (8)
Electives (11)

Third year (45 hours)
BUSE 301, 311**, 313, and 314 (13)
ECON 302 or 304 (4)
FIN 300 (4)
MKT 300 (4)
LEGS 301 (4)
ECON 303 or 311 (4)
MGMT 300 (4)
OPRE 380 (4)
Elective (4)

Fourth year (45 hours)

BA 303 (4)*
MGMT 360 (4)*
BUSE 401 and 455 (7)
BA 405 (4)
Electives (26)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:

Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Other Programs

A two-year executive secretarial program leading to the Associate in Applied Business degree also is offered through the College of Business Administration.

Selling and Sales Management

234 Business Administration Building,
372-2041

This is a marketing curriculum for the student who is interested in salesmanship or sales management. For other marketing curricula, see advertising, marketing research, and retailing.

First year (48 hours)
ENG 111 and 112 (4-8)
MATH 124 or 131 (5)
MIS 200 (4)
Communication elective (4)
PEG 100 (3)
MATH 125 or 231 (5)
STAT 211 (4)
Electives (15-19)

Second year (45 hours)
ACCT 221 and 222 (8)
STAT 212 (4)
ECON 202 and 203 (8)
Electives (25)

Third year (45 hours)
BA 303 (4)
ECON 302 or 304 (4)
MKT 300, 340, and 401 (12)
FIN 300 (4)
ECON 303 or 311 (4)
OPRE 380 (4)
MGMT 300 and 360 (8)
Electives (13)

Fourth year (45 hours)
MKT 403 and 410 (8)
BA 405 (4)
LEGS 301 (4)
MKT 420 and 441 (8)
Electives (13)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:

Group I (4)
Group III (8)
Group IV (12)
Group V (8)

Statistics

344 Business Administration Building,
372-2363

This curriculum is for the student who is interested in a career in statistical analysis and research in government or business. It is an excellent preparation for graduate study in any area.

First year (48 hours)

ENG 111 and 112 (4-8)
PEG 100 (3)
MIS 200 (4)
Communication elective (4)
MATH 131, 231, and 232 (15)
STAT 211 and 212 (8)
Electives (6-10)

Second year (44 hours)
ACCT 221 and 222 (8)
MATH 233 (4)
ECON 202 and 203 (8)
STAT 315 (4) (offered only fall quarter; should be taken soon after STAT 212; junior standing not necessary)
Electives (20)

Third year (48 hours)
BA 303 (4)
ECON 303 or 311 (4)
MGMT 300 (4)
STAT 402 (4)
ECON 302 or 304 (4)
LEGS 301 (4)
FIN 300 (4)
MKT 300 (4)
STAT elective (4)***
OPRE 380 (4)
MGMT 360 (4)
Elective (4)

Fourth year (45 hours)
BA 405 (4)
STAT electives (8)***
Electives (33)

Electives (hours included above)
Electives should be chosen to meet the following general education group requirements:
Group I (4)
Group III (8)
Group IV (12)
Group V (8)
Other electives (18) MATH 332, 441, and 442; ECON 402 and 404; OPRE 480, 482, 485, 487, 488, and 489. For further information, a student should consult an adviser.

Other programs

Two programs in statistics are offered by the College of Arts and Sciences.

Bachelor of Science in Economics

301 Business Administration Building,
372-2646

This flexible program is especially suited for the student who wishes to combine a major in economics with concentrated study in one or more other disciplines. The program can easily be adapted to accommodate a major in economics and in a cognate field and hence it is ideally suited for those seeking a dual major in such disciplines as education, geography, sociology, political science, history, mathematics, or psychology. Because economics is the science of business, students who wish to combine a major in economics with one in such functional fields of business as accounting, finance, market-

*Must complete before registering for BA 405.

**A student with insufficient or no training in shorthand or typewriting must elect the beginning or intermediate course.

***The statistics electives must be chosen from STAT 404, 406, 408, 410, 412, and 414. One of these electives must be STAT 406 or STAT 410.

ing, or management will find that the Bachelor of Science in Economics also permits maximum freedom for the individual's study of business applications. This program is designed to provide students with a meaningful educational experience that stresses professional training in economics, but which recognizes the multi-dimensional demands placed upon practicing economists in a constantly changing society. It seeks, through an adaptable structure, to provide the student with the necessary training for employment in a wide variety of occupations in business or government in which the skills of the economist are especially useful, or for continued study in professional schools or at the graduate level in economics or business.

A candidate for the Bachelor of Science in Economics must complete the general requirements for graduation listed on page 7 and meet the group requirements listed below.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 111 and 112. If a student is exempt from ENG 111, four additional hours of electives are required. ENG 110 may also be required, but only eight hours of ENG may be counted toward graduation. A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8. SPCH 102 is recommended but not required.

Group II: Foreign Language or Cultural Experience

No requirements; See Group V.

Group III: Mathematics, Science, and Quantitative Measurements

Each student is required to complete MATH 124 or 131, and MATH 125 or 231, STAT 211 and 212; plus 12 hours from MATH (except 241, 242, 243, 244, or 245), CS, MIS, or the biological and physical sciences.

Group IV: Social and Behavioral Sciences

Each student is required to complete ECON 202 and 203 plus 12 hours of social sciences outside ECON.

Group V: Humanities

Each student is urged to complete PHIL 103 or 303. Twelve hours of credit must be earned in the areas of ART, foreign languages, literature, music, PHIL, and THEA. A list of acceptable courses is available in the Department of Economics office.

Major and cognate concentration

Each student is required to complete a major in economics consisting of ECON 302, 303, 473, four hours of quantitative economics (ECON 400, 401, or 402) and 32 additional hours of ECON or approved, related courses. To complete the professional area of study a cognate concentration of 20 hours must be selected from the areas of business administration, arts and sciences, or education, after consultation with and approval of the program adviser.

Electives

The remainder of the academic program is completed with electives selected by the student in consultation with the program adviser. Depending upon interests and career objectives, a student may select courses from any area of the University in meeting this requirement.

Other programs

A major in economics also is offered as part of the Bachelor of Science in Business Administration degree. In addition, programs in economics are offered by the College of Arts and Sciences and the College of Education.

Associate in Applied Business

242 Business Administration Building, 372-2901

A student interested in secretarial administration may prefer a shorter program than the four-year curriculum leading to the Bachelor of Science in Business Administration. Upon completion of this two-year executive secretarial program, the student receives the Associate in Applied Business degree. If students should decide to continue their education after completing one or two years of this program, they may apply full credit for all courses satisfactorily completed toward the four-year degree program in secretarial administration.

A candidate for an Associate in Applied Business degree must complete the general requirements listed on page 8 and complete, at Bowling Green immediately before graduation, at least 45 of the 93 hours required.

First year (48 hours)
ENG 111 and 112 (4-8)
BA 102 (4)
BUSE 101, 210, 211, 220, and 230 (16)
PEG 100 (3)
BUSE 111, 112, 213, 214, and 215 (15)**
Electives (2-6)

Second year (45 hours)
ACCT 221 and 222 (8)
BA 303 (4)
BUSE 240, 301, 311, 314, 321, and 401 (19)
ECON 200 or 202 (4)
LEGS 301 (4)
Electives (4-6)

Suggested electives include BUSE 335, ECON 203, HOEC 105, POLS 201, SPCH 102, humanities, MATH, and sciences.

Electives

**A student who has had the beginning-level courses in typewriting or shorthand in high school should enroll in the advanced-level courses. The student with two semesters of high school typewriting or shorthand should enroll in BUSE 112 or BUSE 214. The student with four semesters of high school typewriting or shorthand should enroll in BUSE 210 or BUSE 215. A student who chooses to enroll in lower-level courses does not receive credit toward the two-year program for such courses. A student who enrolls in the advanced courses in typewriting or shorthand must substitute electives for the beginning courses to complete a minimum of 93 hours for graduation.

Other programs

A four-year program in secretarial administration is offered by the College of Business Administration leading to the Bachelor of Science in Business Administration degree. Other two-year degree programs are offered by Firelands College.

Business Administration—Education

242 Business Administration Building, 372-2901

A candidate who has met all the requirements for the degree of Bachelor of Science in Business Administration also may qualify for the degree of Bachelor of Science in Education and for an Ohio teaching certificate by completing a combined curriculum including the general and specific graduation requirements for each college.

The student who desires to pursue the combined program must:

1. Complete at least two quarters as a full-time student at BGSU with a 3.0 cumulative grade point average or better.
2. Upon completion of the above requirement, petition the board of appeals of the College of Education and the College of Business Administration to request registration in both colleges.
3. Complete 30 credit hours beyond the 183 hours required for graduation with a bachelor's degree in one college.
4. Complete the comprehensive major in business education or the distributive education major.
5. Complete PSYC 201, EDFI 302, and appropriate methods courses, as well as meet the group requirements in general education and participate in a quarter of professional concentration which includes student teaching (EDCO 331).

A student interested in teaching business or distributive education in high school should consult with the Department of Business Education in planning the program.

School of Journalism

Dr. Hal Fisher, Director,
103 University Hall, 372-0349

The Field of Journalism

Modern journalism encompasses the mass communications media—newspapers, consumer magazines, business and industrial publications, technical periodicals, trade and professional publications, radio and television. As a highly-diversified profession, journalism requires highly trained news reporters and editors for weeklies, dailies, the wire services, radio and television; specialists in photojournalism; public relations practitioners; editors for a wide range of magazines; writers in special fields such as science, business, economics, education, medicine, politics; and competent administrators to manage the editorial, advertising, and business functions of publications and other mass communication services.

The student who plans a career in professional journalism must have a broad education based on the social sciences, humanities, and natural sciences, understand the social, political, and economic role of the mass media in a democratic society, be able to read intelligently the scholarly journalism and mass communication literature, and be skilled in the professional techniques demanded by employers. To provide the opportunity to achieve these goals is the purpose of the School of Journalism.

Campus Media

The *BG News*, the four-times weekly campus newspaper (106 University Hall, 372-2601), provides opportunities to gain experience in reporting, editing, advertising, and management. In addition, a student has an opportunity to work on the *Key*, BGSU's yearbook (310 Student Services Building, 372-0086). Other publications include *Syzygy*, a campus-town magazine; and *The Obsidian* and *The Gavel*, newspapers aimed at special student interests. All these publications are under the supervision of a Board of Student Publications.

Students interested in electronic journalism may participate in the Bowling Green Radio News Organization, which supplies news, features and documentaries for the campus radio station WFAL and the University's FM station WBGU. They may also participate in the feature and documentary productions of the University's television station, WBGU-TV. Many also gain experience in writing and production of other radio and television pro-

grams on these stations. Participation in student publications and in campus-related radio and television stations is not limited to journalism students.

Training and Facilities

The School of Journalism has laboratories for reporting, electronic editing, typesetting, photography, and graphics of communication. Laboratory fees may be charged in some skills courses. A field practice requirement provides majors with professional training and experience on the staff of a daily or weekly newspaper, magazine, radio or television station, college news bureau, or public relations department of a business or industry.

Accreditation and Professional Associations

The School of Journalism has four of its programs accredited by the American Council on Education for Journalism: broadcast journalism, news-editorial, photojournalism, and public relations. The school has undergraduate chapters of three national organizations dedicated to professional interest in the field: Sigma Delta Chi, a society of journalists open to students wishing a professional association; Women in Communications; and Public Relations Student Society of America, an affiliate of the national PRSA. The school also has a chapter of Kappa Tau Alpha, the national journalism honor society. Two local organizations, the Benjamin Franklin Society and the Radio-TV News Association, are for students interested in magazine publishing and broadcast journalism, respectively. The school is a recipient of *Reader's Digest* Foundation funds which pay travel and other expenses for students researching stories away from campus that are subsequently published. Contacts with numerous professional organizations are maintained through individual faculty memberships. The School of Journalism serves as secretariat for the Great Lakes Interscholastic Press Association (GLIPA). The school also holds memberships in the American Association of Schools and Departments of Journalism and the American Society of Journalism School Administrators.

Bachelor of Science in Journalism

A candidate for the degree of Bachelor of Science in Journalism must meet the following requirements in addition to those listed on page 7.

1. Be proficient in typewriting skills by successfully completing a touch-typing course in high school or college.

2. Complete 71-75 hours of general requirements, including 16 credit hours of humanities courses, 36 hours of social science, and 12 hours of natural science courses. One natural science course must be in mathematics, statistics, or computer science.

3. Complete at least 46 credit hours in journalism, 18 hours of which are core journalism courses listed below (including at least two hours of JOUR 412) and the remaining 28 or more hours of which are in a specific sequence. No more than 54 hours in JOUR may be counted towards a Bachelor of Science in Journalism degree.

4. Earn a grade of "C" or better in all JOUR courses. A student is allowed to repeat a JOUR course only once.

5. Complete a minor of at least 30 quarter hours in a field other than journalism or complete an interdepartmental minor of 30 hours which clusters courses in two or more fields. Twenty of the 30 hours required in the minor field should be made in consultation with the student's adviser.

Note: Resources may limit class enrollment in upper-division JOUR courses, beginning with JOUR 300. Total hours earned and grade point average determine which students are given preference.

Specialization: Five Sequences

In addition to other requirements, each journalism major chooses one of five areas of specialization called sequences. The news-editorial sequence is generally associated with training for reporting and editing positions on weekly or daily newspapers and the wire services. Photojournalism combines skills in writing and photography to convey a message in words and pictures. Public relations includes inter-group communications and relating the interests of business, industry, government, and public and private institutions to each other and to society. Broadcast journalism aims at competence

in the electronic media of radio and television. Magazine journalism is concerned with the writing, editing, and publishing of magazines and journals. A student interested in teaching should see the requirements for a journalism major or minor in the College of Education.

Matriculation into Journalism Sequences

Before full matriculation into degree-granting sequences of the School of Journalism, a student must:

1. attain a combined average of at least 2.66 ("C + ") in JOUR 103, 105, and 300.
2. attain an all-university accumulative grade point average of 2.25 or better;
3. pass a standardized test in English usage prepared by the School of Journalism (this is required before a student may enroll in JOUR 300);
4. if transferring into the BGSU journalism program, have a 2.25 over-all accumulative grade point average and pass or give evidence of passing an English usage test equivalent to the one in current use in the School of Journalism; and
5. attain a 2.5 grade point average in journalism courses, a "C" in every required journalism course, and a 2.25 over-all accumulative grade point average before registering for JOUR 412, a course required for graduation.

Core Courses in Journalism

(18 hours minimum)

JOUR 103, 105, 300 and 402 (16)
JOUR 412 (2-5)

Broadcast Journalism

(30-36 hours)

JOUR 306 or RTVF 264 or RTVF 464 (4)
RTVF 263 (4)
RTVF 262 or 361 (4)
JOUR 312, 330, 331, 430, and 493 (18)
JOUR electives (up to 18 hours depending on whether a student wishes to consider RTVF required courses as part of major)
Eight hours of RTVF courses may be repeated in a SPCH minor.

Magazine Journalism

(28-36 hours)

JOUR 303, 304, 404, 416, and 492 (18)
JOUR electives (10-18)

News-editorial

(28-36 hours)

JOUR 302, 311, 312, 315, and 491 (18)
JOUR electives (10-18)

Photojournalism

(28-36 hours)

JOUR 305, 306, 307, 407, and 494 (18)
JOUR 302 or 303 (4)
JOUR electives (6-14)

Public Relations

(40-48 hours)

JOUR 303, 340, 380, 440, and 495 (18)
MKT 300 and 410 (8)
MGMT 305 or 360 (4)
JOUR electives (10-18)

Any change in program requirements or course prerequisites must have approval of the director of the School of Journalism.

Minor

Students majoring in journalism must complete either a minor of at least 30 quarter hours in a single field or discipline or an interdepartmental minor composed of selected and related courses in two or more fields other than journalism. Because it gives a student vocational flexibility, the interdepartmental minor is encouraged. At least 20 quarter hours of the minor must be in 300- and 400-level courses. Choice of a minor should be made in consultation with the student's adviser after careful consideration of career goals. Students are also encouraged to select their non-journalism elective courses carefully to provide them with further training which will aid them in their careers.

Other Programs

A program in journalism also is available through the College of Education.



College of Education

Office of the Dean

David G. Elsass, Ed.D., Dean, 444
Education Building, 372-0151
G.R. Horton, Ph.D., Associate Dean, 444
Education Building, 372-0151.

Office of Advanced Programs

Ronald L. Partin, Ph.D., Coordinator, 332
Education Building, 372-0151

Office of Teacher Education Programs

Patricia L. Mills, Ph.D., Assistant Dean, 455
Education Building, 372-0151
Larry D. Wills, Ph.D., Coordinator of
Secondary and International Teacher
Education, 442 Education Building,
372-0151

Office of Resources and Field Experiences

Donald J. Chase, Ph.D., Director, 444
Education Building, 372-0151

Office of Program Advisement and Teacher Certification

Jane Wood, M.S., Director, 365 Education
Building, 372-0151
Sally Craycraft, M.Ed., Assistant Director,
365 Education Building, 372-0151

Office of Educational Research and Services

Fred L. Pigge, Ph.D., Director, 330
Education Building, 372-0151
Robert Yonker, Ph.D., Coordinator of
Research Development, 330 Education
Building, 372-0151

Departments and Schools

Department of College Student Personnel,
Gerald L. Saddleire, Ed.D., Chair, 318
Education Building, 372-0151
Department of Educational Administration
and Supervision, Leslie Chamberlin,
Ed.D., Chair, 513 Education Building,
372-0151
Department of Educational Curriculum
and Instruction, Verlin W. Lee, Ph.D.,
Chair, 529 Education Building,
372-0151
Department of Educational Foundations
and Inquiry, Robert L. Reed, Ph.D.,
Chair, 550 Education Building,
372-0151

Department of Home Economics, Ronald
L. Russell, Ph.D., Chair, 210 Johnston
Hall, 372-2026

Department of Library and Educational
Media, Keith E. Doellinger, Ph.D., Chair,
216 Hayes Hall, 372-2461

Department of Special Education, H. John
van Duyn, Ed.D., Chair, 451 Education
Building, 372-0151

School of Health, Physical Education, and
Recreation, Betty van der Smissen,
Re.D., Director, 220 Memorial Hall,
372-2876

School of Technology, Jerry Streichler,
Ph.D., Director, 208 Technology
Building, 372-2436

Aims and Purposes

The College of Education has two primary purposes: to provide course work that contributes to the general education program of the University and to provide programs that lead to careers in the fields of education, technology, recreation, child and family development, and educational services personnel.

The college believes that quality career programs must include:

1. A program of general education designed to provide a broad and liberating educational experience for life-long learning.

2. Advanced study in one or more areas of specialized interest.

3. A program of on-campus and field-based professional experiences.

The College of Education maintains close working relationships with other colleges in the University, with elementary and secondary schools in northern Ohio for field-based experiences, with vocational schools and technical and branch colleges and with the State Department of Education for teacher certification.

The Bachelor of Science in Education and the Bachelor of Science in Technology are offered by the College of Education.

College Matriculation

Students accepted by Bowling Green State University may register in the College of Education when they have:

1. formally declared their intent to major within the College;
2. registered with the College Office of Program Advisement as a provisional member of a program or as an undecided major; and
3. conferred with an adviser assigned by the College of Education. Students transferring from another BGSU college also must have completed at least 12 quarter hours of BGSU courses with a grade point average of 2.0 or higher.

Program Matriculation

Full membership in a College of Education program will become effective when a student has:

1. completed either SPCH 102 or ENG 112 with a grade of "C" or better;
2. completed at least two other general education courses required by the program;
3. attained an accumulative grade point average at BGSU of 2.0 or higher;
4. met the additional specific requirements and application procedures that have been established by the particular program; and
5. completed EDCI 202 or EDFI 202 (or a program alternative accepted by the college) with a grade of "C" or better. Since this course and subsequent professional courses involve experience in the schools, a tuberculin test is required. Prospective teachers must also take speech and hearing tests so that they may avail themselves of appropriate corrective services if necessary. This fifth criterion applies only to students in teacher certification programs.

Due Process for Academic Decisions

The College of Education has established specific requirements for admission, program matriculation, student teaching eligibility, graduation and certification standards which are all available from the Program Advisement and Teacher Certification Office and the dean's office. Any questions regarding these requirements,

standards, or appeals related to other decisions may be directed to the above offices.

Academic appeals may be initiated at either the dean's office or Program Advisement Office. Appeal forms are available in either office. Only written appeals are considered. A rationale for the appeal is required and documentation or other evidence may be attached. The written materials constituting the appeal are then reviewed by an appeals board, which serves in an advisory capacity to the dean. Examples of academic appeals include: appeals for reinstatement after being dropped for academic reasons, appeals regarding the denial of admission to either the college or a program, and ineligibility or denial for any field experience, including student teaching. The dean of the college reserves the right of final decision and may refer cases to an appeals board or an advisory committee for recommendations.

Appeals regarding the issuance of a grade are not referred to the college office. These appeals are processed through the instructor. Each department follows its own procedures which are consistent with the recommendations of the Faculty Senate.

In cases related to academic honesty or other disciplinary action, a student is referred to the Student Code.

Advising

The College of Education maintains a staff of program counselors and faculty advisers in the Office of Program Advisement and Teacher Certification, located in 365 Education Building. This staff alerts students to specific requirements, curriculum developments, certification procedures, career options, and academic appeals procedures.

As soon as possible, the student is assigned to an adviser within the major area of study. Faculty advisers' teaching and advising schedules change every quarter. At the beginning of each quarter, faculty advisers post their schedules on their office doors or adjacent bulletin boards. The responsibility of contacting an adviser rests with the student. The Program Advisement and Teacher Certification Office supplements the advising performed at the departmental level. Program revision, certification changes, and shifts in the demands of the marketplace support a close adviser/student relationship.

Students must file a checklist by the end of the junior year with the Program Advisement and Teacher Certification Office. Once a checklist is submitted, a deficiency list indicating all unfulfilled graduation requirements is mailed to the student.

Certification

Upon successful completion of a Bowling Green teacher education program, the student receives institutional endorsement for one or more of the following Ohio teaching certificates.

Elementary

A graduate completing the elementary education major is eligible for an elementary teaching certificate, valid for teaching grades one to eight. An elementary education major who completes EDFI 342 and EDCI 357 and who student teaches in either kindergarten, first, second, or third grade is eligible for a kindergarten elementary certificate, valid for teaching grades kindergarten to eight.

High School

A graduate completing a secondary certificate major and/or minor is eligible for a high school teaching certificate, valid for teaching the major and/or minor subject area in grades seven through twelve. A candidate interested in junior and senior high school teaching is strongly recommended to select a teaching minor in addition to a teaching major.

Special

A graduate completing one of the following major programs—art, educational media, foreign language, health, industrial arts, music, or physical education—is eligible for a special teaching certificate, valid for teaching the subject from kindergarten through the twelfth grade.

Special Exceptional Children

A graduate completing one of the following majors—deaf and hard of hearing, educable mentally retarded, learning disabilities and behavior disorders; moderately, severely, or profoundly handicapped; or speech and hearing therapy—is eligible for a special exceptional children teaching certificate valid for teaching the major areas in all grades, kindergarten through twelve.

Vocational

A graduate completing either a distributive education or home economics major or a graduate completing the OWE/OWA certification pattern is eligible for a vocational teaching certificate.

Dual

Graduates can qualify for more than one teaching certificate by completing a double major or minor. Dual certification in elementary education and high school education can be obtained by the completion of the elementary major and a certifiable secondary major or minor, including the corresponding secondary methods course. Other types of dual certification are possible; additional information is available in the Program Advisement and Teacher Certification Office, 365 Education Building.

Application for Certification

Each teacher education candidate must complete an application for certification; these applications are available from the student teaching supervisors in the Program Advisement and Teacher Certification Office, 365 Education Building. Completed applications should be returned by the Program Advisement and Teacher Certification Office by the end of the second week of the graduation quarter. Ohio teaching certificates are not transferable to other states, but Ohio participates in the Interstate Agreement of Qualification of Education Personnel and has entered into an implementation contract with 28 states.

Teachers who already hold certificates but who wish to qualify for another type of certificate may do so by following specified retraining programs; outlines of these programs can be obtained in the Program Advisement and Teacher Certification Office, 365 Education Building.

Intercollege Curricula

A candidate for a degree from the College of Education who desires a second degree from the College of Health and Community Services, College of Arts and Sciences, or College of Business Administration may take work in that college after graduation to complete degree requirements or qualify for the dual degree program prior to graduation. Students desiring a dual degree must:

1. secure permission of the deans of both colleges before the end of the junior year.
2. maintain an accumulative grade point average of 3.0 or better based upon at least two quarters of work at Bowling Green.
3. complete the requirements of both colleges for the degree sought.
4. complete at least 30 hours of credit beyond the hours required for a single degree.

Bachelor of Science in Education

A candidate for the degree of Bachelor of Science in Education must complete the following requirements for graduation in addition to those listed on page 7.

1. Meet all requirements for a major including prerequisites, laboratory experiences, personal fitness, and other regulations;
2. Complete 63 quarter hours of credit from the areas identified under General Education Requirements.

General Education Group Requirements

The College of Education requires all candidates for baccalaureate degrees to demonstrate, through the satisfactory completion of 63 quarter hours of general education credit, that they have: (A) developed skills in listening, speaking, reading, writing, mathematics, critical thinking, and conflict resolution; (B) achieved an understanding of literature, the fine arts, and other humanities; of the natural sciences and technology, of the social and behavioral sciences, and of cultures other than one's own; and (C) experienced personal development through integration of physical development with the understanding of self and relationships to others. It is expected that the final outcome of the student's general education will be the ability to integrate the skills developed with the understandings achieved and that this integration will be incorporated in the student's personal development.

Group I: Communication

Each student must complete ENG 112 or equivalent and SPCH 102. Students have demonstrated acceptable performance in English skills if they have received a satisfactory grade in ENG 112. A penalty is imposed if ENG 112 is not completed before the junior year. See page 8. Minimum total: 8 hours.

Group II: Foreign Language or Cultural Experience

See Group V.

Group III: Mathematics and Science

Each student must complete 14 hours of credit selected from the areas of ASTR, BIOL, CHEM, CS, GEOL, MATH, PHYS, or GEOG 125, 126, 127, 212, 213, 404, 405, 427, 433, 460, 464. This course work must be in a science and mathematics or in at least two sciences. Minimum total: 14 hours.

Group IV: Social Sciences

Each student must complete 14 hours of credit selected from the areas of ECON, GEOG, HIST, LEGS, POLS, PSYC, and SOC. The course work must be in at least two social sciences and must include PSYC 201. Minimum total: 14 hours.

Group V: Literature, Fine and Applied Arts

Each student must complete a literature course and nine hours of credit in one or more of the following areas: ART, BUSE, crafts, THEA and RTVF, foreign language, HOEC, VCT, L&EM, modern dance, music, and PHIL. The literature requirement can be fulfilled by taking any literature course offered by the English department (except ENG 342) or a literature course in translation offered by a foreign language department. Minimum total: 13 hours.

Total General Education Requirements

Some of the programs of study leading to the Bachelor of Science in Education may exceed the 63 hours required in general education.

Professional Requirements

In addition to general education requirements, all students pursuing programs leading to teaching certification must complete a sequence of courses in professional education. This course work is integrated with directed observation and participation in school settings (field experiences) and is accompanied by on-campus clinical experiences. Professional education course work required in each of the teacher education program areas is shown below along with credit hour and clinical/field hour totals.

Business Education: EDCO 331; EDCI 202 or EDFI 202; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; and BUSE 314, 352, 354, 356 (comprehensive with shorthand only), 358, 462, and 466 (57-59/603-623).

Educable Mentally Retarded: EDCO 381; EDCI 202 or EDFI 202; L&EM 301; EDCI 355 and 359; EDFI 302, 402 or 429, and 408; EDAS 409; ART 482; PEP 433; and EDSE 431, 433, 437, 442, 443, 447, 448, 451, and 453 (86-89/752).

Elementary Education: EDCO 381; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDFI 302, 402, and 408; EDAS 409; MUED 353; PEP 342; ART 343 or IE 316; and EDCI 351, 352, 353, 355, 356, 359 or 420, and 423 (71-73/707).

Foreign Languages: EDCO 331; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDFI 302, 402, and 408; EDAS 409; and EDCI 373 and 490 (45/497).

Health: EDCO 331; L&EM 301; EDCI 202 or EDFI 202; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; and HED 230, 348, 349, 393, 409 and 481 (60/628).

Hearing Impaired: EDCO 381; EDCI 202 or EDFI 202; L&EM 301; EDCI 355 and 360; EDFI 302, 402 or 429, and 408; EDAS 409; ART 482; PEP 433; EDSE 431, 442, 451, 461, 462, 463, 464, and 465; and CDIS 434 and 436 (78/688).

Home Economics: EDCO 331; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; and HOEC 250, 352, 353, and 354 (58/647).

Industrial Arts: EDCO 331; EDCI 202 or EDFI 202; L&EM 301 or VCT 203; EDFI 302, 402, and 408; EDAS 409; and IE 252, 288, 316, 352, 447, 448, and 449 (58-60/582-592).

Learning and/or Behavior Disorders: EDCO 381; EDCI 202 or EDFI 202; L&EM 301; EDCI 355; EDFI 302, 402 or 429, and 408; EDAS 409; ART 482; PEP 433; and EDSE 431, 433, 437, 442, 443, 453, 455, and 458 (84-87/761).

Media Specialist/Librarian: EDCO 331; EDCI 202 or EDFI 202; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; and L&EM 301, 407, 411, 428, 430, and 450 (63/560).

Moderate, Severe, and Profoundly Handicapped: EDCO 381; EDCI 202 or EDFI 202; L&EM 301; EDCI 355 and 359; EDFI 302, 342, 402 or 429, and 408; EDAS 409; ART 482; PEP 433; and EDSE 431, 433, 437, 440, 442, 443, 451, and 470 (78-81/722).

Music Education: EDCO 331; EDSE 311; EDCI 360; EDFI 302, 402, and 408; EDAS 409; MUED 240 and 340. (54/495) Music education is a major within the College of Musical Arts. See p. 109 for content and general education requirements.

Physical Education, Plan I: EDCI 202 or EDFI 202 or PEP 233; EDCO 331; L&EM 301 or VCT 203; EDSE 311 or PEP 433; EDFI 302; EDFI 402 or PEP 402; EDFI 408; EDAS 409; PEP 237, 238, 241, 332, 387, 428, and 438; and HED 409 (69-73/731-777).

Physical Education, Plan II: EDCI 202 or EDFI 202 or PEP 247; EDCO 331; L&EM 301; EDSE 311 or PEP 433; EDFI 302; EDFI 402 or PEP 402; EDFI 408; EDAS 409; PEP 241, 254, 256, 356, 412, and 468; and HED 409 (63-65/522-575).

Physical Education, Plan III: EDCO 331; EDCI 202 or EDFI 202; L&EM 301; EDSE 311 or PEP 433; EDCI 360; EDFI 302; EDFI 402 or PEP 402; EDFI 408; EDAS 409; PEP 241, 254, 352, 392, and 412; and HED 409 (64-65/705-724).

Secondary: EDCO 331; EDCI 202 or EDFI 202; L&EM 301; EDSE 311; EDFI 302, 402, and 408; EDAS 409; and EDCI 360, 370, and one of the following: EDCI 371, 372, 374, 375, 376, 377, or 378 (49/552).

Speech and Hearing Therapy: EDCO 331; EDCI 202 or EDFI 202; L&EM 301; EDSE 311 or 431; EDCI 355; EDFI 302, 402, and 408; EDAS 409; EDSE 451; and CDIS 391, 424, 426, 427, 434, and 435 (67/602).

Visual Arts: EDCO 331; EDCI 202 or EDFI 202; L&EM 301 or VCT 203; EDSE 311; EDFI 302, 402, and 408; EDAS 409; and ART 252, 352, 353, and one of the following: 481, 482, 483, 488, or 495 (55-57/560-610).

Student Teaching

Student teaching is the culminating field experience in the student's teacher education program. It may be taken as early as the last quarter of the junior year. During student teaching, the student devotes full-time to teaching and to participation in the school's activities under the guidance of a cooperating teacher and campus field supervisor. The student is assigned to one situation and progresses from observation and directed participation to responsibility for full-time teaching. The student is guided in studies of child development, specific teaching skills, and the planning of a balanced program of a learning situation, and is expected to participate in the curricular, extracurricular, and professional activities of the school.

A student in physical education, music, or art ordinarily teaches in both elementary and secondary schools. Programs for the student in public school music are individually planned to give proper balance or concentration in vocal or instrumental experience.

The college attempts to place student teachers in the best available stations. While student preferences are taken into consideration, they cannot be met in all cases. Stations must have both college and program approval.

Student Teaching Eligibility Requirements

To be eligible for assignment in student teaching, the student must:

1. Complete 125 hours of college credit, including
 - a) ENG 112;
 - b) SPCH 102;
 - c) PSYC 201;
 - d) EDFI 302;
 - e) Methods course(s) required for the program.
2. Complete all specific requirements for student teaching eligibility listed on the official program check sheet available from the Program Advisement Office.
3. File an application for student teaching in the Field Experiences Office, 444 Education Building, not later than the first two weeks of the quarter preceding anticipated student teaching.
4. Earn an accumulative grade point average of 2.20 with no incompletes at the end of the quarter prior to student teaching.
5. Be fully accepted in a College of Education Teacher Certification Program either as an undergraduate student or baccalaureate degree holder (the school nurse program is an exception).
6. Have a satisfactory performance record in course related field and clinical experiences.

Student teaching may be deferred or denied by the dean upon the recommendation of the Field-Experience Advisory Committee of the College of Education.

International Teacher Education Programs

The College of Education offers interested education majors an opportunity to complete the educational component of student teaching in an international setting.

Selected individuals will be placed in American bi-national schools in Bogotá, Colombia; Campinas, Brazil; Toronto, Ontario; or Montreal, Quebec, for an 11-week student teaching program. Most students are housed by host national families for an increased intercultural experience. Student teaching abroad enables individuals to understand the educational, cultural, and political effect another country has on the United States and the world.

Interested students should direct inquiries and applications to the Director of International Teacher Education Programs, 442 Education Building, Bowling Green State University, Bowling Green, Ohio 43403.

Content Area Requirements

Content specializations as described within a major, minor, or other concentration are indicated in the respective curriculum outlines as specified by a program area, department, or school. These specializations are subject to college approval

and, in the case of teacher certification, fields are based upon the Revised Code of Ohio Statutes and Regulations of the State of Ohio Department of Education.

The content specializations follow alphabetically within the *Bulletin*. Offerings within the School of Health, Physical Education, and Recreation; the School of Technology; and the Department of Home Economics have been grouped by unit with selective cross-referencing.

Check sheets and supplementary advising materials are available in the Program Advisement and Teacher Certification Office. Any student completing one of the following teaching majors must also complete a designated professional education sequence. Check page 75 for the specified professional education courses.

Aerospace Education

214 Technology Building, 372-2436

Minor (certifiable for aerospace education) (30 hours)

TECH 191 (4)
ET 291 (4)
AERT 341 and 342 (4)
GEOG 213 and/or TECH 289, 389, 391 and/or
AERT 343, 344, 345, 401, 490 and/or EDCO
382 (18)

American Studies

214 University Hall, 372-0110

Major (Option I) (meets high school certification in English, history, geography, political science, or sociology, depending upon the student's area of concentration) (78-116 hours)

ART 441 and 442 (6)
PHIL 315 and 415 (8)
AMST 200 and 400 (8)
SOC 101 and SOC 231, 311, 315, 316, 413, or
418 (8); or GEOG 225, 230, or 350 and GEOG
231, 325, 326, 333, 335, 351, 402, 425, 426,
430, 436; or 451 (8-9)
HIST 205 and 206 (8)
POLS 301, 304, 331, 332, 341, 345, 346, 347,
416, 417, 418, 421, 422, 430, 432, 440,
and/or 442 (8)

One area of concentration: English (31 additional hours including ENG 301 and 380, and 481, 482, or 483); geography (22 additional hours in GEOG), history (37 additional hours in HIST), political science (22 additional hours in POLS), or sociology (22 additional hours in SOC).

ENG 303, 304, and/or 305 (10)
Electives in the field of specialization are selected with the approval of the major adviser; at least one-half of the major courses must be at the 300-400 level.

Major (Option II) (meets high school certification in history and English) (121 hours)

ART 441 or 442 (3)
ENG 303, 304, and/or 305 (10)
HIST 205 and 206 (8)
PHIL 315 and 415 (8)
AMST 200 and 400 (8)
SOC 231, 311, 315, 316, 413, or 418 (4)
SOC 101 (4)

Additional courses in ENG (27) and additional courses in HIST (37)

POLS 301, 304, 331, 332, 341, 345, 346, 347
416, 417, 418, 421, 422, 430, 432, 440,
and/or 442 (8)

Other programs

Programs in American Studies also are available through the College of Arts and Sciences.

Art

116B Fine Arts Building, 372-2786

Major (meets special certification, kindergarten-twelfth grade) (72 hours)

ART 102, 103, 104, 112, 145, 146, 147, 205,
213, 261, 263, 277, 321, 371, and 373 (45)
ART 211 or ART 212 (3)
Advanced Sequence Study in one area (9)
Art history elective (3)
Art electives (6)
Art crafts electives (6)

Minor (meets high school certification) (46 hours)

ART 102, 103, 104, 112, 145, 146, 147, 205,
211, 261, 277, 353, and 371 (40)
ART electives (6)

Minor (elementary education majors only) (46 hours)

ART 102, 103, 104, 112, 145, 146, 147, 205,
211, 261, 277, 352, and 371 (40)
ART electives (6)

Minor (does not lead to certification) (36 hours)

ART 102, 103, 104, 112, 145, 146, 147, 205,
211, 261, 277, and 371

Other programs

Programs in art also are offered by the College of Arts and Sciences and its School of Art.

Asian Studies

442 Education Building, 372-0151

Major (meets high school certification in social studies) (112 hours)

HIST 280 and 291 (8)
HIST 382, 386, 483, and/or 486 (8)
POLS 101, 301, 423, and 460 (16)
SOC 101, 231, and 331 (12)
ENG 262 and 324 (8)
ART 458 and 459 (6)
ECON 202, 203, and 371 (12)
SOC 419 (4)
PHIL 321 and 322 (8)
Electives in social sciences approved by
adviser (10)
HIST 205 or 206 (4)
GEOG 121, 230, 344, and 345 (16)

Other programs

Programs in Asian studies also are available through the College of Arts and Sciences.

Astronomy

529 Education Building, 372-0151

Endorsement (leads to a strong background in astronomy, but does not lead to teacher certification) (13-16 hours)

ASTR 201 (4)
ASTR 210, 305, 307, 309, 403, and/or 407 (9-12)

Other programs

Programs in astronomy also are available through the College of Arts and Sciences.

Athletic Coaching

See School of Health, Physical Education, and Recreation, page 90.

Athletic Training

See School of Health, Physical Education, and Recreation, page 90.

Biological Sciences

529 Education Building, 372-0151

Major (meets high school certification) (49-50 hours)

BIOL 201, 202, 203, 301, 350, and 352 (25)
CHEM 213 (4) or CHEM 308 and 309 (6)
Electives in BIOL (20)—at least one from each of these groups must be included: BIOL 321, 354, 412, 420, 422, or 425; BIOL 407, 408, 411, 413, 417, 418, 436, 438, 439, 443, or 446.

Minor (meets high school certification) (34 hours)

BIOL 201, 202, 203, 301, 350, and 352 (25)
CHEM 111 (4)
Elective in BIOL (5)

Other programs

Programs in biological sciences are also offered through the College of Arts and Sciences.

Business Education

242 Business Administration Building,
372-2901

Major—comprehensive with shorthand (meets high school certification in comprehensive business education and shorthand) (66 hours)

First year
BUSE 101 (4)

Second year
ACCT 221 and 222 (8)
ECON 200 or 202 (4)
BUSE 210*, 211, 230, and 240 (13)

Third year
BUSE 301, 311*, and 321 (10)
MKT 300 (4)
BA 303 (4)
LEGS 301 (4)

Fourth year
BUSE 335 or 455 (3)
MKT 340, 410, or 430 (4)
BUSE 401 and 466 (8)

Major—comprehensive without shorthand (meets high school certification in comprehensive business education) (63 hours)

First year
BUSE 101 (4)

Second year
ACCT 221 and 222 (8)
ECON 200 or 202 (4)
BUSE 210*, 211, 230, and 240 (13)

Third year
BUSE 301 and 321 (7)
LEGS 301 and 302 (8)
BA 303 (4)
MKT 300 (4)

Fourth year
BUSE 335 or 455 (3)
BUSE 466 (4)
MKT 340, 410, or 430 (4)

Minor—bookkeeping and basic business (meets high school certification in bookkeeping and basic business) (36 hours)

ACCT 221 and 222 (8)
BUSE 240, 321, 352, and 354 (13)
ECON 200 or 202 (4) and ECON 203 (4)
Electives in ACCT, LEGS, or economic geography (7)

Minor—sales communication (meets high school certification in sales communication) (34 hours)

Second year
BUSE 240 (4)

Third year
BA 303 (4)
MKT 300 and 340 (8)
BUSE 321 and 364 (7)

Fourth year
MKT 430 and 436 (8)
Approved elective in accounting, advertising, economic geography, office procedures, office machines, merchandising, or typing (3)

Minor—stenography and typing (meets high school certification in stenography and typing) (34 hours)

Second year
BUSE 210*, 211, 215*, and 220 (12)

Third year
BUSE 301, 311, 356, and 358 (11)
BA 303 (4)

Fourth year
BUSE 335 or 455 (3)
BUSE 401 (4)

Vocational work experience (see work experience)

Chemistry

529 Education Building, 372-0151

Major (meets high school certification) (41 hours)

First year
CHEM 121, 122, and 123 (15) or CHEM 131, 132, and 133 (15)

Second year
CHEM 201 (for those having taken CHEM 123) (5)

Third and fourth years
CHEM 343, 344, and 345 (14)
CHEM 352 (5) or CHEM 431 and 432 (5)
CHEM 308, 309 (or CHEM 445), 310, 321, 413, 433, 434, 435, 440, 460, and/or 461 (2-7)

Minor (meets high school certification) (30 hours)

First year
CHEM 121, 122, and 123 (15) or CHEM 131, 132, and 133 (15)

*A student with insufficient training in shorthand or typewriting must take a beginning or intermediate course.

Second, third, and fourth years
CHEM 201 (for those having taken CHEM 123) (5)
CHEM 306 or 343 (4-5)
CHEM 308 and 309 (6) or CHEM 352 (5)
CHEM elective at 300- or 400-level (for those not taking CHEM 201) (5)

Other programs

Programs in chemistry also are offered through the College of Arts and Sciences.

Child and Family Development

See Department of Home Economics, page 85.

Communications

365 Education Building, 372-0151

Major (meets high school certification in communications comprehensive) (102-103 hours)

First and second years
ENG 380 (5)
ENG 202, 204, 205, or 206 (4)
VCT 203 or 208 (4)
IPCO 306 (4)
POPC 165, AMST 200, or ENG 208 (4)

In addition, each student must complete either Option I or Option II:

Option I (speech concentration)
SPCH 351 (4)
IPCO 203 and 205 (8)
RTVF 260 or 466 (4)
RTVF 262, 263, or 264 (4)
ENG 320, 323, or 325 (4)
THEA 202 and 241 (7)
CDIS 223 (4)
ENG 301, 304, 305, and 311 (19)
JOUR 103, 105, and 300 (12)
IPCO 204, 303, 304, and/or 305 (8)
THEA 145, 341, 344, or 348 (3-4)
ENG 481, 482, or 483 (4)

Option II (English concentration)
THEA 202 and 241 (7)
RTVF 260 and 364 (8)
ENG 301, 304, 305, and 311 (19)
ENG 481, 482, or 483 (4)
ENG 309, 310, 322, 415, or 416 (4-5)
EDCI 359 (5)
IPCO 203 and 205 (8)
CDIS 223 (4)
JOUR 103, 105, and 300 (12)
ENG 320, 323, 325, 330, and/or 333 (8)
ENG 290, 342, 343, 372, and/or 488 (8-10)

Other programs

Programs in communication also are available through the College of Arts and Sciences.

Computer Science

365 Education Building, 372-0151

Major (meets high school certification) (60-61 hours)

CS 101 or 103 (4-5)
CS 104, 200, 201, 202, 205, 305, 306, 307 (30)
MATH 131 and 231 (10)
MATH 222 or 322 (4)
Two or more 400-level CS courses (8)

The following courses may not be applied to the major requirement: CS 100, 180, 260, 390, 400, 490.

Minor (meets high school certification) (30 hours)

CS 101 or 103 (4-5)
CS 104, 201, and 205 (12)
CS electives (13-14)

The following courses may not be included in the minor requirement: CS 100, 180, 260, 390, 400, 490.

Other programs

Programs in computer science also are offered through the College of Arts and Sciences.

Dietetics

See Department of Home Economics, page 85.

Distributive Education

284 Business Administration Building, 372-0051

Major (meets vocational certification in distributive education) (38-41 hours)

BUSE 101, 240, and 491 (10-13)
ECON 200 (4)
MKT 300, 340, 410, 430, and 436 (20)
BUSE 463 or 465 (4)

Minor (meets vocational certification in distributive education) (28 hours)

BUSE 364, 461, and 462 (12)
MKT 300 and 340 (8)
BUSE 463 or 465 (4)
MKT 410, 430, or 436 (4)

Vocational work experience

See work experience

Driver Education

See School of Health, Physical Education, and Recreation, page 87.

Early Childhood Education

See Department of Home Economics, page 84.

Earth Science

529 Education Building, 372-0151

Major (meets high school certification in earth science) (47 hours)

First year
GEOL 103, 104, and 105 (12)
Second and third years
GEOG 125 and 213 (8)
GEOL 210, 304, 305, and 306 (17)

Fourth year
GEOL 493 (9)

Minor (meets high school certification in earth science) (33-34 hours)

GEOL 103, 104, 105, 210, and 304 (21)
GEOL 125 and 213 (8)
GEOL 305 or 306 (4)

Economics

442 Education Building, 372-0151

Major (meets high school certification in economics) (44 hours)

Second year
ECON 400 (except for students who have completed MATH 124 or 131) (4)
ECON 200 or 202 (4)
ECON 203 (4)

Third and fourth years
ECON 302, 303, and 473 (12)
Electives in ECON (20-24) (Students who plan to do graduate work in ECON should take ECON 401)

Minor (meets high school certification) (32 hours)

Second year
ECON 400 (except for those who have completed MATH 124 or 131) (4)
ECON 200 or 202 (4)
ECON 203 (4)

Third and fourth years
ECON 303 (4)
Electives in ECON (16-20)

Other programs

Programs in economics also are offered through the College of Arts and Sciences and the College of Business Administration.

Educable Mentally Retarded

451 Education Building, 372-0151

Major (meets special exceptional children kindergarten-twelfth grade certification; see special curriculum below)

First year (45-46 hours)
ART 101 (3)
ENG 112 (4)
PEG 100 (3)
HIST 151 or 152 (4)
PSYC 201 (5)
BIOL 104 (5)
GEOG 121 and 122 (6)
HED 110 (2)
SPCH 102 (4)
EDCI 202 or EDFI 202 (3)
Physical science elective (4)
Elective (2-4)

Second year (45 hours)
HIST 205 and 206 (8)
EDFI 302 (4)
ENG literature (4)
L&EM 301 (2)
MATH 241 and 242 (9)
EDSE 431, 451, and 433 (11)
MUED 249 (3)
Physical science elective (4)

Third year (47 hours)
PSYC 303 or 304 (3)
PEP 433 (4)
ENG 342 (4)
CDIS 423 (4)
EDCI 355 and 359 (8)
ART 482 (4)
EDSE 447, 448, and 456 (12)
MUED 349 (3)
Social science elective (4)

Fourth year (47 hours)
EDFI 408 (4)
EDAS 409 (4)
EDCO 381 (15)
HED 346 (3)
EDSE 437, 442, 443, 453, and 457 (17)
EDFI 402 or 429 (4)

Elementary Education

365 Education Building, 372-0151

Major curriculum (meets elementary education, grades 1-8)

First Year (45 hours)
ART 101 (3)
ENG 112 (4)
PEG 100 (3)
GEOG 121 and 122 (6)
HED 110 (2)
SPCH 102 (4)
BIOL 101 or 104 (5)
EDCI 202 or EDFI 202 (3)
HIST 151 or 152 (4)
GEOL, CHEM, PHYS, ASTR, or physical science —two different physical sciences must be selected (8)

Electives or minor (3-4)

Second Year (46 hours)
MATH 241 and 242 (9)
MUED 249 (3)
ENG literature elective (4)
HIST 205 and 206 (8)
PSYC 201 (5)
ECON, SOC, POLS, LEGS, PSYC, GEOG, HIST (not already required) (8)
Electives or minor (9)

Third Year (46 hours)
ART 343 or IE 316 (3-4)
EDCI 351, 352, 353, 355, and 356 (15)
PEP 342 (4)
CDIS 423 (4)
HED 346 (3)
ENG 342 (5)
MUED 349 (3)
EDSE 311 (3)
L&EM 301 (2)
EDFI 302 (4)

Fourth year (46 hours)
EDCO 381 (15)
EDAS 409 (4)
EDFI 402 and 408 (8)
EDCI 359 or 420 (4-5)
EDCI 423 (4)
Electives or minor (11)

Completion of EDFI 342, EDCI 357, and student teaching in a kindergarten through third grade setting will meet certification for grades kindergarten through eight.

English

206G University Hall, 372-2576

Major (meets high school certification in English) (57 hours)

Group I
ENG 202 or 205 (4)
ENG 301, 343, 380, and 381 (17)
ENG 201, 207, or 251 (4)
ENG 481, 482, or 483 (4)

Group II
ENG 309, 310, 402, 403, 404, or 411 (4-5)
ENG 303, 304, 305, 311, 417, or 418 (4-5)

Group III
ENG 203, 325, 335, 401, 406, or 410 (4)
ENG 204, 206, 322, 323, 324, 333, 415, 416, or 435 (4)

Group IV

ENG 203, 204, 206, 261, 262, 263, 303, 304, 305, 306, 309, 310, 311, 320, 322, 323, 324, 325, 330, 333, 335, 372, 400, 401, 402, 403, 404, 406, 408, 410, 411, 415, 416, 417, 418, 419, 420, 423, 430, 435, 452, 453, 454, 455, and/or 456 (12-13)

At least two of the seven courses from Groups II, III, and IV must be at the 400 level.

Minor (meets high school certification in English) (51 hours)

Group I

ENG 202 or 205 (4)
ENG 301 and 380 (9)
ENG 201, 207, or 251 (4)
ENG 381, 481, 482, or 483 (4)
EDCI 360, 370, 371 (10)

Groups II and III same as for majors (16-18)

Group IV same list as for majors, but choose one course (4-5)

At least one of the five courses from Groups II, III, and IV must be at the 400 level.

Other programs

Programs in English also are offered through the College of Arts and Sciences.

Environmental Education

550 Education Building, 372-0151
124 Hayes Hall, 372-0207

Major (Three separate tracks are individually designed to *supplement* existing certifiable majors, including elementary education, most science majors, and recreation majors)

Minor (33-34 hours)

BIOL 101 (5)
Three courses from: EDFI 415, 416, 490, EDCI 427

Four courses from PHYS 101; BIOL 203; GEOG 331, 442; HIST 338; ECON 435; POLS 335, 336; PHIL 332; ENVR 421

Environmental Science

529 Education Building, 372-0151

Major (meets high school certification in biological sciences, general science, and health) (91-103 hours)

BIOL 101, 201, 202, 203, 301, 321, 322, 332, and 490 (40)

PHYS 100 (4)

HED 110, 209, 313, 340, 409, and 480 (22)

MATH 122, 124, or 130 (or high school equivalent) (5)

GEOG 421 (4)

Elective in CS or STAT (4)

CHEM 213 or 306 (4-5)

Select two: HED 338, 346; PEP 443; HOEC 105, 120, 207, 302, 407; BIOL 313, 406, 421; and/or PSYC 305 (6-10)

SOC 101 (4)

CHEM 111 and 112 (8) or CHEM 121, 122, and 123 (15)

Recommended

EDCI 375 and 427 (8)

EDFI 415 and 416 (8)

Other programs

Environmental programs are also offered through the College of Arts and Sciences and the College of Health and Community Services. Contact the Center for Environmental Programs, 124 Hayes Hall, for additional information.

Family Life Education

See Department of Home Economics, page 84.

French

314 or 365 Education Building, 372-0151

Major (meets special certification, kindergarten-twelfth grade) (36 hours of French beyond 202 plus EDCI 373 and 383)

FREN 350 (may be waived by department), 351, 352, 353, 361, 362, 371, and 372 (24)

At least four 400-level courses in FREN, one of which must be in literature (12)

EDCI 373 and 383 (8)

Minor (meets high school certification and validation of elementary certificate (25-28 hours of French beyond 202 plus EDCI 373 and 383)

FREN 350 (may be waived by department), 351, 352, 353, 361, 362, 371, and 372 (24)

EDCI 373 and 383 (8)

FREN elective (1-4)

Other programs

Programs in French also are available through the College of Arts and Sciences.

Geography

442 Education Building, 372-0151

Major (meets high school certification in geography) (48 hours)

GEOG 125, 126, 127, 212, 213, 404, 405, 427, 433, 460, 464, and/or 471 (8)

GEOG 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, and/or 351 (8)

GEOG 225, 230, 231, 325, 326, 327, 331, 332, 333, 334, 335, 402, 425, 426, 430, 436, 442, 451, and/or 452 (8-9)

Electives in GEOG (24)

Minor (meets high school certification in geography) (32 hours)

GEOG 125, 126, 127, 212, 213, 404, 405, 427, 433, 460, 464, and/or 471 (8)

GEOG 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, and/or 351 (8)

GEOG 225, 230, 231, 325, 326, 327, 331, 332, 333, 334, 335, 402, 425, 426, 430, 436, 442, 451, and/or 452 (8-9)

Electives in GEOG (8)

Other programs

Programs in geography also are offered through the College of Arts and Sciences.

German

314 or 365 Education Building, 372-0151

Major (meets special certification, kindergarten-twelfth grade) (34 hours)

GERM 317, 318, and 417 (12)

GERM electives beyond 202 (GERM 260 and 360 may not be counted toward the major) (22)

EDCI 373 and 383 (8)

Minor (meets high school certification and validation of elementary certificate) (33 hours)

GERM 317, 318, and 417 (12)

EDCI 373 and 383 (8)

GERM electives beyond 202 (GERM 260 and 360 may not be counted toward the minor) (13)

Other programs

Programs in German also are available through the College of Arts and Sciences.

Health

See School of Health, Physical Education, and Recreation.

Hearing Impaired Program

451 Education Building, 372-0151

Major curriculum (meets special kindergarten-twelfth grade exceptional children certification)

First year (46 hours)

ART 101 (3)

ENG 112 (4)

PEG 100 (3)

HIST 151 or 152 (4)

CDIS 223 (4)

EDCI 202 or EDFI 202 (3)

BIOL 104 (5)

GEOG 121 and 122 (6)

HED 110 (2)

SPCH 102 (4)

GEOG, CHEM, PHYS, ASTR, physical GEOG—two different physical sciences must be selected (8)

Second year (51 hours)

HIST 205 and 206 (8)

PSYC 201 (5)

EDFI 302 (4)

CDIS 226 and 324 (8)

L&EM 301 (2)

MATH 241 and 242 (9)

EDSE 431 and 451 (8)

ENG literature (4)

MUED 249 (3)

Third year (45 hours)

ART 482 (4)

ENG 342 (5)

PEP 433 (4)

PSYC 324 (4)

EDSE 461, 462, 463, 464, and 465 (15)

CDIS 328, 434, and 436 (10)

PSYC 303 or 304 (3)

Fourth year (46 hours)

EDFI 402 and 408 (8)

EDCI 355 and 360 (6)

EDAS 409 (4)

EDCO 381 (15)

EDSE 442 and 456 (7)

HED 346 (3)

MUED 349 (3)

History

442 Education Building, 372-0151

Major (meets high school certification) (48 hours)

HIST 301, 302, 303, 306, 307, 320, 325, 326, 337, 419, 420, 421, 422, 425, 426, 427, 428, 429, 430, 432, 433, 435, 436, 437, or 438 (4)

HIST 305, 309, 310, 315, 316, 340, 382, 401, 411, 413, 414, 441, 442, 462, 481, 483, 488, or 489 (4)

HIST 101, 151, 152, 205, 206, 207, 210, and/or 280 (16)

HIST 357, 363, 367, 377, 415, 443, 444, 445, 446, 448, 449, 450, 453, 457, 458, 459, 464, 469, or 470 (4)

HIST electives, including at least four courses at 400-level (20-22)

Minor (non-certifiable) (32 hours)

HIST 301, 302, 303, 306, 307, 320, 325, 326, 337, 419, 420, 421, 422, 425, 426, 427, 428, 429, 430, 432, 433, 435, 436, 437, or 438 (4)
 HIST 305, 309, 310, 313, 315, 316, 340, 382, 401, 411, 413, 414, 441, 442, 462, 481, 483, 488, or 489 (4)
 HIST 101, 151, 152, 205, 206, 207, 210, and/or 280 (16)
 HIST 357, 363, 367, 377, 415, 443, 444, 445, 446, 448, 449, 450, 453, 457, 458, 459, 464, 469, or 470 (4)
 HIST electives (4)

Other programs

Programs in history also are offered through the College of Arts and Sciences.

Home Economics

See Department of Home Economics, page 84.

Industrial Education and Technology

See School of Technology, page 91.

International Studies

442 Education Building, 372-0151

This interdepartmental program is for the student interested in a career in international affairs; the electives in the field of specialization are selected with the approval of the major adviser.

Major (meets high school certification in social studies providing the student fulfills the requirements outlined under social studies comprehensive major) (99 hours)

HIST 453, and 454 (8)
 GEOG 121 and 122 (6) or GEOG 230 (5)
 GEOG 452 (4)
 SOC 101, 202, and 231 (12)
 Modern foreign language beyond courses numbered 202 (9)
 HIST 205 and 206, or HIST 437 and 438 (8)
 POLS 201, 301, 371, and 372 (16)
 Specialization in either international law and government or a foreign area (East and South Asia, Latin America, Middle East, North America, Soviet Union, Sub-Saharan Africa, Western Europe, or other approved area) (21-22)
 ECON 202, 203, and 351 (12)

Other programs

A program in international studies also is offered by the College of Arts and Sciences.

Italian

314 or 365 Education Building, 372-0151

Minor (meets high school certification and validation of elementary certificate) (33-35 hours)

ITAL 351, 352, 361, 362, 371, and 372 (18)
 EDCI 373 and 383 (8)
 ITAL electives beyond ITAL 202 (7)

Other programs

A program in Italian also is offered by the College of Arts and Sciences.

Journalism

104 University Hall, 372-2076

Major (meets high school certification in journalism) (42 hours)

First and second years
 JOUR 103 and 105 (8)

Third and fourth years
 JOUR 300 and 414 (8)
 JOUR electives (22)
 JOUR 304, 311, 312, 330, 331, 380, 403, or 404 (4)

Minor (meets high school certification in journalism) (33 hours)

JOUR 103, 105, 300, and 414 (16)
 JOUR electives (6)
 EDCI 370 and 378 (7)
 JOUR 304, 311, 312, 330, 331, 380, 403, or 404 (4)

Other programs

Other programs in journalism are offered through the School of Journalism in the College of Business Administration.

Languages

314 or 365 Education Building, 372-0151

Elementary education majors may have certificates validated for French, German, Italian, Russian, or Spanish if they complete a secondary minor in one of these areas. See specific languages for further information.

Latin

314 or 365 Education Building, 372-0151

Major (meets high school certification) (32 hours)

Courses in LAT beyond 202 (32) (up to eight hours may be chosen from LAT 480, 481, 485, and 486)

Minor (meets high school certification) (28 hours)

Courses in LAT beyond 202 (20)
 EDCI 373 and 383 (8)

Other programs

Programs in Latin also are offered by the College of Arts and Sciences.

Latin American Studies

442 Education Building, 372-0151

Major (meets high school certification in social studies providing the student fulfills the requirements outlined under social studies comprehensive major) (94 hours)

HIST 151, 152, 205, 206, 309, 310, 411, and 412 (36)
 POLS 355 and 456 (8)
 ECON 200 or 202 (4)
 SPAN 201 and 202 (8)
 SPAN 368, 377, 378, 431, 432, 481, 485, 488, and/or 492 (12)
 GEOG 121, 122, 348, and 349 (14)
 POLS 101, 201, and/or 302 (8)
 POLS elective (4)
 LAS 401 (4)
 SOC 101, 231, and 334 (12)
 Social science electives (8)

Other programs

Programs in Latin American studies also are offered by the College of Arts and Sciences.

Learning Disabilities and/or Behavioral Disorders

451 Education Building, 372-0151

Major (meets special kindergarten-twelfth grade exceptional children certification IF another certifiable major is completed.)

First year (45-46 hours)

ART 101 (3)
 ENG 112 (4)
 PEG 100 (3)
 HIST 151 or 152 (4)
 PSYC 201 (5)
 EDCI 202 or EDFI 202 (3)
 BIOL 104 (5)
 GEOG 121 and 122 (6)
 HED 110 (3)
 SPCH 102 (4)
 Physical science elective (4)
 Elective (2-4)

Second year (46 hours)

EDFI 302 (4)
 HIST 205 and 206 (8)
 ENG literature (4)
 L&EM 301 (2)
 EDSE 431, 433, and 451 (11)
 MATH 241 and 242 (9)
 Social science elective (4)
 Physical science elective (4)

Third year (49 hours)

ENG 342 (5)
 EDFI 402 or 429 (4)
 EDSE 437, 443, 453, 455 and 458 (19)
 EDCI 355 and 359 (8)
 PEP 433 (4)
 PSYC 303 or 304 (3)
 MUED 249 and 349 (6)

Fourth year (44 hours)

EDFI 408 (4)
 CDIS 423 (4)
 EDCO 381 (15)
 EDAS 409 (4)
 EDSE 442, 456, and 457 (10)
 ART 482 (4)
 HED 346 (3)

Librarian

See Media Specialist, page 81.

Mathematics

365 Education Building, 372-0151

The requirements for the major and minor which are listed below constitute a basic program and students are encouraged to plan a program that includes additional courses. Advice regarding selection of courses and recommended programs of study may be obtained from the Department of Mathematics and Statistics.

Major (meets high school certification) (47 hours)

MATH 131, 231, 232, 233, 332, 339, and 421 (31)
 MATH 347 or 441 (4)
 MATH 402 or 405 (4)
 Two additional MATH courses at 300- or 400-level, excluding MATH 395, 414, 415, 490, 495 (8)

Minor (meets high school certification) (35 hours)

MATH 131, 231, 232, 233, 332, and 339 (27)
MATH 402 or 405 (4)
One additional MATH course at 300- or 400-level, excluding MATH 395, 414, 415, 490, 495 (4)

Minor (elementary education majors only—does not lead to validation or certification) (30-36 hours)

MATH 241 and 242 (9) or MATH 243 (5)
MATH 115 or 247 (4-5)
EDCI 423 (4)
CS 100 or 101 (4-5)
MATH 414 and 415 (8)
MATH 124 or 131 (5)

Other programs

Programs in mathematics also are offered by the College of Arts and Sciences.

Media Specialist/Librarian

216 Hayes Hall, 372-2461

Major (meets special certification, kindergarten-twelfth grade in educational media) (45 hours)

L&EM 203, 403, 407, 408, 411, 428, 430, and 450 (34)
ENG 342 (5)
L&EM 404, 405, 431, 433, 434, 435, 438, 441, and/or 490 (6)

Minor (meets high school certification in educational media) (30 hours)

L&EM 203, 403, 407, 408, 428, 430, and 450

Minor (elementary education majors only) (35 hours)

L&EM 203, 403, 407, 408, 428, 430, and 450 (30)
ENG 342 (5)

Other programs

A program in library and educational media also is offered through the College of Arts and Sciences.

Moderately, Severely, and Profoundly Handicapped Children

451 Education Building, 372-0151

Major (meets special exceptional children certification, kindergarten-twelfth grade)

First year (46 hours)
ART 101 (3)
ENG 112 (4)
PEG 100 (3)
HIST 151 or 152 (4)
PSYC 201 (5)
EDCI 202 or EDFI 202 (3)
BIOL 104 (5)
GEOG 121 and 122 (6)
HED 110 (2)
SPCH 102 (4)
Physical science elective (4)
Elective (3-4)

Second year (49 hours)
HIST 205 and 206 (8)
EDFI 302 and 342 (8)
MATH 241 and 242 (9)
L&EM 301 (2)
EDSE 431, 433, and 451 (11)
PSYC 303 or 304 (3)
ENG literature (4)
Physical science elective (4)

Third year (46 hours)

ART 482 (4)
ENG 342 (5)
PEP 433 (4)
CDIS 423 (4)
EDSE 437, 440, 443, and 470 (13)
MUED 249 and 349 (6)
EDFI 402 or 429 (4)
Social science elective (4)
Elective (2)

Fourth year (42 hours)

EDFI 408 (4)
EDAS 409 (4)
EDCO 381 (15)
EDCI 355 (3)
EDSE 442, 445, 456, and 457 (13)
HED 346 (3)

Music

1031 Musical Arts Building, 372-2181

Major

See College of Musical Arts, page 109.

All prospective music minors must complete the Music Placement Examination before enrolling in any of the MUCH courses.

Minor—secondary instrumental (meets high school certification) (46 hours)

MUCH 132, 232, 332, and 333 (16)
MUCH 141, 142, 143, 241, 242, and 243 (6)
MUED 150, 151, 152, or 154 (1)
MUSP major instrument (5)
MUCH 130 or 231 (4)
MUSP 305 and 306 (4)
MUED 355 and 457 (7)
MUSP large ensembles (3)

Minor—secondary vocal (meets high school certification) (45 hours)

MUCH 301, 332, and 333 (11)
MUCH 141, 142, 143, 241, 242, and 243 (6)
MUED 150, 151, 152, or 154 (1)
MUSP class or studio voice (6)
MUCH 132, 231, or 232 (4)
MUSP 305 and 306 (4)
MUED 355 and 456 (6)
MUCH 130 (4)
MUSP large ensembles (3)

Minor (elementary education majors only) (45-48 hours)

MUCH 125, 130, 132, 232, 332, and 333 (24)
MUED 255 and 355 (7)
MUCH 141, 142, 143, 241, 242, and 243 (6)
MUSP 305 (2)
MUSP voice (2)
MUED 257 and 258 (2) or MUED 259 (1)
MUED 150, 151, and 152 (3) or MUED 154 (1)
MUSP large ensembles (2)

Other programs

Programs in music also are offered by the College of Musical Arts and the College of Arts and Sciences.

OWE/OWA Work Experience Certification

See work experience, page 83.

Philosophy

365 Education Building, 372-0151

Minor (does not lead to teacher certification) (36 hours)

PHIL 100, 103, and 490 (12)
EDFI 408 (4)
PHIL 245, 318, 325, 327, 332, 342, 402, or 425 (4)
PHIL 102, 204, or 207 (4)
PHIL 310, 311, 312, or 313 (4)
Two courses related to the student's major (8)

The following three endorsements lead to a strong background in philosophy, but do not lead to teacher certification:

Endorsement—teaching courses in philosophy (20 hours)

PHIL 100, 103, and 490 (12)
EDFI 408 (4)
PHIL 102, 204, or 207 (4)

Endorsement—value theory (20 hours)

PHIL 100 and 103 (8)
PHIL 102, 204, or 207 (4)
EDFI 408 (4)
PHIL 245, 318, 325, 327, 332, 342, 402, or 425 (4)

Endorsement—philosophy as a supplement to major (20 hours)

PHIL 100 and 103 (8)
EDFI 408 (4)
Two PHIL electives related to the student's major (8)

Other programs

Programs in philosophy also are offered through the College of Arts and Sciences.

Physical Education

See School of Health, Physical Education, and Recreation, page 87.

Physics

529 Education Building, 372-0151

Major (meets high school certification for physics) (40 hours)

CHEM 121 or 131 (5)
PHYS 131, 232, and 233 (15); or PHYS 214, 215, and 216 (15)
CHEM 122 or 132 (5)
PHYS 313 and 334 (8)
PHYS electives at 300- and 400-level (7)

Minor (meets high school certification for physics) (31-32 hours)

PHYS 131, 232, 233, and PHYS electives at 300- or 400-level (18); or PHYS 214, 215, 216, and PHYS electives at 300- or 400-level (19)
CHEM 121 or 131 (5)
PHYS 313 and 334 (8)

Other programs

Programs in physics also are offered through the College of Arts and Sciences.

Political Science

442 Education Building, 372-0151

Major (meets high school certification) (44 hours)

POLS 201 and 302 (8)
Electives in POLS at 300- or 400-level including at least one course from each of the following groups: POLS 301, 351, 352, 354, 355, 361, 366, 368, 402, 403, 423, 453, 454, 456, 460, or 477; POLS 416, 417, 418, or 419; POLS 332, 421, 422 or 430; POLS 371, 372, 374,

436, 471, 473, 474, 475, or 477; POLS 335, 341, 432, 434, 440, 442, 443, or 444; POLS 331, 345, 346, 347, 421, or 422 (36)

Minor (meets high school certification) (30 hours)

POLS 201 and 302 (8)
Electives in POLS at 300- or 400-level including at least one course from each of the following groups: POLS 301, 351, 352, 354, 355, 361, 366, 368, 402, 403, 423, 453, 454, 456, 460, or 477; POLS 416, 417, 418, or 419; POLS 332, 421, 422, or 430; POLS 371, 372, 374, 436, 471, 473, 474, 475, or 477; POLS 335, 341, 432, 434, 440, 442, 443, or 444; POLS 331, 345, 346, 347, 421, or 422 (22)

Other programs

Programs in political science also are offered by the College of Arts and Sciences.

Psychology

365 Education Building, 372-0151

Major (meets high school certification in social psychology) (54 hours)

First year
PSYC 201 (5)

Second year
PSYC 270, 271, and 290 (12)
PHIL 101, 102, 204, or 230 (4)

Third year
PSYC 301, 320, 321, 322, 323, 328, 330, 331, and/or 340 (8)
PSYC 303 or 304 (3)
PSYC 311 and 312 (6)

Appropriate methods course
Fourth year
PSYC 403, 405, and 460 (13)
PSYC elective at 400-level

Minor (meets high school certification in social psychology) (47-48 hours)

First year
PSYC 201 (5)

Second year
PSYC 270, 271, and 290 (12)
PHIL 101, 102, 204, or 230 (4)

Third year
PSYC 301, 320, 321, 322, 323, 328, 330, 331, or 340 (4)

Appropriate methods courses (7)
PSYC 511 (3)
PSYC 303, 304, 305, or 403 (3-4)

Fourth year
PSYC 405 and 460 (9)

Other programs

Programs in psychology also are offered by the College of Arts and Sciences.

Recreation

See School of Health, Physical Education, and Recreation, page 88.

Restaurant Management

See Department of Home Economics, page 85.

Russian

314-865 Education Building, 372-0151

Major (meets special certification, kindergarten-twelfth grade) (33 hours)

RUSN 317, 318, 319, and 433 (13)
Electives beyond RUSN 202 (18)

Minor (meets high school certification and validation of elementary certificate) (31 hours)

RUSN 317 and 318 (6)
EDCI 373 and 383 (8)
RUSN electives beyond 202 (19)

Other programs

Programs in Russian also are offered by the College of Arts and Sciences.

Science Comprehensive

529 Education Building, 372-0151

Major (meets high school certification for teaching all science subjects) (90 hours)

First and second years
GEOL 103, 104, 105, and 210 (16)
BIOL 201 and 202 (10)
PHYS 214, 215, and 216 (15); or PHYS 131, 232, 233, and 334 (20)
GEOG 125 and 213 (8)
CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

Third and fourth years
GEOL 304, 306, 418, and/or 421 (8-10)
Electives in BIOL, CHEM or PHYS (11-18)

Minor (meets high school certification for general science) (48-53 hours)

BIOL 201 and 202 (10)
CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)
PHYS 214, 215, and 216 (15); or PHYS 131, 232, 233, and 334 (20)
GEOL 103 and 104 (8)

Social Studies

442 Education Building, 372-0151

Major (meets high school certification in social studies) (90 hours)

SOC 101, 202, and 231 (12)
POLS 101 or 201 (4) and POLS 302 (4)
ECON electives (8)
GEOG 121 and 122 (6)
HIST 151, 152, 205, 206, and/or 280 (8)
HIST elective at 300-400 level (4)
Electives in endorsement (44)

Students must consult an assigned social studies adviser and follow the check sheet given them. The check sheet indicates the courses appropriate for first and second endorsements in history, political science, geography, economics, and sociology. Upon graduation a student is certified to teach any endorsements completed.

Sociology

365 Education Building, 372-0151

Minor (meets high school certification) (30 hours)

SOC 101 (4)
HOEC 105 or 302, and/or SOC 361, HOEC 107, 320, 321, 405, 406, 407, and/or 408 (8-10)
SOC 202, 316, 341, 412, 413, 418, 419, 441, and/or 442 (8-10)
SOC 231, 301, 302, 303, 311, 315, 317, 331, 334, 352, 369, 370, 371, 413, 415, 416, and/or 432 (8-10)

Other programs

Programs in sociology also are offered by the College of Arts and Sciences.

Spanish

314 or 365 Education Building, 372-0151

Major (meets special certification, kindergarten-twelfth grade) (36 hours beyond 202 plus EDCI 373 and 383)

SPAN 351, 352, 367, 368, 371, 377, and 378 (24)
EDCI 373 and 383 (8)
SPAN electives at 300- or 400-level (minimum of five courses)

Minor (meets high school certification and validation of elementary certificate) (25 hours beyond 202 plus EDCI 373 and 383)

SPAN 351, 352, 367, 368, 371 and 377 or 378 (21)
EDCI 373 and 383 (8)
SPAN electives at 300- or 400-level (4)

Other programs

Programs in Spanish also are offered by the College of Arts and Sciences.

Special Education

See communication disorders; hearing impaired children; educable mentally retarded; learning disabilities and/or behavior disorders; and moderately, severely, and profoundly retarded. Also see adapted physical education in the School of Health, Physical Education, and Recreation.

Speech Communication

365 Education Building, 372-0151

Major (meets high school certification) (62-63 hours)

SPCH 102 and 351 (8)
IPCO 204 or 205 (4)
CDIS 223 (4)
IPCO 305 (4)
IPCO 203 or 306 (4)
THEA 243, 347, or 348 (3-4)
IPCO 303 or 307 (4)
THEA 145, 202, 241, and 341 (15)
RTVF 260 and 263 (8)
Electives in IPCO, RTVF, and THEA (one course in each area suggested; courses to be chosen in consultation with adviser) (8)

Minor (meets high school certification) (53-54 hours)

SPCH 102 (4)
RTVF 260 and 263 (8)
THEA 141 or 145 (4)
IPCO 203 or 306 (4)
THEA 243, 347, or 348 (3-4)
EDCI 370 and 372 (7)
IPCO 204 or 205 (4)
RTVF 262, IPCO 303, THEA 340, CDIS 266, or SPCH 351 (4)
THEA 202, 241, and 341 (11)
CDIS 423 (4)

Other programs

Programs in speech communication also are offered through the College of Arts and Sciences and its School of Speech Communication.

Speech and Hearing Therapy

327 South Hall, 372-2223

Major (meets special kindergarten-twelfth grade exceptional children certification in speech and hearing therapy)

First year (47 hours)

BIOL 101 or 104 (5)

SOC 231 (4)

PEG 100 (3)

PSYC 201 (5)

ENG 112 (4)

SPCH 102 (4)

CDIS 223 and 226 (8)

EDCI 202 or EDFI 202 (3)

PHYS 100, PHYS 350, or MATH 121 (4-5)

General Education (7)

Second year (48 hours)

EDFI 302 (4)

PSYC 270 and 305 (7)

IPCO 203 or 306 (4)

CDIS 324, 331, 333, and 422 (16)

EDCI 355 (3)

ENG 342 and 380 (10)

General Education (4)

Third year (47-48 hours)

EDSE 431 or 311 (3-4)

EDFI 402 and 408 (8)

PSYC 303 or 304 (3)

L&EM 301 (3)

CDIS 325, 328, 330, 391, 426, and 434 (27)

EDAS 409 (4)

Fourth year (43 hours)

THEA 340 (4)

EDCO 331 (15)

EDSE 451 (4)

CDIS 332, 433, 435, and 427 (15)

PSYC 405 (5)

Work Experience

365 Education Building, 372-0151

Certification pattern (meets certification in Occupational Work Experience and Occupational Work Adjustment programs).

Open to majors or minors in business education, distributive education, educable mentally retarded, home economics, and industrial education. See appropriate adviser.

Required methods sequence in major

Partial student teaching in the work experience area

One course in developmental reading by advisement

EDFI 412

BUSE 370, 462, and 470

Equivalent of one year of gainful employment in business or industry

Department of Home Economics

206 Johnston Hall, 372-2026

As an interdisciplinary field of study, home economics is concerned with the relationship of the laws, conditions, principles and ideals which deal with man's immediate physical environment and with his nature as a social being. Degrees in home economics are offered through the colleges of education, arts and sciences, and health and community services. The department provides students with the opportunity to major or minor in foods and nutrition; home economics education; human development and family studies; resource management and consumer science; and textiles, clothing, and interior design. There are 12 undergraduate majors, which are identified below by college and degree.

Individuals completing degree requirements within home economics must meet the general education requirements specified by the college in which the program is housed. Advisers are available within the department to meet with students to discuss admission standards, degree requirements, and employment opportunities related to each of the major programs.

College of Education

Bachelor of Science in Education

Teacher Certification Programs
(See introduction to College of Education for general education requirements)

Early Childhood Education*

206 Johnston Hall, 372-2026

Major curriculum (meets elementary certification, kindergarten-eighth grade)

This program also prepares students to work with infant, toddler, and preschool programs, public and private day care centers, as well as other agencies serving children.

First year (49 hours)

ART 101 (3)
ENG 112 (4)
PEG 100 (3)
HIST 151 or 152 (4)
HOEC 120 and 123 (7)
EDCI 202 or EDFI 202 (3)
BIOL 101 or 104 (5)
GEOG 121 and 122 (6)
HED 110 (2)
SPCH 102 (4)
Physical science (8)

Second year (44-48 hours)

HIST 205 and 206 (8)
PSYC 201 (5)
HOEC 207 and 223 (6)
HED 313 and 346 (7)
L&EM 301 (2)
MATH 241 and 242 (9) or MATH 243 (5)
SOC 101 (4)
EDCI 221 (3)
ENG literature (4)

Third year (30-61 hours)

EDFI 302 and 342; EDCI 351, 352, 353, 355, 356 and 357; EDCI 420 or 359; and EDCI 423 (35-36) meets certification for kindergarten through eighth grades; or PSYC 303 and 304 (6) or HOEC 320 and 321 (6)

ART 343 or IE 316 (3-4)
PEP 342 (4)
EDCI 321 (3)
ENG 342 (5)
MUED 249 and 349 (6)
HOEC 224 (3)

Fourth year (52-53 hours)

HOEC 421 and 423 (6)
EDSE 421 (4)
EDCO 381 (15)
EDAS 409 (4)
CDIS 423 (4)
SOC 316 and 361 (8)
PSYC 321 or 322 or HOEC 422 (3-4)
EDFI 408 and 402 (8)

Minor (does not lead to teacher certification) (39-40 hours)

HOEC 123, 223, 224, 320, 421, 422, and 423 (22)
EDSE 421 (4)
EDCI 221 and 321 (6)
HOEC 321 or EDFI 342 or PSYC 303 (3-4)
EDFI 429 (may be waived if EDFI 402 required in major program) (4)

Family Life Education

206 Johnston Hall, 372-2026

Certification pattern (high school comprehensive) (90 hours)

This program is designed to be compatible with and build upon majors in home economics education, child and family development, and health education. Consult with program advisers.

HED 109, 110, 313, 338, and 409 (16)
HOEC 105, 120, 205, 302, 320, and 407 (23)
HOEC 103, 303, or 406 or TECH 313 (4)
BUSE 240 or HOEC 405 (4-5)
PSYC 201 and 303 (8)
BIOL 104 and 331 (10)
RED 205 (4)
HOEC 107 or 408 (4)
ECON 200 (4)
HOEC 207 or 307 (4-5)
PSYC 311 or SOC 301 (3-4)
SOC 101 (4)

Home Economics Education

206 Johnston Hall, 372-2026

Major curriculum—homemaking and consumer education.

The program options in home economics education are designed to prepare those who wish to teach home economics from junior high school through adult education. The curricula are designed to meet the educational requirements necessary for one or more of the certification options available in vocational homemaking and consumer education, child care services job training, community and home services job training, fabric services job training, food services job training, multi-area job training, occupational work adjustment/occupational work experience, general home economics, and family life education.

First year (47 hours)

CHEM 111, 112, and 213 (12)
ENG 112 (4)
HOEC 100, 101, 103, and 105 (14)
EDCI 202 or EDFI 202 (3)
SPCH 102 (4)
PEG 100 (3)
ART 101 (3)

Second year (45 hours)

HOEC 202, 205, 210, 212, 250, 303, and 307 (30)
PSYC 201 (5)
ENG literature (4)
EDFI 302 (4)
L&EM 301 (2)

*The early childhood education option is an interdepartmental program involving home economics, educational curriculum and instruction, educational foundations and inquiry, and special education.

Third year(43-48 hours)

- HOEC 206, 311, 320, 321, 322, 352, and 353 (26)
- ECON 200 or 201 (4)
- Science or MATH (2-4)
- EDCI 360 (3)
- EDSE 311 (3)
- Social science (1-4)
- Elective (4)

Fourth year (48 hours)

- HOEC 302, 354, 405, and 406 (17)
- EDFI 402 (4)
- EDCO 331 (15)
- EDAS 409 (4)
- EDFI 408 (4)
- Elective (4)

A home economics education major with the preceding program may prepare for an additional certificate to teach job training in secondary vocational programs by completing the following additional course work.

Child care services—job training (30 hours)

- HOEC 289 (2)*
- ENG 342 (5)
- ACCT 325 (4)
- PEP 342 (4)
- HOEC 120, 324, 421, 422, and 423 (15)

Community and home services—job training (26 hours)

- HOEC 289 (2)*
- HED 109 (3)
- MGMT 305 (4)
- HOEC 331 and 333 (8)
- NURS 200 (4)
- BIOL 313 (5)

Fabric services—job training (30 hours)

- HOEC 289 (2)*
- HOEC 312, 313, 404, 412, 414, and 417 (21)
- ART 103 (3)
- ACCT 325 (4)

Food services—job training (28 hours)

- HOEC 289 (2)*
- HOEC 331, 333, and 431 (12)
- DESN 301 (5)
- MGMT 305 or ACCT 325 (4)
- BIOL 313 (5)

Multi-area—job training (2 hours)

- HOEC 289 (2)*

Minor(meets high school certification) (58 hours)

- HOEC 101, 103, 105, 202, 205, 207, 210, 212, 250, 302, 303, 320, 321, 352, and 405

Minor (non-certifiable) (35 hours)

- HOEC 103, 105, 205, 207, 303, 320, 324, and 325 (30)
- Electives (5)

Bachelor of Science in Education

Other Professional Options

Child and Family Development

206 Johnston Hall, 372-2026

The emphases of the program are on human development, social relationships,

and the family life cycle. Practical experience in the nursery school and other community facilities provides opportunities for supervised observation and experience with the various aspects of human development.

Careers in these fields are: teaching in nursery schools or day care centers; working in government Headstart programs and community social services; working with youth groups, retirement homes, nursing homes, and vocations in which a knowledge of human relationships is required. This program may be combined with family life education or job training in child care services for teacher certification. A foundation is provided for graduate study and for professional careers in which additional work is required, such as child and family counseling, and the administering of programs for families and children. For suggested courses, follow the outline below:

Major

First year (45 hours)

- ART 101 (3)
- ENG 112 (4)
- PEG 100 (3)
- SPCH 102 (4)
- BIOL 104 (5)
- HOEC 105, 120, and 224 (10)
- SOC 101 (4)
- Science and MATH electives (9)
- Other electives (3)

Second year (46-47 hours)

- ENG 342 (5)
- TECH 313 (4)
- HOEC 205, 207, 320, 321, and 325 (18)
- PSYC 201 (5)
- General education IV elective (2-3)
- Social science elective (5)
- Other electives (8)

Third year (46 hours)

- EDFI 302 and 402 (8)
- HOEC 107 or 408 (4)
- THEA 340 (4)
- HOEC 302, 322, and 435 (10)
- HOEC 387 (2-6)
- HED 313 (4)
- Electives (14)

Fourth year (46 hours)

- EDFI 408 (4)
- HOEC 407, 421, 422, 423, and 489 (19-24)
- Electives (18-23)

Child care services (41 hours)

A child and family development major can prepare for a job training certificate in child care services by completing the following course work:

- HOEC 250, 352, and 353 (12)
- EDSE 431 (4)
- ACCT 325 (4)
- EDCO 331 (15)
- PEP 342 (4)
- HOEC 289 (2)

Minor (50 hours)

- HOEC 105, 120, 205, 207, 302, 320, 321, 322, 387, 421, and 423 (37)
- ENG 342 (5)
- THEA 340 (4)
- TECH 313 (4)

Bachelor of Science in Technology

The Department of Home Economics offers two programs which lead to the Bachelor of Science in Technology degree. For information on other programs leading to the Bachelor of Science in Technology, see School of Technology. Also see page 7 for degree requirements.

Dietetics

206 Johnston Hall, 372-2026

A student who completes the course work below will qualify for an internship or pre-planned work experience in an institution approved by the American Dietetic Association. Upon completion of this post-graduate training and passing an examination, the student will be eligible for membership in that professional association and for national registration.

First year (45 hours)

- BIOL 201 (5)
- ENG 112 (4)
- MATH 124 (5)
- SOC 101 (4)
- CHEM 121, 122, and 123 (15)
- HOEC 210 (5)
- PEG 100 (3)
- SPCH 102 (4)

Second year (50 hours)

- BIOL 313 (5)
- ECON 200 (4)
- HOEC 212, 307, and 327 (13)
- PSYC 201 (5)
- CHEM 306, 308, and 309 (11)
- EDFI 302 (4)
- ENG literature (4)
- ACCT 325 (4)

Third year(45 hours)

- BIOL 411 (5)
- HOEC 331, 333, 405, and 432 (17)
- MGMT 360 and 361 (8)
- DESN 301 (5)
- Electives (HOEC 389 recommended) (10)

Fourth year (44 hours)

- HOEC 431, 433, 434, 435, and 480 (20)
- MIS 475 (4)
- HOEC 489 (5-10) (repeatable)
- Electives (10-15)

A dietetics program also is offered in the College of Health and Community Services.

Restaurant Management —Institutional Food Service

206 Johnston Hall, 372-2026

Students who complete this program are qualified to work in food production, sales, and service in institutions or restaurants at the management level. The flexibility of this program permits students to strengthen existing competencies in food science and food production management. Industrial experience is gained through supervised field experiences in a job related to the student's goals.

*One year of acceptable on-the-job experience may be substituted. See an adviser.

First year (46 hours)

BIOL 201 (5)
 CHEM 111, 112, and 213 (12)
 HOEC 210 (5)
 MATH 124 (5)
 SOC 101 (4)
 SPCH 102 (4)
 BA 102 (4)
 ENG 112 (4)
 PEG 100 (3)

Second year (45 hours)

ECON 200 (4)
 DESN 301 (5)
 Child and family elective (3)
 ENG literature (4)
 HOEC 212 and 326 (11)
 PSYC 201 (5)
 CS, OPRE, or MIS electives (4-5)
 Other electives (9-10)

Third year (46 hours)

ACCT 325 and 337 (8); or ACCT 221 and 222 (8)
 HOEC 307, 331, and 333 (13)
 MGMT 360 and 361 (8)
 BA 303 (4)
 SPCH 306 (4)
 Electives (9)

Fourth year (46 hours)

BIOL 313 (5)
 HOEC 431, 433, and 480 (12)
 BIOL 332 or 411 (5)
 Electives (24)

Suggested electives (hours included above)

HOEC 389 and 489
 HOEC 205 and 206

Home Economics Programs in Other Colleges

College of Arts and Sciences

Bachelor of Arts degree.

Five programs in home economics are available through the College of Arts and Sciences. These are: planned professional programs in fashion merchandising and interior design; major programs in food science and nutrition, and textiles and clothing; and a general home economics major with a concentration in foods and nutrition or textiles and clothing. No minor is required for the two planned professional programs. Fashion merchandising students may choose the option to study at the Fashion Institute of Technology, New York, for a year during the junior or senior year. Programs must be planned with the adviser no later than the second year. After the second year students may participate in a supervised field experience during the summer or academic year. The following programs are available.

Fashion Merchandising

206 Home Economics Building, 372-2026

This is a planned program designed to prepare students for careers in business and industry. These may include executive management positions; retail or wholesale merchandising; educational and/or sales representative for fabric, apparel, and accessory firms. No minor is required. See page 39.

Food Science and Nutrition

206 Johnston Hall, 372-2026

A major program designed for the student who wishes to specialize in the food science field preparatory to graduate study or a career in business or industry. A minor is required. See page 40.

Home Economics General

206 Johnston Hall, 372-2026

A major program designed for the student who desires a general home economics background with a concentration in foods and nutrition, textiles and clothing, or plans to continue in graduate school. A minor is required. See page 40.

Interior Design

209 Home Economics Building, 372-2026

The interior design program trains students in the planning and executing of residential and contract interiors. Course work is designed to help students evaluate problems and devise solutions for them. Students who complete the approved four-year program are eligible to apply for membership in the American Society of Interior Designers (ASID). See page 40.

Textiles and Clothing

101 Home Economics Building, 372-2026

A major program designed for the student who wishes to specialize in the textiles and clothing field preparatory to graduate study or for a career in business and industry. A minor is required. See page 40.

College of Health and Community Services

Child and Family Community Services

206 Johnston Hall, 372-2026

This is a multidisciplinary program for students who wish to concentrate in either children's services or family services. Specific courses of study are available for students who wish to pursue careers working with entire families, adolescents, infants and children or other specific groups of individuals. Career options in this program include: teaching and administration within preschools and infant centers, performing services within a variety of human service agencies including hospital based developmental programs. See page 99 for details.

Dietetics

206 Johnston Hall, 372-2026

A professional program leading to membership and registration in the American Dietetic Association is offered through the College of Health and Community Services. See page 100.

School of Health, Physical Education, and Recreation

Betty van der Smissen, Director, 200 Memorial Hall, 372-2876

The School of Health, Physical Education, and Recreation is organized into the divisions of general physical education and intramurals (PEG), health education (HED), physical education-professional (PEP), recreation and dance (RED), and sports studies and management (SSM).

Individuals completing requirements in program areas within the school are prepared to begin careers as teachers of physical education, health education, driver education, or as athletic coaches and athletic trainers.

Concentrations in recreation or sports studies programs are designed to prepare students for management, supervisory, and leadership positions in a variety of park, recreational, and commercial programs.

In addition, the School of Health, Physical Education, and Recreation provides opportunities for active participation in a broad spectrum of instructional physical education offerings and participation in intramural and club sports.

Students seeking enrollment in any of the program offerings of the school are advised to consult a specific program area adviser for current program admission standards, retention procedures, and course enrollments.

General Physical Education and Intramurals

PEG 100—General physical education. Each freshman must fulfill the University requirement of three units in activities that include archery, curling, dance, racquetball, skiing, swimming, ice skating, diving, and weight training. Most activities are co-educational, graded S/U, and meet two hours per week.

PEG 200—General physical education. Elective program in diverse activities, open to any student who has completed the University requirement of three hours of PEG 100. Two hours per week.

Organized intramural and club sport competition is available through participation in:

1. coed activities—indoor, outdoor;
2. recreational sports for men;
3. recreational sports for women;
4. club sports units—17 clubs plus performance groups in aquatics and dance.

Bachelor of Science in Education

All programs in the School of Health, Physical Education, and Recreation lead to the Bachelor of Science in Education degree.

Driver Education

Certification pattern (9 hours)
HED 362 and HED 462 (9)

Health Education

204 Eppler North, 372-2525

Major (meets special certification, kindergarten-twelfth grade) (45-51 hours)

HED 110, 209, 313, 338, and 340 (19)
PSYC 201 (5)
SOC 101 (4)
BIOL 331 and 332 (10)
HOEC 207 (4)
HED 113, 314, 480; PEP 360, 443; HOEC 105, 302; PSYC 305; PHIL 319; BIOL 313; ENVH 401, 402, 403, and/or 404 (select two)

Minor (meets high school certification) (38 hours)

HED 110, 209, 313, 338, 348, 349, and 409 (24)
Nine hours from: HED 113, 230, 314, 340, 480, 481; PEP 360, 443; HOEC 105, 207, 302; PSYC 305; PHIL 319; BIOL 313; ENVH 401, 402, 403, and/or 404
BIOL 332 (5)

Physical Education

Major—Plan I, elementary concentration (meets special certification, kindergarten-twelfth grade) (67-69 hours)

First year (45 hours)
PEP 137, 138, and 164 (7)
ENG 112 (4)
BIOL 104 (5)
PSYC 202 (5)
ENG literature (4)
Group III electives (8)
Group IV electives (8)
PEP activities (4)

Second year (45 hours)
PEP 233, 237, 238, 302, and 303 (16)

HED 313 (4)
SPCH 102 (4)
BIOL 332 (5)
EDFI 302 (4)
Group III electives (3)
PEP activities (7)
Electives (2)

Third year (47 hours)
PEP 241, 332, 340, 350, 387, 402, 428, and 433 (30)

HED 409 (4)
L&EM 301 or VCT 203 (2-4)
Group electives (6)
PEP activities (3)
Electives (2-3)

Fourth year (46 hours)
PEP 348 and 487 (11)
EDFI 408 (4)
EDAS 409 (4)
EDCO 331 (15)
Electives (12)

Students must complete a minimum of 14 credit hours in PEP, RED, or SSM activity courses. These courses must be selected in consultation with an adviser from beginning, intermediate, and advanced courses. Students may receive credit for these courses through examinations in which they demonstrate appropriate skills.

Students are encouraged to enroll in the elementary school physical education concentration as freshmen. However, to be admitted officially to the program, the student must:

1. complete the equivalent of approximately 90 credit hours and complete the group requirements of the College of Education with an accumulative grade point average of 2.3;
2. complete 20 credit hours of PEP, RED, or HED courses with a 2.5 grade point average;
3. complete PEP 137, 138, 237, 238, and 241 with a 3.0 grade point average;
4. complete PEP 333 with a "B" or better;
5. present written recommendations from two faculty members.

In addition, the following traits are deemed essential for those who expect to become teachers:

1. self-direction and motivation for selecting and attaining individual goals;
2. a set of values that reflect a character worthy of working with young children.

Students not meeting prescribed requirements may petition the elementary school physical education committee for

conditional acceptance. The committee will review all credentials of applicants wishing to pursue Plan I with a concentration in elementary school physical education. The committee may grant conditional or unconditional admittance to the elementary school physical education preparation program. In case of unconditional admittance, the candidate will be interviewed and the restrictions on admittance will be explained.

Major—Plan II, secondary concentration (meets special certification, kindergarten-twelfth grade)

A candidate must apply for admission. To be admitted the student must:

1. have successfully completed PEP 137, 138, 164, 247, 254, and 256;
2. have earned a 2.3 University accumulative grade point average;
3. have earned a PEP accumulative grade point average of 2.5, including all PEP courses and other courses completed within the School of HPER which are Plan II program requirements (HED 313 and 409, RED activity courses, SSM 310, and advanced activity courses);
4. have demonstrated attainment of minimal standards in 10 activity competencies and in basic movement patterns;
5. have completed 15 PEP credit hours on the BGSU main campus.

For completion of the physical education Plan II program the student must demonstrate various levels of competency in a minimum of nine *different* activities.

1. *Beginning* level competency in a total of 9 activities including:
 - Gymnastics—PEP 113
 - Dance—RED 106, 111, or 115
 - Track/Field—PEP 120 or tennis; PEP 119 or archery; PEP 122 or badminton; PEP 104
 - Basketball—PEP 102 or volleyball; PEP 121 or soccer; PEP 123
 - 5 activities selected by the student
2. *Intermediate* level competency in a total of 4 of the activities already passed at the beginning level.
3. *Advanced* level competency in at least one activity already passed at the intermediate level.

Successful completion is determined by a competency assessment conducted by the instructor of the course. Competency is determined by an assessment of the skill, knowledge, and understanding and course grade of the student.

If one elects to demonstrate competency at the beginning level without taking a class, an opportunity will be provided in each activity once a year according to a planned schedule.**

First year (46 hours)
 PEP 137, 138, 164, and 256 (10)
 ENG 112 (4)
 BIOL 104 (5)
 Physical education activities (9)**
 Social science electives (7)
 Fine and applied arts electives (3)
 Other electives and minor (8)

Second year (46 hours)
 PEP 241, 247, and 254 (10)
 SPCH 102 (4) and L&EM 301 (2) (to be taken concurrently with PEP 247)
 BIOL 332 (5)
 PSYC 201 (5)
 EDFI 302 (4)
 HED 313 (4)
 ENG literature (4)
 Electives or minor (4)
 Physical education activities (4)**

Third year (44 hours)
 PEP 302, 303, 350, 356, 360, and 372 (25)
 SSM 310 (3)
 HED 409 (4)
 EDFI 408 (4)
 Social science elective (4)
 Physical education activities (4)**

Fourth year (47 hours)
 PEP 402, 412, 433, and 468 (15)
 Advanced activity (2)
 EDCC 331 (15)
 EDAS 409 (4)
 Electives or minor (11)

Major—Plan III, secondary concentration (meets special certification, kindergarten-twelfth grade) (86-87 hours)

PEP 105, 107, 111, 113, 137, 138, 161, 162, 163, 164, 241, 254, 302, 303, 350, 352, 360, 392, and 412; RED 111 (1) (50)
 PEP 110, 122, and/or 170 (2)
 HED 313 and 409 (8)
 SSM 310 (3)
 BIOL 331 and 332 (10)
 PEP 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, and/or 271 (6)
 PEP 433 or EDSE 311 (3-4)
 HED 110 or 209; PEP 443, 461; SSM 328, 329, 330, 368, 369, 410, and/or 431 (2)
 PEP 402 or EDFI 402 (4)

Minor—adapted physical education (does not lead to certification) (39-41 hours) Open to all College of Education students.

A candidate will be interviewed by the area coordinator.

EDSE 431, 433, and 451 (11)
 PEP 137 and 237 (5) or PEP 138 and 238 (5)
 PEP 164, 340, and 433 (11)
 PEP 387a and 487a (6)
 PEP 302, 350, 434, 435, 470; PSYC 324, 405, 406; GERO 470; and/or EDSE 470 (6-8)

Minor—elementary school (Open only to students pursuing a teaching major in education, health education, music education, physical education, or special education who will receive either elementary teaching certification or kindergarten-twelfth grade certification.)

Before enrolling in any of the courses listed below, students should check with the faculty in the elementary school physical education program. Students completing the following sequence of courses may have their elementary or special teaching certificates validated for teaching elementary school physical education.

PEP 137, 138, 233, 237, 238, 241, 332, and 428 (27)
 PEP 164, 302, 303, 340, and/or 350 (3-4)
 PEP 387 (1), 433, 438, and/or 487 (1) (5)
 EDCC 382 (5)

**There is a specific activity sequence required of students enrolled in this major. An outline of this sequence is available from the Plan II committee.

Minor—secondary school (meets high school certification) (38 hours)

PEP 105, 107, 302, 352, and 412 (18)
 BIOL 331 (5)
 SSM 310 (3)
 PEP 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, and/or 271 (3)
 PEP 161, 162, 163, 170, 360, 361, 463; HED 109, 110, 313, 409; SSM 328, 329, 330, 331, 332, 364, 365, 366, 367, 368, 369, 410, and/or 431 (9)

Recreation

Students interested in the major must apply for admission, hold a 2.5 ("C +") accumulative grade point average, and be interviewed by a recreation faculty member and the recreation curriculum committee. Transfer students with more than first-quarter junior standing may be required to complete more than six quarters of full-time work to qualify for the degree. The four recreation options are listed below.

Recreation Administration

The recreation administration program prepares students for management, supervisory, and leadership positions in park and recreation programs operated at the municipal, county, regional, state, federal, private, and industrial levels.

The specialist in recreation administration should be well versed in:

1. personnel management, including hiring and bargaining practices and supervision of personnel;
2. financial management, including budgeting, fund raising, purchasing and inventory control;
3. facility planning and maintenance; and
4. handling all phases of public relations, including the preparation and interpretation of program material for mass media and "live" audiences, and the setting of policy and procedures for an agency and its staff.

First year (45 hours)
 ENG 112 (4)
 SPCH 102 (4)
 PEG 100 (3)
 Science elective (9)
 RED 186 and 205 (7)
 Fine arts elective (3)
 Program area (6)
 Social science elective (4)
 RED 387 (1)
 SOC 101 (4)

Second year (49 hours)
 PSYC 201 (5)
 Communication elective (4)
 Program area (8)
 Social science elective (4)
 L&EM 430 (4)
 ENG literature (4)
 Fine arts elective (3)
 MGMT electives (8)
 RED 487 (1)
 Science elective (5)
 Elective (3)

Third year (46 hours)
 RED 384, 385, and 488 (24)
 PEP 433 (4)
 HED 313 (4)
 Program area (7)

MGMT 305 or 360 (4)
 Elective (3)
Fourth year (43 hours)
 MGMT electives (8)
 Social science elective (4)
 Fine arts elective (3)
 RED 482 and 483 (8)
 Program area (11)
 Electives (9)

Recreation Leadership

The recreation leadership program is designed to prepare students to provide leadership in planning and implementing recreation programs sponsored by schools, communities, and agencies in both urban and rural settings.

The specialist in recreation leadership should:

1. be able to communicate in a variety of media;
2. understand interactions between and among individuals and groups within urban and rural settings;
3. be able to plan, implement, and supervise a variety of recreational activities and programs;
4. understand the needs and abilities of special populations; and
5. be familiar with a variety of program area skills while specializing in at least two of the following areas: performing and fine arts, physical activity, outdoor recreation, aquatics.

First year (45 hours)
 RED 186 and 205 (7)
 Science elective (5)
 PEG 100 (2)
 Program area (7)
 RED 387 (1)
 ENG 112 and communication (8)
 SPCH 102 (4)
 SOC 101 (4)
 Fine arts elective (3)
 Elective (4)

Second year (48 hours)
 HED 313 (4)
 PSYC 201 (5)
 PEG 100 (1)
 RED 387 (1)
 Social science elective (4)
 RED 487 (1)
 Communication electives (8)
 Program area (7)
 BA 303 (4)
 Science elective (5)
 ENG literature (4)
 Elective (4)

Third year (48 hours)
 RED 384, 385, and 488 (24)
 MGMT 305 (4)
 PEP 433 (4)
 L&EM 430 (4)
 Science elective (4)
 Social science electives (8)

Fourth year (42 hours)
 RED 483 (4)
 Fine arts electives (6)
 Program area (6)
 RED 482 (4)
 Social science elective (4)
 MGMT elective (4)
 Communication elective (4)
 Electives (10)

Outdoor Recreation

The outdoor recreation program is designed to prepare students for leadership, supervisory, and management positions in organized camping, outdoor interpretation, park management, outdoor recreation, resource development, and outdoor recreation programming serving a variety of populations in various settings.

The specialist in outdoor recreation should be able to:

1. program and lead a variety of outdoor recreation activities appropriate to the environment and clientele;
2. teach skills related to outdoor pursuits;
3. understand and interpret the outdoor environment; and
4. design and manage man-made and natural outdoor recreation facilities and resources.

First year (47 hours)
 ENG 112 (4)
 SOC 101 (4)
 RED 178, 186, and 205 (10)
 GEOL 103 (4)
 RED 387 (1)
 Communication elective (4)
 Social science elective (4)
 BIOL 101 (5)
 PEG 100 (2)
 GEOG 127 (4)
 SPCH 102 (4)
 Program area (swimming) (1)
Second year (46 hours)
 Science electives (8)
 ENG literature (4)
 RED 273, 294, 373, and 374 (15)
 HED 313 (4)
 RED 487 (1)
 PEG 100 (1)
 PSYC 201 (5)
 Fine arts elective (3)
 Communication elective (4)
 Program area (outdoor activity) (1)

Third year (44 hours)
 RED 384 and 488 (20)
 Fine arts elective (3)
 Program area (outdoor activity) (3)
 Social science elective (4)
 L&EM 430 (4)
 PEP 433 (4)
 Electives (8)

Fourth year (44 hours)
 MGMT 305 or 360 (4)
 RED 385, 482, and 483 (12)
 Social science elective (3)
 Program area (6)
 Fine arts elective (3)
 Science elective (4)
 MGMT elective (4)
 Electives (8)

Recreation Theatre

The recreation theatre program is designed to prepare students to be leaders in planning, organizing, and implementing theatre programs in professional, community, and educational theatre. In addition to the requirements for all recreation majors listed below, the candidate in recreation theatre must apply for admission to, and be accepted by, the recreation theatre program committee.

The specialist in recreation theatre should be able to:

1. communicate in a variety of media; and
2. plan, implement, and supervise a variety of theatre programs in a variety of settings.

First year (46 hours)
 ENG 112 (4)
 PEG 100 (2)
 RED 186 and 205 (7)
 RED 387 (1)
 SOC 101 (4)
 THEA 145, 146, and 241 (12)
 Science electives (9)
 Social science elective (3)
 SPCH 102 (4)

Second year (47 hours)
 ENG literature (4)
 PSYC 201 (5)
 THEA 202, 243, and 340 (12)
 PEG 100 (1)
 Science elective (5)
 Fine arts electives (6)
 L&EM 430 (4)
 Social science elective (3)
 RED 487 (1)
 Electives (6)

Third year (47 hours)
 MGMT 305 or 360 (4)
 RED 384 and 488 (20)
 Fine arts elective (3)
 HED 313 (4)
 PEP 433 (4)
 THEA 341 (4)
 Communication elective (4)
 RED 487 (1)
 Elective (3)

Fourth year (43 hours)
 THEA 342, 343, and 344 (11)
 RED 385, 482, and 483 (12)
 Program area (1)
 MGMT elective (4)
 Communication elective (4)
 Social science elective (4)
 Electives (8)

Sport Studies and Management

In this program, three major options and two minor options are available. Students interested in any of the programs must apply for admission and be interviewed by an adviser.

Major—Option I, fitness and sport director

This program prepares students for leadership in planning and directing a variety of physical activities and sports, and physical fitness programs in the public and private sector. Students are prepared to assume positions in YMCA and YWCA centers, health clubs, racquet clubs, and aquatic centers.

Students are expected to become proficient in:

1. planning, directing, and supervising a variety of physical activities and fitness programs.
2. understanding the needs and abilities of persons of all ages seeking physical activity and fitness programs.
3. communicating with individuals and groups in activity settings.
4. understanding the business and legal aspects of programs in physical activities, physical fitness, and sports.

Major requirements (104-112 hours including 22 hours in physical activities)

SSM 335, 421, 423, 489, and 490 (31)
 SSM 387 (1-8)
 SSM 487 (1-8)
 HED 313 (4)
 PSYC elective (3-5)
 IPCO elective (4)
 PEP 164, 302, 360, or 443 (3-4)
 PEP 412 or RED 384 (4-5)
 RED 186 (3)
 Business electives (12)
 Sociology elective (4)

Major—Option II, sports marketing and promotion information

This program prepares students for sports marketing in the commercial sector, or for careers as sports writers, sports broadcasters, or sports information directors.

Students are expected to become proficient in:

1. understanding the needs of the public in selecting appropriate sports equipment;
 2. salesmanship and sales management and other marketing responsibilities;
- or
3. understanding the role of sports in the mass media;
 4. communicating in a variety of media fields, with a specialization in one field;
- and
5. applying professional techniques in sports communication.

Major requirements (108-115 hours including 18 hours in physical activities)

SSM 328, 421, 425, 489, and 490 (32)
 PEP 412 or RED 384 (4-5)
 MKT electives (12)
 SSM 387 (1-8)
 SSM 487 (1-8)
 JOUR 103, 105, and 300 (12) plus 20 hours of JOUR electives
 RTVF elective (4)

Major—Option III, sport administration
 This program prepares students for leadership, supervision, and management in a variety of private or commercial physical activity, physical fitness, or sports organizations.

Students are expected to become proficient in:

1. hiring and supervising personnel and setting policies and procedures;
2. budgeting, fund raising, purchasing, and inventory control;
3. maintaining fitness, activity, and sports facilities;
4. providing programs appropriate to the clientele of the organization; and
5. interpreting the program and its needs through the mass media.

Major requirements (106-112 hours including 18 hours in physical activities)

SSM 328, 421, 429, 489, and 490 (32)
 SSM 387 (1-8)
 SSM 487 (1-8)
 PEP 412 or RED 384 (4-5)
 Electives in BUSE, ECON, LEGS, MGMT, or MKT (16)
 AGCT 325 (4)
 FIN 300 (4)
 MGMT 305 (4)
 MKT 300 (4)
 SOC 317, 352, 404, and 417 (16)

Minor—Athletic Coaching (leads to Ohio Endorsement Certificate) (38-53 hours)

SSM 310, 328 and 391 (11)
 PEP 412 (4)
 Two from: SSM 306, 307, 364, 365, 366, 367, 368, 369 (2-4)
 PEP 113, 213, 305, 107, 207, 304, 117, 217, 317, 109, 209, 309, 118, 218, 318, 104, 204, 303, 261, 264, 265, 267, 270, and/or SSM 331 (3)
 PEP 164, 302, 350, 360, 425, 443, 461, HED 313, SOC 417, and/or SSM 329, 330, 331, 332, 391 (3-8)
 BIOL 331 (5)
 SSM 429 (4) or PEP 164, 302, and 360 (12)
 PEP 112, 212, 312, 110, 210, 311, 121, 221, 266, 263, and/or SSM 321, 329 (3)
 PEP 119, 219, 319, 120, 220, 324, 116, 216, 316, 114, 214, 269, 262, 268, and/or SSM 330, 332 (3)

Athletic Training

Minor (may lead to NATA Certification Examination) (33 hours and 800 hours clinical experience)

SSM 310, 328, 391, 410 (15)
 HED 313 (4)
 PEP 207, 208, 209, 210, 212, 213, 214, 216, 217, 219, 220, 221, and/or SSM 329, 330, 331, 332 (6)
 PEP 302 or 303 (4)
 PEP 360 or 443 (4)

School of Technology

Jerry Streichler, Director, 208 Technology Building, 372-2436

The School of Technology offers the Bachelor of Science in Education and the Bachelor of Science in Technology. Those programs leading to the Bachelor of Science in Education are appropriate for students interested in teaching at junior or senior high schools or at technical colleges. The programs leading to the Bachelor of Science in Technology are designed for those planning to seek a position in business or industry.

Bachelor of Science in Education

The School of Technology offers several programs in industrial education and technology which lead to the Bachelor of Science in Education. These programs include several options and minors.

Professional education and general education requirements are specified on page 75.

Industrial Education and Technology

208 Technology Building, 372-2436

Major curriculum—Industrial arts (meets special certification, kindergarten-twelfth grade)

First year (46 hours)

ENG 112 (4)
SPCH 102 (4)
DESN 104 (4)
MFG 113 and 114 (8)
EDFI 202 or EDCI 202
TECH 121, 152, and 191 (12)
PEG 100 (3)
ENG literature (4)
Social science elective (4)

Second year (48 hours)

PHYS 214 or CHEM 111 by advisement (4-5)
CS 101 (5)
PSYC 201 (5)
VCT 203 (4)
EDFI 302 (4)
DESN 204 (4)
MFG 214 (4)
CONS 235 (4)
IE 252 and 288 (6)
ET 291 (4)
Science or MATH elective (4-5)

Third year (44 hours),

ECON 200 or 202 (4)
MGMT 305 (4)
Technology concentration (12)
IE 316 and 352 (8)
EDFI 402 and 408 (8)
Electives (9)

Fourth year (44 hours)

EDFI 402 and 408 (8)
EDAS 409 (4)
Technology concentration by advisement (12)
EDCO 331 (15)
IE 447, 448, and 449 (8)
Technology elective (1)
Elective (4)

Minor—Industrial arts (meets high school certification) (49 hours)**

One methods course by advisement (4-8)
Concentration (13)
DESN 104 (4)
MFG 113, 114, and 214 (12)
TECH 191 (4)
VCT 203 (4)
CONS 235 (4)
ET 291 (4)

Minor—Industrial arts (non-certifiable) (36 hours)**

DESN 104 (4)
MFG 113 and 114 (8)
TECH 191 (4)
VCT 203 (4)
CONS 235 (4)
Concentration (12)

Major curriculum—vocational-industrial education (meets high school certification)

First year (46 hours)

ENG 112 (4)
SPCH 102 (4)
DESN 104 (4)
MFG 113 and 114 (8)
Social science elective (4)
TECH 121, 152, and 191 (12)
EDCI 202 or EDFI 202
PEG 100 (3)
ENG literature (4)

Second year (45 hours)

PHYS 214 or CHEM 111 (4-5) by advisement
VCT 203 (4)
MFG 214 (4)
CONS 235 (4)
IE 252 and 288 (6)
TECH 289 (5)
ET 291 (4)
PSYC 201 (5)
CS 101 (4)
MATH or science elective (4-5)

Third year (43 hours)

ECON 200 or 202 (4)
EDFI 302 (4)
IE 352 and TECH 389 (9)
Technology electives (6)
MGMT 305 (4)
Technology concentration by advisement (12)
EDFI 402 (4)

Fourth year (52 hours)

EDFI 408 (4)
EDCO 331 (15)
TECH 389 (5)
IE 449 and 470 (8)

EDAS 409 (4)

Technology concentration by advisement (12)
IE 447 and 448 (4)

Major curriculum—technical college teaching (meets high school certification in industrial arts and qualifications for coordinator of cooperative education program)

First year (55 hours)

ENG 112 (4)
SPCH 102 (4)
PHYS 214 (5)
PHYS 215 or 216 (5)
PEG 100 (3)
EDCI 202 or EDFI 202 (3)
TECH 121, MATH 124, 131, and/or 231 (10)
DESN 104 (4)
MFG 113 and 114 (8)
TECH 152 and 191 (7)

Second year (50 hours)

PSYC 201 (5)
VCT 203 (4)
DESN 204 and 243 (9)
MFG 214 (4)
CONS 235 (4)
IE 252 and 288 (6)
TECH 289 (5)
ET 291 (4)
CS 101 (5)
ENG literature (4)

Third year (41 hours)

ECON 200 or 202 (4)
MGMT 305 (4)
Technology concentration by advisement (12)
EDFI 302 (4)
IE 352 and TECH 389 (9)
Social science elective (4)
EDFI 402 (4)

Fourth year (48 hours)

EDFI 408 (4)
EDCO 331 (15)
Technology concentration by advisement (12)
EDAS 409 (4)
TECH 389 and IE 449 (9)
IE 447 and 448 (4)

Major curriculum—industrial education/special education (meets high school certification in industrial arts and special certification in educable mentally retarded)

First year (48 hours)

DESN 104 (4)
MFG 113 and 114 (8)
TECH 121, 152, and 191 (12)
IE 288 (4)
EDCI 202 or EDFI 202 (3)
ENG literature (4)
MATH or science elective (4)
ENG 112 (4)
PEG 100 (3)
SPCH 102 (4)

Second year (40 hours)

PHYS 214 or CHEM 111 (4-5) by advisement
VCT 203 (4)
MFG 214 (4)

**Upper-division students may arrange a minor program with 300- and 400-level courses.

CONS 235 (4)
 EDSE 456 (4)
 IE 252 (4)
 ET 291 (4)
 PSYC 201 (5)
 CS 101 or 103 (4-5)
 EDCI 355 (3)

Third year (47 hours)
 ECON 200 or 202 (4)
 EDFI 302 (4)
 IE 316 and 352 (8)
 CDIS 423 (4)
 MGMT 305 (4)
 EDSE 431, 433, 451, and 453 (15)
 Technology concentration by advisement (8)

Fourth year (52 hours)
 EDFI 402 and 408 (8)
 EDCO 331 (15)
 IE 447, 448, and 449 (8)
 EDSE 442, 443, 447, 448, and 457 (17)
 EDAS 409 (4)

Major curriculum—industrial arts/special needs vocational education (meets high school certification in industrial arts and OWE/OWA certification)

First year (46 hours)
 ENG 112 (4)
 PEG 100 (3)
 SPCH 102 (4)
 ENG literature (4)
 EDFI 202 or EDCI 202 (3)
 DESN 104 (4)
 MFG 113 and 114 (8)
 TECH 121, 152, and 191 (12)
 Social science elective (4)

Second year (47 hours)
 PHYS 214 or CHEM 111 (4-5) by advisement
 VCT 203 (4)
 MFG 214 (4)
 CONS 235 (4)
 IE 252 and 288 (6)
 ET 291 (4)
 PSYC 201 (5)
 CS 101 or 103 (4-5)
 Science or MATH elective (4-5)
 Electives (8)

Third year (43 hours)
 MGMT 305 (4)
 EDSE 431 and 433 (7)
 ECON 200 or 202 (4)
 EDCI 360 (3)
 BUSE 370 (4)
 IE 352 (4)
 Technology electives (8)
 Other elective (4)

Fourth year (47 hours)
 EDFI 402 and 408 (8)
 EDCO 331 (15)
 BUSE 462 and 470 (8)
 IE 447, 448, and 449 (8)
 EDFI 412 (4)
 EDAS 409 (4)

Major curricula—junior and senior transfer students wishing to teach industrial-technical subjects

The student who presents an associate degree with a technical specialization may receive full credit for the degree if it is technically compatible with one or more of the three options described below and was awarded by an institution approved by the Board of Regents or regionally accredited. These program options exist for persons who want to teach in the subject matter of their associate degree specialization.

Option A—industrial arts teaching

A student who completes the work in the following outline is qualified to teach industrial arts in elementary, middle, and junior and senior high schools and receives an Ohio Provisional Special Certificate (kindergarten-twelfth grade) in the field.

Third year (48 hours)
 EDCI 202 or EDFI 202 (3)
 EDFI 302 (4)
 TECH 152 (3)
 IE 252 and 288 (6)
 VCT 203 (4)
 MGMT 305 (4)
 Technology upper-division core by advisement (24)

Fourth year (53 hours)
 EDFI 402 and 408 (8)
 EDCO 331 (15)
 EDAS 409 (4)
 IE 316, 352, 449, 447, and 448 (16)
 Technology electives (10)

Option B—vocational-industrial teaching

Depending upon the technical specialty and the nature of cooperative internships, students may be eligible to receive Ohio Provisional Certificates, i.e., a provisional certificate as a trade and industrial education teacher, or provisional certificates in other specific vocational areas.

Third year (52 hours)
 IE 288 (2)
 EDFI 302 (4)
 TECH 152, 289, and 389 (13)
 IE 252 and 352 (8)
 VCT 203 (4)
 EDCI 202 or EDFI 202 (3)
 MGMT 305 (4)
 Technology electives by advisement (14)

Fourth year (53 hours)
 EDFI 402 and 408 (8)
 EDCO 331 (15)
 IE 447 and 448 (4)
 Social and behavioral science electives (7)
 EDAS 409 (4)
 TECH 389 and IE 449 (9)
 Technology electives by advisement (6)

Option C—technical college teaching

No certificates are required for teachers of technical subjects on the post-high school level. However, those interested in this professional work must complete, with some options, the course work listed in option B and upon completion of the bachelor's degree requirements are urged to immediately enroll in a Master of Education program that combines post-high school level teaching, cooperative internships, and formal course work.

Vocational work experience

See work experience, College of Education, page 83.

Bachelor of Science in Technology

Bachelor of Science in Technology programs are designed for the student interested in the application of arts and sciences to the technologies of industry. Career opportunities exist in a growing

area of service. Emphasis is placed on technical processes and personnel leadership with such employment classifications as: construction supervision, production management, technical sales, product design, quality control, technical service training, cost and systems analysis. These classifications are used in all segments of our enterprise system including the automotive, construction, pollution control, communications, glass and plastics industries. The University's geographical location is such that excellent cooperation exists with companies and government agencies requiring well-prepared individuals in technology.

A unique strength of this curriculum is its flexibility. During the second year of study, the student, in cooperation with the adviser, selects courses from the appropriate technology concentration, management, marketing, the physical sciences, communications, and the humanities. Industrial experience is gained through the University-sponsored cooperative internship program which is required of all technology majors.

A candidate for the degree of Bachelor of Science in Technology must meet the following requirements for graduation in addition to those listed on page 7.

1. Complete 60 or more quarter hours of credit in courses numbered 300 or above.

2. Complete all requirements for a major including prerequisites, laboratory experiences, and other regulations.

Aerotechnology

214 Technology Building, 372-2436

The aerotechnology concentration is designed to prepare students for responsible positions in aviation. The work is organized around three sequences entitled airport operations, aircraft maintenance, and flight technology. The student should choose two of these sequences for a program.

First year (47 hours)
 ENG 112 (4)
 SPCH 102 (4)
 GEOG 125 (4)
 PEG 100 (3)
 SOC 101 (4)
 MATH (10)
 DESN 104, MFG 113, TECH 152 and 191 (15)
 Elective (3)

Second year (47-48 hours)
 ENG literature elective (4)
 PSYC 201 (5)
 MFG 114 (4)
 TECH 289 (5)
 CS 101 (5)
 PHYS 214, 215, or 216 (5)
 CONS 235 (4)
 ET 291 (4)
 AERT 341 and 342 (4)
 Social science elective (4)
 Elective (3)

Third year (45 hours)
 MGMT 305 or 360 (4)
 TECH 389 I (5)
 TECH elective (4)
 MATH/science elective (5)
 LEGS 301 (4)

Aerotechnology sequences (by advisement)
(20)
Elective (3)

Fourth year (44 hours)
TECH 389 II (5)
Communications elective (4)
Business electives (8)
Aerotechnology sequences (by advisement)
(24)
Elective (3)

Construction Technology

211 Technology Building, 372-2436

This technology curriculum is designed to prepare personnel for technical positions on the construction site and in the office. The three options offered recognize the special requirements of residential, general (including commercial, industrial, and civil), and mechanical/electrical construction. Each option requires course work in the areas of science and mathematics, general education, business, industrial technology, construction job control, design, and methods and materials. Supervised, cooperative internships with a construction-related employer are required.

First year (47 hours)
PEG 100 (3)
SPCH 102 (4)
DESN 104 (4)
MFG 113 and 114 (8)
TECH 152 (3)
CONS 235 (4)
ENG 112 (4)
SOC 101 (4)
MATH 124 and 125 (10); or MATH 131 and 231 (10)
Elective (3)

Second year (47-48 hours)
ENG literature (4)
PSYC 201 (5)
PHYS 214 (5)
CONS 318 (5) (residential and general option) or ET 347 (5) (mechanical/electrical option)
CS 101 or 103 (4-5)
TECH 191 (4)
ET 291 (4)
DESN 301 (5)
Social science electives (8)
Other elective (3)

Third year (42-47 hours)
CONS 306, 307, and 406 and MFG 323 (17) (residential option); or CONS 307, 435, and 437 and DESN 243 (16) (general option); or CONS 337, ET 357, and ENVR 421 (12) (mechanical/electrical option)
TECH 289 (5)
CONS 335 (4)
LEGS 301 (4)
MGMT 305 or 360 (4)
Approved communications elective (4)
Approved MATH/science elective (5)
Other elective (4)

Fourth year (42-47 hours)
Construction electives: residential option—CONS 337, 490, or ET 357 (4) and a construction elective (4); general and mechanical/electrical options—CONS 406, 407, or 490 (4) and a construction elective (5)
TECH 389 I and II
CONS 439 and 440 (8)
Approved business elective (8)
Other electives (8-12)

Design Technology

218 Technology Building, 372-2436

This program involves the efficient application of arts, sciences, technology, and business to the process of design in industry. The arts involve the development of communicative working drawings, renderings, and models. The scientific knowledge required includes a basic understanding of mathematics, physics, and computer science. The technology of manufacturing and construction and selected courses in business complement and complete the design program. An important component of this technology curriculum is a cooperative internship in a design or design-related position in industry which is supervised by University faculty.

Architectural/Environmental Design Option

This technology prepares students to deal with the architectural designs associated with the exterior and interior of such buildings as residences, schools, and municipal projects.

First year (47 hours)
ENG 112 (4)
SOC 101 (4)
TECH 152 (3)
ART 102 and 103 (8)
*Arch./Env. Concentration (3)
PEG 100 (3)
SPCH 102 (4)
DESN 104 (4)
MFG 113 (4)
CS 101 or 104 (5)
Elective (5)

Second year (47 hours)
ENG literature (4)
PSYC 201 (5)
MFG 114 (4)
TECH 289 (5)
*Arch./Env. Concentration (4)
Approved MATH/science (14-15)
ART 112 (3)
DESN 204 (4)
Approved business elective (4)

Third year (45 hours)
TECH 389 I (5)
DESN 243 (4)
Social science elective (4)
*Technical electives (8)
ENG 488 (4)
Approved business elective (4)
*Arch./Env. Concentration (14)
Electives (2)

Fourth year (44 hours)
TECH 389 II (5)
*Arch./Env. Concentration (13)
*Technical electives (9)
Business electives (8)
Electives (9)

*Courses for the architectural/environmental design concentration and technical electives are derived from the following offerings:

Arch./Env. required courses
CONS 235, 307, 439, and 440 (16)
DESN 301 and 450 (9)
ART 213, 313, and 414 (9)

Technical electives

DESN 305 and 436 (8)
GEOG 321 (4)
VCT 203 (4)
HOEC 319 (4)
TECH 489 (5)
Other TECH/ART courses by advisement

Mechanical Design Option

This technology prepares the student to design tools and machines for manufacturing processes, and to deal with the practical aspects of generation and transmission of heat and fluid power.

First year (45 hours)
ENG 112 (4)
SOC 101 (4)
ART 102 and 103 (8)
MFG 113 (4)
TECH 152 (3)
PEG 100 (3)
SPCH 102 (4)
CS 101 or 104 (5)
DESN 104 (4)
Electives (6)

Second year (48 hours)
ENG literature elective (4)
PSYC 201 (5)
MFG 114 (4)
TECH 289 (5)
Social science elective (4)
**Mechanical design concentration (4)
ART 112 (3)
DESN 204 (4)
Approved MATH/science sequence (15)

Third year
TECH 389 I (5)
DESN 243 (4)
**Mechanical design concentration (12)
ENG 488 (4)
Approved science sequence (10)
Approved business elective (8)
Elective (2)

Fourth year (45 hours)
TECH 389 II (5)
**Mechanical design concentration (20)
**Approved technical electives (15)
Electives (5)

**Courses for the mechanical design concentration and technical electives are derived from the following offerings:

Mechanical design required courses

DESN 304, 455, and 490 (12)
ET 347 and 441 (8)
CONS 337 (4)
MFG 338 and 426 (8)
TECH 454 (4)

Technical electives by advisement

MFG 214 and 391 (8)
TECH 489 (5)
Other technical courses by advisement

Product Design Specialization

This technology involves the design of products with the aid of technology and art. The program prepares the student to develop creative solutions to three dimensional problems involving aesthetics, materials, manufacturing processes, and human factors. This is a cooperative program between the School of Technology and the School of Art.

First year (46 hours)

ENG 112 (4)
 PEG 100 (3)
 ART 102 and 103 (6)
 MFG 113 (4)
 TECH 152 (3)
 SOC 101 (4)
 SPCH 102 (4)
 CS 101 or 104 (5)
 DESN 104 (4)
 Electives (7)

Second year (47 hours)

ENG literature elective (4)
 PSYC 201 (5)
 DESN 204 (4)
 Approved business elective (4)
 *Product design specialization (4)
 ART 112 (3)
 MFG 114 (4)
 TECH 289 (5)
 Approved MATH/science (14-15)

Third year

TECH 389 I (5)
 DESN 243 (4)
 *Product design specialization (14)
 *Technical electives (11)
 ENG 488 (4)
 Approved business elective (4)
 Social science elective (4)

Fourth year (44 hours)

TECH 389 II (5)
 *Product design specialization (14)
 Technical electives (8)
 Business electives (8)
 Electives (9)

*Courses for the product design specialization and technical electives are derived from the following offerings:

Product design required courses

ART 147, 211, 212, 313, 314, 416, and 419 (21)
 ART 145 or 146 (3)
 DESN 304 and 452 (8)

Technical Electives

ART 414, 416, and/or 418 (9-12)
 DESN 404 (4)
 TECH and ART courses by advisement

Other programs

Three other design specializations are available: graphic design and environmental design in the School of Art and interior design in the Department of Home Economics.

Electronic Technology

210 Technology Building, 372-2436

The program in electronic technology is a comprehensive study of the diverse areas of electronics (circuits, devices, computer interfacing and systems) with theories from physics, mathematics, and computer science. This knowledge is blended with industrial technology, management, business, and social sciences to develop flexibility in employment. An important component of this technology curriculum is a cooperative internship program in industry which is supervised by University faculty.

First year (47 hours)

ENG 112 (4)
 SOC 101 (4)
 TECH 121 and MATH 124 (10); or MATH 124 and 125 (10); or MATH 131 and 231 (10)

PEG 100 (3)
 SPCH 102 (4)
 DESN 104 (4)
 MFG 113 (4)
 TECH 152 and 191 (7)
 ET 291 (4)
 Elective (3)

Second year (45 hours)

CS 101 (5)
 PHYS 214, 215, and/or 216 (10)
 Electronic concentration (8)
 ENG literature (4)
 PSYC 201 (5)
 MFG 114 (4)
 TECH 289 (5)
 CONS 235 (4)

Third year (46 hours)

TECH 389 (5) I
 Electronic concentration (16)
 Approved business elective (8)
 Social science electives (8)

Fourth year (45 hours)

TECH 389 (5) II
 Technical elective (4)
 Approved business electives (12)
 IPCO 306 or 307 (4)
 Electronic concentration (12)
 Other electives (8)

Industrial Environment Technology

210 Technology Building, 372-2436

This program consists of studies in industrial and engineering technology, business, and the sciences. Technical problem solving in manufacturing, instrumentation, and process control gives students an appreciation of industrial production practices, while studies in business emphasize consideration of the organizational, legal, and financial principles involved. The sciences, primarily chemistry and biology, offer students the opportunity to develop an in-depth understanding of the chemical nature of pollutants and their effect on the ecological system. An important component of this technology curriculum is a cooperative internship program in industry which is supervised by University personnel.

First year (45 hours)

ENG 112 (4)
 BIOL 201 (4)
 CHEM 121 and 122 (10)
 DESN 104 (4)
 TECH 152 (3)
 SPCH 102 or IPCO 203 (4)
 PEG 100 (3)
 MATH 124 or 131 (5)
 Electives (7)

Second year (49-50 hours)

CS 101 or 103 (4-5)
 BIOL 202 and 203 (10)
 MFG 113 and 114 (8)
 TECH 191 (4)
 CHEM 123 (5)
 PSYC 201 (5)
 MATH 125 or 231 (5)
 ET 291 (4)
 Elective (3)

Third year (46 hours)

MGMT 305 and 331 (8)
 MFG 214 (4)
 CONS 235 (4)
 BIOL 301, 321, and 322 (13)

TECH 389, 391, and 454 (14)
 Elective (4)

Fourth year (43 hours)

LEGS 301 (4)
 Electives in MGMT, BA, or LEGS (8)
 DESN 243, 436; CONS 307, 335; MFG 329, 361, 459; ET 347, 348, 441; ENVR 421, and/or 490 (25)
 Other elective (6)

Industrial Training Technology

217 Technology Building, 372-2436

Industrial trainer preparation is an interdisciplinary program of studies consisting of blocks of course work in technology, instruction technology, related social sciences, and management. The combination of practical/laboratory studies, applied disciplines, and actual work experience (cooperative internships) will enable the graduate to function confidently in the industrial training role.

First year (47 hours)

ENG 112 (4)
 SPCH 102 (4)
 MATH elective (by advisement) (5)
 PEG 100 (3)
 ENG literature (4)
 DESN 104 (4)
 MFG 113 and 114 (8)
 TECH 152 and 191 (7)
 Other electives (8)

Second year (49-51 hours)

PHYS 214 or CHEM 111 by advisement (4-5)
 ECON 200 or 202 (4)
 PSYC 201 (5)
 CS 101 or 103 (4-5)
 VCT 203 (4)
 DESN 204 (5)
 MFG 214 (4)
 CONS 235 (4)
 IE 252 and 288 (6)
 TECH 289 (5)
 ET 291 (4)

Third year (45 hours)

EDFI 302 (4)
 ENG 488 (4)
 IE 352 (4)
 VCT 282 and 466 (8)
 MGMT 360 (4)
 Electives in PSYC, and/or SOC by advisement (12)
 TECH 389 (5)
 Other elective (4)

Fourth year (42 hours)

EDFI 402 (4)
 Electives in MGMT, by advisement (12)
 L&EM 435 and 455 (8)
 TECH 389 (5)
 IE 428 (4)
 Other electives (9)

Manufacturing Technology

210 Technology Building, 372-2436

This field of study draws upon the principles of mathematics and the physical sciences and applies them to industrial problems related to manufacturing systems. An understanding of the computer and its use in designing, monitoring, and controlling manufacturing processes

is also an important part of this program. In addition to these technical studies, the curriculum offers excellent opportunities for studies in management and industrial psychology. An important component of this technology curriculum is a cooperative internship program in industry which is University supervised.

First year (48 hours)

ENG 112 (4)
SOC 101 (4)
SPCH 102 (4)
DESN 104 (4)
MFG 113 and 114 (8)
TECH 152 and 191 (7)
ENG literature elective (4)
TECH 121, MATH 124, or 131 (5)
PEG 100 (3)
MATH 115 (5)

Second year (45 hours)

CS 101 or CS 103 (4-5)
PHYS 214, 215, and/or 216 (10)
DESN 204 (4)
MFG 214 (4)
PSYC 201 (5)
MATH 124, 125, or 231 (5)
TECH 289 (5)
ET 291 (4)
ECON 200 (4)

Third year (47 hours)

IPCO 306 or 307 (4)
TECH 389 (5) I
VCT 203 (4)
CONS 235 (4)
DESN 243 (4)
MFG 338 (4)
Social science elective (4)
Business electives (10)
Manufacturing concentration (8)

Fourth year (43-44 hours)

TECH 389 (5) II
ENG 488 (4)
MFG 426 and 427 (8)
Other electives (8)
Business electives (10)
Manufacturing concentration (11-12)

Visual Communication Technology

215 Technology Building, 372-2436

The visual communication technology program prepares students for media production, training, sales, and management positions within the communication industry. These careers require general and specific technical competencies in design, printing, television, film, display, and photography. With help from an adviser, each student selects in the junior year an occupational cluster for specialization from 21 possible career options. The total program proceeds through a framework of analyzing and applying the many methods of creating, reproducing, and distributing visual communication materials. Students ultimately combine concepts, theories, and principles with critical and creative-technical problem solving abilities to generate solutions for visual communication problems.

By developing the ability to solve communication problems, students will be prepared for such technological production

and management positions as advertising production, graphic design, commercial and industrial photography, motion picture and television graphics, multimedia production, printing and publishing plant control, and similar occupations.

Courses in occupational clusters are chosen individually by each student with the assistance of an adviser. The occupational clusters are display production, display marketing/sales, display management, photographic production, photographic marketing/sales, photographic management, photographic training, print production, print marketing/sales, print management, print training, film production, film marketing/sales, film management, film training, television production, television marketing/sales, television management, television training, industrial media specialist, visual communications generalist.

Students who have obtained an associate degree in an allied communication area may pursue a bachelor's degree in visual communication technology by enrolling in the curriculum for transfer students.

First year (46 hours)

Science requirement (8)
SPCH 102 (4)
JOUR 103 or 105 (4)
TECH 152 (3)
VCT 203 (4)
PEG 100 (3)
ENG 112 (4)
SOC 101 (4)
ART 101 (3)
TECH 121, MATH 124 or 131 (5)
Elective (4)

Second year (45-46 hours)

PSYC 201 (5)
ECON 200 (4)
VCT 208 and 282 (8)
CS 101 or 103 (4-5)
ART 211 (3)
RTVF 263 and 264 (8)
TECH 289 (5)
Electives (8)

Third year (48 hours)

MGMT 305 (4)
TECH 389 (5) I
Visual communication occupational cluster (20)
MKT 300 (4)
ART 311 (3)
VCT 467 (4)
Electives (8)

Fourth year (44 hours)

TECH 389 (5) II
VCT 490 (4)
Visual communication occupational cluster (20)
Electives (15)

Curriculum for Transfer Students in Technology Programs

208 Technology Building, 372-2436

For students who have earned an associate degree in an engineering or related technology from a regionally or Ohio Board of Regents accredited post-secondary institution, the upper division program (junior and senior years) is designed by the

student and an adviser in one of the technology programs offered.

At least 97 hours must be earned at Bowling Green State University. After analysis of the student's credentials, appropriate courses are selected by the student and adviser to best fulfill career objectives.

The upper division program and the associate degree combined should result in a distribution of courses in fields with minimum quarter credit hours as follows:

Communication (ENG, SPCH, IPCO, RTVF, literature, technical report writing)
16 hours required for all technology programs

Social science (GEOG, HIST, ECON, SOC, PSYC, POLS, LEGS)
20 hours required for all technology programs

Science and mathematics

25 hours required in all technology programs except environment technology and visual communication technology; 53 hours required for environment and 18 hours for visual communication.

Business (MGMT, MKT, ECON, LEGS, ACCT, STAT, MIS, OPRE)

20 hours required in all technology programs except visual communication technology which requires only eight.

Technology core

31 hours required in design, electronics, and manufacturing technology; 33 hours in visual communication technology; 27 hours in construction technology; and 40 hours in environmental technology.

Technology concentration (16 hours in this area must be taken at Bowling Green)
43 hours required in design, electronics, and manufacturing technology; 47 hours in construction technology; 53 hours in visual communication technology; and 25 hours in environmental technology

Cooperative internship

10 hours required for all technology programs

Electives

28 hours required for construction, design, electronics, and manufacturing technology; 18 hours in environment technology; and 35 hours in visual communication technology



College of Health and Community Services

Mary E. Miles, Dean, 100 Health Center, 372-0242

Edward E. Morgan Jr., Assistant Dean, 102 Health Center, 372-0242

Judy C. Price, Director of Program Advisement, 102 Health Center, 372-0242

Applied Microbiology, Robert Romans, Ph.D., Acting Director, 111D Life Sciences Building, 372-2058

Art Therapy, Dvora Krueger, M.A., A.T.R., Director, 107 Fine Arts Building, 372-2786

Child and Family Community Services, Sara Derrick, Ph.D., Director, 206 Johnston Hall, 372-2026

Criminal Justice, Gerald Rigby, Ph.D., Director, 120A Health Center, 372-2326

Dietetics, Millicent deOliveira, M.S., R.D., Director, 206 Johnston Hall, 372-2026

Environmental Health, Judy Price, M.A., Acting Director, 102 Health Center, 372-0242

Gerontology, John Hiltner, Ph.D., Director, 120A Health Center, 372-2326

Medical Record Administration, Janis Fisher, B.S., R.R.A., Director, 102 Health Center, 372-0242

Medical Technology, William Hann, Ph.D., Director, 111 Life Sciences Building, 372-0109

Parasitology and Medical Entomology, Lee Rockett, Ph.D., Director, 303 Life Sciences Building, 372-2834

Physical Therapy, Robert Livengood, M.S., L.P.T., Director, Medical College of Ohio, 381-5040 or Lee Meserve, Ph.D., Coordinator, 503B Life Sciences Building, 372-0361

Speech Pathology and Audiology, Melvin Hyman, Ph.D., Director, 338B South Hall, 372-2223

Social Work, Evan Bertsche, M.A., Director, 220 Williams, 372-2441

School of Nursing, Grace Chickadonz, Ph.D., R.N., Director, Medical College of Ohio, 381-3418 or Ardith Sudduth, M.S., R.N., Coordinator, 102 Health Center, 372-0242.

Academic Advising

Each student is assigned a faculty adviser within the program selected. In addition, career guidance and advising services are provided for students in the college office located in the Health Center. The responsibility for meeting graduation requirements lies with the student and not with the adviser, the program director or the dean. Reading and following the information in the *Undergraduate Catalog* is essential. The Office of the Dean requires that each student request a degree audit when 135 credits have been accumulated.

Degrees Offered

The degrees awarded by the College of Health and Community Services and its School of Nursing are:

Bachelor of Science in Applied Microbiology
 Bachelor of Science in Art Therapy
 Bachelor of Science in Child and Family Services
 Bachelor of Science in Criminal Justice
 Bachelor of Science in Dietetics
 Bachelor of Science in Environmental Health
 Bachelor of Science in Gerontology
 Bachelor of Science in Medical Technology
 Bachelor of Science in Nursing
 Bachelor of Science in Parasitology and Medical Entomology
 Bachelor of Science in Physical Therapy
 Bachelor of Science in Social Work
 Bachelor of Science in Speech Pathology and Audiology

A candidate for any Bachelor of Science degree in the College of Health and Community Services or School of Nursing must complete the general requirements for graduation listed on page 7. In addition, all students must complete a senior check sheet. Required internships, field work, and clinical practicums completed during the last 45 hours will be considered in residence even though they may be taken off campus.

General Education Requirements

Each program major insures a breadth of knowledge by means of specific general education requirements. To maintain program flexibility, the college requires that each student take a minimum of 40 quarter hours in general education. General education requirements should be completed as early as possible.

Group I: Communication

Any courses in SPCH and/or IPCO
 *ENG 207, 208, 308, and/or 488
 PHIL 103

Two courses in the same foreign language as taken in high school, or one course in a foreign language if high school preparation included four years of one language (must be in same language as taken in high school). Cultural series courses will *not* be accepted. If a student wants to begin a new language, three quarters must be taken to satisfy this group requirement.

Group II: Foreign Language

None required, see group I.

Group III: Mathematics and Natural Science

Any courses in BIOL, CHEM, GEOL, MATH and/or PHYS
 *GEOG 125, 126, 127, 213, 404, and/or 471
 PHIL 303

Group IV: Social Sciences

Any courses in ECON, GEOG, HIST, POLS, PSYC, SOC, or ETHN 101, 210, 304, 410

Group V: Arts and Humanities

Any courses in POPC, THEA, and/or AMST
 ART 101 and/or any courses in art history
 ENG literature
 Music theory and appreciation
 PHIL (except PHIL 303)
 Foreign language cultural series courses

*Only the courses specified meet requirements; they need not be taken in the order listed.

Group VI: Applied Arts and Sciences

Any courses in AERO, AERT, BUSE, CONS, CS, DESN, ENVR, ET, IE, GERO, HOEC, JOUR, LEGS, MFG, MGMT, MKT, MRA, NURS, SOWK, STAT, TECH, and/or VCT.

*ACCT 221, 222, and/or 325

Any ART studio courses

*EDFI 302 and/or 342 (others by permission)

*EDSE 431, 451, and/or 453 (others by permission)

*HED 109, 110, 209, and/or 314

L&EM 428, 430, 431, 434, and/or 435
MATH 115

*MIS 200 and/or 475

Any music composition and/or performance courses

*PEP 302, 303, 322, and/or 443

PHIL 103

*PSYC 270 and/or 271

SOC 369

*SSM 310 and/or 313

Grading option

A student may request the S/U grading option in as many as 24 credits in a baccalaureate degree program, in addition to courses universally graded on an S/U basis. (Please refer to grading system for University requirements regarding S/U standards).

Students in the College of Health and Community Services shall be permitted to exercise the S/U grade option only for electives, general education group requirements, or practicums. Directors may limit further the use of the S/U option in their programs.

Degree Programs

In most cases, the sequence of courses listed below must be completed in order to meet the requirements for the major or for professional certification. Upon the recommendation of the program director, and with final approval resting with the dean of the College of Health and Community Services, some courses may be substituted.

Applied Microbiology

536 Life Sciences Building, 372-2731

Microbiology is a practical science that makes important contributions to medicine, industry, and agricultural and environmental control. Microbiologists are employed by medical or clinical laboratories for detection and diagnosis of disease. Public health laboratories use microbiological procedures in testing water supplies for potability and in quantifying incidences of communicable diseases.

Microbiologists work as public health officials in consulting infected individuals to

control the spread of diseases. They also work in the food, dairy, or liquor industries to maintain the quality of the products produced, and in pharmaceutical companies, which ferment microbes to produce antibiotics.

Sanitation laboratories employ microbiologists for the safe treatment of sewerage. Additionally, the small size and simple organization of microorganisms makes them the most effective subjects for studying life at its most fundamental level. Research with microbes has made important contributions to the understanding of genetics and cancer. Microbiological screens presently are being used to detect hazardous chemicals which could cause cancer if widespread in the environment.

Students complete courses in chemistry, bacteriology, virology, immunology, pathogenics, microbial physiology, and microbial genetics. They may also perform independent research projects in addition to course work. During the senior year, students may take the examinations that register them as qualified microbiologists of the National Registry of Microbiologists of the American Academy of Microbiology. This examination may also be taken after a period of employment.

An individual with the Bachelor of Science in Applied Microbiology degree from Bowling Green may pursue advanced degrees in medical schools or universities to specialize in pathology, protozoology, virology, microbial genetics, immunology, and food science.

Suggested program

First year

BIOL at introductory level, according to student goals (10)

MATH 131 or equivalent (5)

PEG 100 (3)

CHEM 121, 122, and 123 (15), or CHEM 131, 132, and 133 (15)

ENG 112 or equivalent (4-8)

Electives and general education requirements

Second year

CHEM 201, 306, 308, and 309 (16), or CHEM 201, 343, and 344 (14), or CHEM 343, 344, and 345 (14)

BIOL 313 and 421 (10)

Electives and general education requirements

Third year

BIOL 426 and 443 (10)

BIOL 405, 406, 407, 409, 410, 424, 436, and/or 439 (10)

CHEM 345 (if CHEM 201-343-344 sequence, above, is chosen) (4)

Program seminars (2 hours each) (2-4)

General education requirements

Fourth year

BIOL 401, 405, 406, 407, 410, 424, 436, 439, and/or 470 (15)

CHEM 308 and 309 (6), or CHEM 445 and 447 (8)

Program seminars (2 hours each) (2-4)

General education requirements

Other programs

Microbiology is also offered as a program by the Department of Biology in the College of Arts and Sciences.

Art Therapy

102 Health Center, 372-0242

A Bachelor of Science in Art Therapy degree is available through the College of Health and Community Services in cooperation with the School of Art. The program offers extensive studio art courses, art therapy core requirements, supportive core requirements in the behavioral and social sciences, and a cognate or specialization. The interdisciplinary nature of the program prepares graduates for professional entry in activities or recreational programs in special schools, hospitals, institutions, and residential centers. The program fulfills American Art Association requirements for entry into master's degree programs in art therapy.

The role of the art therapist as a member of the health care team is gaining wide acceptance. In recent years, an increasing variety of patients have been served by art therapists. Changing practices in the field of mental health have created an even broader definition of the art therapy specialization. Art therapists may work with programs in educational institutions, orphanages, hospitals, community mental health and mental retardation programs, geriatrics, and other social services.

Suggested program

First year

ENG 111 and/or 112 (4-8)

PEG 100 (3)

ART 102 (5)

PSYC 201 (5)

SOC 101 (4)

Studio art courses (9)**

General education requirements and electives (11-15)

Second year

ART 230 and 252 (7)

SOWK 110 (4)

EDFI 302 (5)

Studio art courses (15)**

General education requirements (9)

Electives or cognate (5)

Third year

ART 330, 331, and 456 (11)

PSYC 405 (5)

EDSE 432 (4)

Studio art courses (7)**

Electives or cognate (21)

Fourth year

ART 352 and 431 (20)

PSYC 403 (4)

Studio art courses (3)**

Electives or cognate (18)

Students may continue in this program only after taking ART 230 and receiving approval from the director of art therapy. The program is subject to revision and may be modified to meet student needs.

*Only the courses specified meet requirements; they need not be taken in the order listed.

**Studio art courses must include ART 103, 104, 112, 145 or 146, 205, 261, 263, 265, 277, 361, 371, and 373.

Child and Family Community Services

206 Johnston Hall, 372-2026

This is a multidisciplinary program for students who wish to concentrate in either children's services or family services. Students may complete both areas of specialization by reducing the number of free electives. Within both areas strong emphasis is placed upon developing personal competencies necessary to provide human services for persons of all ages. Internships in a variety of agencies such as preschools, family courts, mental health and mental retardation clinics, and hospitals complement the program.

Specific courses of study are available for students who wish to pursue careers working with entire families, adolescents, infants and children, or other specific groups of individuals. In addition, a cognate in child life is available for students who wish to work with hospitalized children, adolescents, and their families.

The Child and Family Community Services program also serves as a foundation for graduate work in related behavioral sciences and as a third and fourth year program for graduates of two-year colleges with a major in related disciplines. Graduates of this program receive a Bachelor of Science in Child and Family Community Services degree.

Children's Services Option

Suggested program

First year

ENG 112 or equivalent (4-8)
ART 101 (3)
HOEC 105, 120, and 205 (11)
SPCH 102 (4)
PEG 100 (3)
BIOL 104 (5)
SOC 101 (4)

General education requirements and electives

Second year

PSYC 201 (5)
HOEC 207, 224, 320, 321, and 322 (16)
HOEC 107 or 408 (4)
HOEC 387 (2-6)

General education requirements

Recommended professional electives

Third year

HOEC 302, 325, and 435 (9)
ENG 342 (5)
IPCO 203 or 306 (4)
HED 313 (4) or Multimedia First Aid Certificate
Electives

Fourth year

HOEC 407, 421, 422, and 423 (14)
HOEC 489 (5-10)
L&EM 441 (3)

Recommended professional electives

This program may be modified to meet student needs and interests.

Family Services Option

Suggested program

First year

ENG 112 or equivalent (4-8)
HOEC 105, 120, and 205 (11)
ART 101 (3)**

PEG 100 (3)
BIOL 104 (5)**
SOC 101 (4)

General education requirements and electives

Second year

PSYC 201 (5)
HOEC 207, 327, and 328 (12)
HOEC 405 (5)

General education requirements and electives

Third year

HOEC 302, 415**, and 426 (12)
PSYC 307 and 405 (9)
HOEC 387 (2-6)

Professional electives

Fourth year

HOEC 407 and 427 (9)
HOEC 489 (5-10)
PSYC 440 (3)

Professional electives

This program may be modified to meet student needs.

Other programs

Programs in related areas are offered through the Department of Home Economics in the College of Education.

Criminal Justice

120A Health Center, 372-2326

In preparation for careers in law enforcement, investigative processes, penal institutions, probation and parole work, and other agencies in the criminal justice system, the criminal justice program integrates course work and interaction with professionals in various disciplines. The graduate of the program will receive a Bachelor of Science in Criminal Justice degree. The options possible in criminal justice are law enforcement and corrections.

Students in the law enforcement option may begin their studies at any of several technical or community colleges with which Bowling Green State University has formal agreements. Cooperative programs have been developed with Owens Technical College, Lima Technical College, Toledo Community Technical College, Lorain County Community College, and North Central Technical College. Completion of a two-year associate degree in law enforcement may allow the student to enter the baccalaureate program in criminal justice with junior standing. Students may also choose to complete the entire four-year degree program at Bowling Green.

Students in both law enforcement and corrections must complete, preferably during the senior year, an internship in an appropriate agency. The student is responsible for developing the internship site. However, all internships are subject to the approval and supervision of the program director.

Law Enforcement Option

University and general education group requirements

ENG 112 or equivalent (4-8)
PEG 100 (3)

At least 8 hours in each group of the general education requirements; strongly recommended in group IV:

SOC 101 (4)
PSYC 201 (5)

Core courses (85-86 hours)

CRJU 210, 220, 230, 240, 250, 310, and 480 (29)

POLS 201, 221, 417, and 418 (16)

POLS 419 or PHIL 318 (4)

PSYC 454 (4)

PSYC 405 (5)

SOC 316, 341, 342, 441, and 443 (20)

SOC 301 or PSYC 311 (3-4)

SOC 369 or PSYC 270 (4)

Internship (15 hours)

Core electives (24-28 hours)

These courses should be selected carefully to supplement the general education and core requirements. Core electives require approval by the program director. Core electives shall be restricted to 300-400 level courses, except for CS 100 and transfer credit for courses prior to admission to Bowling Green State University. Any course in which a grade of "D" has been recorded will not be accepted in the core or core electives. The following are strongly recommended:

ACCT 325 (4)

CS 100 (4)

MGMT 360 (4)

PHIL 327 (4)

POLS 332, 347, 430 and 432 (16)

PSYC 305 (3)

Suggested program

First year (41-49 hours)

ENG 112 or equivalent (4-8)

POLS 201 (4)

PEG 100 (3)

General education courses, groups I, III, IV, V, and VI (17-21)

Group IV courses (SOC 101 and PSYC 201 strongly recommended) (9)

Second year (48-55 hours)

CRJU 210, 220, 230, 240, and 250 (21)

Completion of group requirements.

Third year

CRJU 310 (4)

Completion of core courses

Core electives

Fourth year

CRJU 480 (4)

Internship (15)

Completion of core courses and core electives

Corrections Option

University and general education group requirements

Same as law enforcement option

Core courses (86-87 hours)

CRJU 210 and 480 (8)

MGMT 360 or POLS 330 (4)

PHIL 327 (4)

POLS 201, 221, 347, 417, and 418 (20)

PSYC 304, 305, 405, and 454 (15)

PSYC 270 or SOC 369 (4)

SOC 301 or PSYC 311 (3-4)

SOC 316, 341, 342, 352, 370, 441, and 442 (28)

Internship (15 hours)

Core electives (26-30 hours)

These courses supplement the general education and core requirements. Core electives require approval by the program director. Core electives shall be restricted to 300-400 level courses, except for CS 100 and transfer credit for courses completed prior to admission to Bowling Green State University. Any course in which a grade of "D" has been recorded will not be accepted in the core or core electives. The following are strongly recommended:

ACCT 325 (4)
 CS 100 (4)
 HOEC 408 (check prerequisites) (4)
 PHIL 318 (4)
 BOLS 332, 422, 430, and 432 (16)
 Consideration should also be given to selection of courses from the law enforcement core major.

Suggested program*First year*

ENG 112 or equivalent (4-8)
 POLS 201 (4)
 CRJU 210 (4)
 PEG 100 (3)

General education courses, groups I, III, IV, V, and VI

Group IV courses (SOC 101 and PSYC 201 strongly recommended) (9)

Second year

Completion of group requirements (15-19)
 Core courses
 Core electives

Third year

Core courses
 Core electives

Fourth year

Completion of core courses and core electives
 CRJU 480 (4)
 Internship (15)

Dietetics

206 Johnston Hall, 372-2026

A professional program leading to membership and registration in the American Dietetic Association is offered in the College of Health and Community Services. The requirements for registration are an internship or preplanned work experience in an accredited institution, and the passing of the national examination upon completion of either of these professional programs. A declaration of intent to pursue the dietetics program should be placed in the college office prior to freshman registration or during the first year at Bowling Green State University. Admission to the dietetics program requires the completion of 45 quarter hours of credit, approval by the dietetics faculty, and a grade point average of 2.5 or above. The graduate of the program will receive a Bachelor of Science in Dietetics degree.

The dietetics curriculum meets the requirements of the generalist dietetics program as outlined by the American Dietetic Association. After an appropriate internship, the graduates of this program will be prepared to function as therapeutic or administrative dietitians in hospitals, extended care facilities, community centers, or restaurants.

Suggested Program*First year (44-48 hours)*

BIOL 201 (5)
 ENG 112 or equivalent (4-8)
 PEG 100 (3)
 SOC 101 (4)
 CHEM 121, 122, and 123 (15)
 HOEC 210 (5)
 MATH 124 or equivalent (5)
 General education requirements and electives (3)

Second year (48 hours)

BIOL 313 (5)
 ECON 200 (4)
 CHEM 306, 308, and 309 (11)
 PSYC 201 (5)
 EDFI 302 (4)
 HOEC 212, 307, 326, and 327 (16)
 General education requirements or electives (3)

Third year (45-48 hours)

ACCT 325 (4)
 HOEC 331, 333, 405, and 432 (17)
 MIS 200 or other basic computer course (4)
 MGMT 360 and 361 (8)
 HOEC 389 (suggested elective) (2-5)
 BIOL 411 (5)
 DESN 301 (5)

Fourth year

HOEC 431, 433, 434, 435, 436, and 480 (23)
 HOEC 489 (elective) (5-10) (may be repeated)
 Suggested professional electives: HOEC 205, 206, 303, and 324 (3-4 each)

Other programs

A program in dietetics also is offered in the College of Education through the Department of Home Economics.

Environmental Health

124 Hayes Hall, 372-0207

This integrated, multidisciplinary program prepares environmental health specialists, who are able to improve and maintain the quality of both our indoor and outdoor environments. Graduates are employed by private industry, environmental protection agencies, public health departments, county engineering departments, pollution analysis laboratories, air pollution agencies, private consulting firms, water and wastewater treatment facilities, occupational safety and health agencies, health care facilities, and insurance-risk management agencies. The curriculum emphasizes the biological and physical sciences with additional requirements in the social sciences, computer science, and statistics. Students learn to perform sample collection and analysis of indoor and outdoor environments to ensure compliance with occupational, public health, safety, and environmental quality laws. Program options include public health, environmental protection, industrial hygiene and safety, and bio-medical support. The professional technical courses are taken in a one-year sequence at the University's Firelands campus where special laboratory facilities and instructional opportunities are located. A graduate of the program receives a Bachelor of Science in Environmental Health degree.

Suggested program*First year*

ENG 112 or equivalent (4-8)
 Communications elective (4)
 MATH 124, 130, or 222 (5)
 SOC 101 (4)
 BIOL 101 or ENVT 141 (5)
 CHEM 121, 122, and 123 (15)
 CS or STAT (4)
 PEG 100 (3)

Second year

BIOL 201, 202, and 203 (15) or 104, 331, and 332 (15)*
 PHYS (2 courses) 214, 215, 216, 101E or 430 (8-10)
 POLS 331, 332, 335, 336, or 430 (4)
 ECON 200 or 202 (4)
 SOC elective (4)
 Humanities elective (4)
 Option requirements (8-10)*

Third year (at Firelands campus)

ENVT 121, 160, 225, and 260 (14)
 Electives (4-12)
 Choose one option:
 Public Health: ENVT 110, 211, 223, 226, 270, 280, 281
 Environmental Protection: ENVT 110, 211, 222, 223, 290
 Industrial Hygiene and Safety: ENVT 261, 270, 272, 290; TECH 218; MFG 113, 114
 Bio-medical Support: ENVT 261, 270, 272, 290; ET 244, 247, 248, 290

Fourth year

ENVH 404 (4)
 CHEM 306 (5)
 CS or STAT (4 or 5)
 SOC elective (4)
 Internship (6)
 Option requirements (8-21)
 Humanities elective (4)
 Communications elective (4)

This program is subject to revision and may be modified to meet student needs. Electives must be approved by the program director.

Other programs

Environmental programs are also offered by the College of Arts and Sciences, College of Education, and Firelands College. Descriptions of all programs are available at the Center for Environmental Programs, 124 Hayes Hall, 372-0207.

Gerontology

120A Health Center, 372-2326

The Bachelor of Science in Gerontology degree prepares graduates for positions in agencies and institutions that administer and deliver services for the aged such as: social service agencies, senior centers, nutrition programs, nursing homes, recreation and counseling agencies, and research organizations.

While providing a basic background in general studies, the gerontology program is flexible enough to permit students to design courses of study that will best prepare them for particular types of careers within the general field of aging.

A special option available to students majoring in gerontology is to select a course of study which prepares the student to take the examination for a licensed

*depends on option

nursing home administrator in the state of Ohio. Since this option requires careful planning, the program director must be consulted early in the student's academic career.

Each student in the gerontology program selects a cognate area from social work, administration, accounting and systems, exercise physiology, biology, activities therapy, long-term-care administration, urban geography and planning, speech communication, psychology, nutrition, recreation, family services. Other cognate areas may be designed by the student and the program director.

During the course of the program, each student completes a field placement in an agency or an institution serving the elderly.

Suggested program

First year

ENG 112 or equivalent (4-8)

MATH 114 (4)

SOWK 110 (4)

PSYC 201 (5)

PEG 100 (3)

BIOL 104 (5)

SOC 101 (4)

HOEC 207 (4)

Cognate requirements

General education requirements

Electives

Second year

BIOL 332 (5)

GEOG 326 (4)

PSYC 309 (3)

SOC 404 (4)

HOEC 429 (4)

IPCO 306 and 406 (8)

SOC 301 or PSYC 311 (3-4)

Cognate requirements

General education requirements

Electives

Third year

MGMT 305 or 360 (4)

PHIL 319 (4)

SOC 463 (4)

HOEC 436 (3)

Cognate requirements

Electives

Fourth year

GERO 410, 420, and 493 (7)

GERO 491 (15)

Cognate requirements

Electives

This program is subject to revision and may be modified to meet student needs.

Medical Record Administration*

102 Health Center, 372-0242

All health care institutions keep records on each patient that contain medical information of the case histories of illnesses or injuries, reports on physical examinations, x-rays and laboratory tests, doctor's orders and notes, and nurses' notes. Registered Record Administrators supervise the acquisition of the complete medical records of each patient cared for by a medical team, plan record retention and retrieval systems and supervise their maintenance. They train members of the

medical staff for specialized jobs, compile medical statistics required by state or national health agencies, and assist the medical staff in the evaluation of patient care or research studies.

The medical record administration program is usually pursued during the third and fourth year of study for the Bachelor of Science in Medical Record Administration degree. After formal approval of the program by the American Medical Record Association, graduates of the program will be eligible to take the national registration examination given by the American Medical Record Association. Passing this examination certifies a person as a Registered Record Administrator (RRA).

To be eligible for admission into the Medical Record Administration program students must have completed a two-year associate degree program in medical record technology such as the one offered at Firelands College or have verification of Accredited Record Technician (ART) certification.

Admission Criteria

The following criteria must be fulfilled for admission to the final two years of the medical record administration program:

1. Admission to BGSU.
2. Written application.
3. Verification of ART certification or associate degree.
4. Personal interview.
5. Two letters of reference (one personal and one professional).
6. Technical skills test (i.e., typing, transcriptions, etc.)
7. Approved plan of study.
8. Formal letter of admission from program director.

Suggested program

First and second year

Associate degree in medical record technology

Third year

PEG 100 (3)

BA 303 and 325 (8)

MIS 475 (4)

BUSE 455 (3)

MGMT 305 (4)

CHEM 100 (4)

BIOL 313 (4)

General education requirements (8)

Professional electives (8)

Fourth year

MRA 401, 402, 403, 404, 410, and 489 (22)

MGMT 361 (4)

ENG 488 (4)

LEGS 425 (4)

Professional elective (4)

Recommended professional electives

BUSE 321 (3)

PHIL 342 (4)

PSYC 352 (3)

PSYC 452 (4)

PSYC 456 (4)

PSYC 311 or SOC 301 (3-4)

CS 200 (2)

*This program is inactive for the 1981-82 academic year.

Medical Technology

504 Life Sciences Building, 372-0109

Professional medical technologists are involved in the detection, diagnosis, and treatment of disease. They perform tests in microbiology, biochemistry, blood banking, hematology, cytology, serology, mycology, parasitology, and nuclear medical technology. Most medical technologists work in hospitals, public health agencies, research institutions, pharmaceutical houses, or other industrial laboratories. They may become supervisors or educators.

During this course of study, a student completes courses which provide the academic background for a fourth year in a medical technology program accredited by the Council on Allied Health Education of the American Medical Association. Students spend this year of professional training attending lectures and seminars, and applying their knowledge of various disciplines in a clinical laboratory. Upon completion of the year, students receive a Bachelor of Science in Medical Technology degree and are eligible to take a certification examination administered by the Board of Registry of the American Society of Clinical Pathology, or by the National Certification Agency for Laboratory Personnel.

Even though admission into the program may occur at any time, students must apply for admission into the professional portion of the program no later than the end of the sophomore year. Admission will be given to those students who have met all announced criteria and for whom a position exists in a medical technology professional study program. Normally, this position will be in the Bowling Green State University program, which is affiliated with clinical laboratories at St. Vincent Hospital and the medical center of the Toledo Hospital. By special permission of the program director, students may be allowed to take their professional training at a hospital based program. Hospitals affiliated with the University are Children's Hospital of Akron; University Hospitals of Cleveland; Mt. Sinai Hospital, Cleveland; St. Rita's Hospital, Lima; Mansfield General Hospital; Mercy Hospital, Toledo; and St. Charles Hospital, Toledo.

During their junior year, students given alternate or conditional admission should design their course schedules to insure the pursuit of a degree in another field of study if space in a professional study program is not available. A grade point average of 2.5 or better must be maintained after the beginning of the junior year. This major also prepares students for entry into a graduate school or other laboratory professions.

Suggested program

First year

BIOL 201 and 202, or two introductory courses in BIOL approved by the program director (10)

MATH 130 (MATH 131 recommended) (5-10)

PEG 100 (3)

ENG 112 or equivalent (4-8)

CHEM 121, 122, and 123 (15); or CHEM 131, 132, and 133 (15)

General education requirements and electives (8-17)

Second year

CHEM 306 (5); or CHEM 343, 344, and 345 (15)

MEDT 301 (2)

BIOL 313 and 405 (10)

CHEM 308 and 309 (6)

General education requirements and electives (13-22)

Third year

BIOL 332 or 411 (5)

BIOL 426 and 439 (10)

PHYS 214 (5); or ET 347 and 348 (10)

CHEM 201 and 321 (10)

General education requirements and electives (15-24)

Fourth year

Professional study and seminars (48)

The following are recommended professional electives and desirable courses for general education group requirements:

PHYS 215

BIOL 350, 352, 406, 407, 408, 419, 421, 436, 443, 451, 490

PSYC 201, 411, 452, 454

CHEM 321, 445, 446, 447, 448

MIS 200; or CS 100, 101, 102

MIS 475

MGMT 305, 361

Management practices

STAT elective

PHIL elective

Technical writing

Ethics courses stressing medical problems.

Parasitology and Medical Entomology

303 Life Sciences Building, 372-2834

Graduates of this program will be prepared for broad employment in the fields of public health, particularly those areas dealing with parasitology and medical entomology. An option of this educational program is a clinical experience that will be appropriate to the employment goals of the individual student. The graduate of the program will receive a Bachelor of Science in Parasitology and Medical Entomology.

Because of the variety of options available to the student in this field, individual students, with their advisers, must design appropriate programs. Students should consult the program adviser for complete information regarding degree requirements and curricula.

Suggested program

First year

ENG 112 or equivalent (4-8)

PEG 100 (3)

BIOL 104 or 201 (5)

BIOL 101 or 203 (5)

MATH 124 and 125 (10); or MATH 131 (5)

General education requirements and electives (8-20)

Second year

BIOL 321, 322, 409 and 410 (18)

CHEM 111, 112, and 213 (12); or CHEM 121,

122, and 123 (15); or CHEM 131, 132, and 133 (15)

General education requirements and electives:

Additional course in possible secondary specialization tracks in areas such as microbiology, ecology, or animal physiology.

Third year

Courses in area of secondary specialization

BIOL 405 and 435 (10)

Electives

Fourth year

Courses in area of secondary specialization

Clinical practice (5)

BIOL 406 (5)

Electives

Physical Therapy

Lee A. Meserve, Coordinator, 503 Life Sciences Building, 372-0361 or Robert Livengood, L.P.T., Director, 140-J Health Sciences Building, Medical College of Ohio, 381-3518

The purpose of the basic physical therapy education program is to provide opportunities in which students can develop the knowledge, skills, and attitudes which will enable them to be competent entry-level clinical practitioners, to participate in clinical research, and to provide the basis for future graduate study. The physical therapist is a highly skilled practitioner who is aware of the health problems of the disabled in all age groups and in a variety of environments. This challenging profession provides a career for men and women who desire to participate with other health care providers in the restoration of maximal functional capabilities of individuals temporarily or permanently disabled by illness, disease, trauma, or congenital abnormalities. Most physical therapists work in hospitals, public health agencies, rehabilitation and extended care facilities, public schools, and other governmental agencies. During the freshman and sophomore years, students take a pre-professional program that permits them to fulfill all prerequisite courses and to attain a general educational background in communication skills, natural sciences, social and behavioral sciences and the humanities.

The proximity of the University to the Medical College of Ohio has led to this cooperative academic program. The junior and senior years are offered on the campus of the Medical College of Ohio.

Courses in the professional curriculum include the basic sciences, physical therapy theory and procedures, and applied physical sciences. An important feature of the program is the cooperative practicum and internship experiences in which all students participate. More than 30 hospitals, local health agencies, rehabilitation centers, and public schools are affiliated with the program as clinical educational facilities.

Only after accreditation by the American Physical Therapy Association are the graduates eligible to take state licensure or registry requirements in the state in which they wish to practice.

Fees for the baccalaureate physical therapy program are the same as for all other degree programs. There are, however, additional charges for uniforms and required professional liability insurance. Transportation to and from classes at the Medical College of Ohio and clinical educational facilities, and any other specific health tests required by the clinical educational facilities are the responsibility of the student.

Admission Requirements

Candidates for admission to the physical therapy professional component in the third and fourth years at the Medical College of Ohio in cooperation with the University of Toledo and Bowling Green State University must have:

1. filed the *Physical Therapy Professional Curriculum Application* prior to the deadline date of January 15 of the year the student wishes to enroll in the professional curriculum.
2. a minimum of 2.5 accumulative GPA. No S/U or PS (pass) or NC (no credit) options are permitted in required courses or prerequisites for required courses, except those graded only on that basis.
3. completed each of the following courses or their equivalent with a minimum grade of "C":

Natural Sciences

UT: Biology 211-212, 213-214, and 215-216

BGSU: Biology 201, 202, and 332

UT: Chemistry 110, 111-121, and 112-122

BGSU: Chemistry 121, 122, and 123

UT: Physics 213, 214, and 215

BGSU: Physics 214 and 216

Behavioral and Social Sciences

UT: Educational Psychology 325

BGSU: Psychology 201

UT: Sociology 101

BGSU: Sociology 101

4. completed all other general program requirements specified by Bowling Green State University.

5. provided documentation of experience in health care of community service(s).

6. completed a personal interview as stipulated by the Committee of Admissions for the professional curriculum.

7. filed a certified letter of acceptance with the program director by April 30.

The availability of clinical facilities and faculty currently limits the acceptance in the third year of only 12 students from each university. Admission to the professional component is highly competitive; therefore, completion of the admission requirements does not guarantee acceptance into the professional physical therapy program.

Suggested Program

First year (preprofessional program: 45-53 hours)

ENG 112 or equivalent (4-8)

PEG 100 (3)

SOC 101 (4)*

MATH 130 (5)
 SPCH 102 (4)
 CHEM 121, 122, and 123 (15)*
 PSYC 201 (5)*
 BIOL 201 (5)*

General education group I requirements (4-8)
 Second year (preprofessional program: 37-48 hours)

PHYS 214 and 216 (10)*
 BIOL 202 and 332 (10)*
 HED 313 (4)
 MRA 101 (2)
 MRA 300 (3)
 PHIL 342 (4)
 PSYC 270, 309 (7) or SOC 369 (4) or MATH 115 (5)

General education group requirements: Select from PHIL 319 (4), ART 101, or any music composition and/or performance courses

Third year (professional program: 54 hours)
 Human Gross Anatomy and Neuroanatomy (11)
 Pathology and Pharmacology (6)
 Physical Therapy Procedures (7)
 Principles of Massage (2)
 Neurophysiology (3)
 Therapeutic Exercise (4)
 Summer Clinical Practicum (3)
 Research Methods (3)
 Prosthetics and Orthotics (3)
 Functional Anatomy (4)
 Applied Medical Sciences (4)
 Clinical Practicums (4)

Fourth year (professional program: 55 hours)
 Human Growth and Development (4)
 Therapeutic Exercise (8)
 Cardiopulmonary Physical Therapy (4)
 Sports Trauma (3)
 Rehabilitation Techniques (3)
 Orthopaedic Physical Therapy (4)
 Electrophysiological Assessment and Treatment (3)
 Physical Therapy Trends and Management (4)
 Evaluation Principles and Techniques Applied (3)
 Physical Therapy Research Project (3)
 Independent Study (2)
 Clinical Practicums (4)
 Summer Clinical Internship (10)

This program is subject to revision and may be modified to meet student needs.

Social Work

320 Williams Hall, 372-2441

This program is designed to prepare students as general practitioners for the beginning level of professional social work practice. Built upon a liberal arts foundation, the program provides an opportunity for students to acquire a value system, gain a knowledge base, and develop a variety of intervention skills in working with people as they attempt to cope with their environments. Typically, social workers assist people facing such problems as: poverty, crime and delinquency, physical and mental handicaps and illnesses; strained family relationships; drug abuse; inadequate housing; lack of educational, recreational, and employment opportunities; and child abuse and neglect.

During the freshman and in the first quarter of the sophomore years, students take a preprofessional program that in-

cludes introductory social work courses in addition to courses in the broad, general education areas. Admission into the social work program may be made as early as the end of the first quarter of the sophomore year, and requires a formal application and screening process. Most of the social work courses are taken in the junior and senior years.

This program emphasizes student participation in area social agencies through observation, volunteer work, and supervised field instruction. The graduates of the program receive a Bachelor of Science in Social Work degree. The program is accredited by the Council on Social Work Education.

Suggested program

First year
 SOWK 110 (4)
 ENG 112 or equivalent (4-8)
 BIOL 101 or 104 (5)
 PSYC 201 (5)
 CS 100 or 101 (4-5)
 PEG 100 (3)
 SOC 101 (4)
 SPCH 102 (4)
 General education requirements
 Electives

Second year
 SOWK 220 and 227 (8)
 POLS 201 (4)
 PHIL 103 and 210 (8)
 IPCO 306 (4)
 SOC 202 (4)
 PSYC 311 OR SOC 301 (3-4)
 ECON 200 (4)
 General education requirements
 Electives

Third year
 SOWK 225, 321, 322, 325, 330, 332, and 333 (28)
 SOC 370 (4)
 SOC 361 or PSYC 307 (4)
 MGMT 305 (4)
 General education requirements
 Electives

Fourth year
 SOWK 326, 327, 423, 424, and 440 (28)
 PSYC 405 (5)
 Electives

This program is subject to revision and may be modified to meet student needs.

Speech Pathology and Audiology

338B South Hall, 372-2223

The undergraduate major in speech pathology and audiology will prepare students in the basic speech and hearing sciences, theoretical and practical aspects of therapy, as well as affording the student the opportunity for a limited amount of observation, participation, and direct clinical work under supervision. The student will also become familiar with other para-professionals' services and goals, and the interrelationships of these with speech pathology and audiology. Since this is a preprofessional program, students who wish to receive the Certificate of Clinical

Competence from the American Speech and Hearing Association are required to obtain a master's degree. The State of Ohio requires a master's degree, or its equivalent, for the licensing of a speech and hearing clinician.

Suggested program

First year
 BIOL 104 (5) recommended
 ENG 112 or equivalent (4-8)
 SOC 101 (4)
 SPCH 102 (4)
 PEG 100 (3)
 PHYS 350 or MATH (4-5)
 SOWK 110 (4)
 CDIS 223 and 226 (8)
 Electives (8 of 12 hours to fill general education group V requirements)

Second year
 EDFI 302 and 342 (8)
 ENG 380 (5)
 PSYC 311 or SOC 301 (3-4)
 PSYC 201 and 270 (9)
 CDIS 324, 328, 330, 331, and 422 (20)

Third year
 EDSE 431 (4)
 CDIS 325, 332, 333, 391, and 424 (19)
 PSYC 324 (4)
 Electives (20)

Fourth year
 EDSE 451 (4)
 PSYC 305, 309, and 405 (14)
 CDIS 426, 427, and 433 (8-10) (A 2.5 cumulative grade point average in the program core requirements is required to be eligible for enrollment in CDIS 426, clinical practicum.)
 Electives (14)

This program is subject to revision and may be modified to meet student needs.

Other programs

A program in speech and hearing therapy is offered through the College of Education. Other programs in speech are offered through the College of Arts and Sciences and its School of Speech Communication.

School of Nursing

Grace H. Chickadonz, Director, Medical College of Ohio, 381-3418
Ardith Sudduth, Coordinator, 101 Health Center, 372-0242

The School of Nursing offers the student an opportunity to become actively involved in the health field as a professional nurse with a Bachelor of Science in Nursing. The curriculum emphasizes a liberal education combined with the nursing theory and clinical practice needed to develop as an educated nurse. A graduate of the nursing program is capable of providing health services for individuals, families, and communities; eligible to take the licensing examination to become a registered nurse; and prepared for future graduate study and leadership in nursing.

The School of Nursing is accredited by the National League for Nursing and has full approval of the Ohio State Board of Nursing Education and Nurse Registration.

Fees for the nursing program are the same as for all other degree programs. Additional charges, however, are mandated for uniforms, professional liability insurance, and specific health tests. Transportation to the classes of the Medical College of Ohio in Toledo and to the clinical placements is the responsibility of the student.

Admission Requirements

Admission to the preprofessional nursing program is through the Office of Admissions of the University. Successful completion of the preprofessional requirements is a prerequisite for admission to the professional nursing program. The number of students accepted into the nursing program is limited by the availability of clinical facilities and faculty. Admission to the professional program is competitive and based on the following:

1. Completion of:
ENG 111 and 112
MATH 110 or appropriate placement
CHEM 111, 112, and 213
BIOL 201
PSYC 201
2. Accumulative grade point average in the preprofessional program. Special emphasis is placed on high achievement in the science courses.
3. Completion of 45 quarter hours of credit.
4. SOC 101 is highly recommended.

Bachelor of Science in Nursing

A candidate for the Bachelor of Science in Nursing degree must earn a minimum of 185 hours of credit (rather than 183 hours) either in residence, by advanced standing, or transfer credits, in addition to the requirements listed on page 7.

A minor is not required for graduation.

General Education Group Requirements

Group I: Communication

Each student is required to complete ENG 112 or demonstrate a proficiency in written expression equivalent to that attained by students who have completed the course. A penalty is imposed if ENG 112 is not completed within the first 90 hours. See page 8.

Group II: Foreign Language or Cultural Experience

No requirement

Group III: Mathematics and Natural Science

Each student is required to complete BIOL 201, CHEM 111, 112, and 213; and MATH 110 or demonstrate equivalent proficiency by a placement test.

Group IV: Social Sciences

Each student is required to complete PSYC 201, 270, and 405; SOC 101; two courses from ECON, GEOG, HIST, or POLS.

Group V: Arts and Humanities

Each student is required to complete one course in literature (American, English or foreign) and four courses in one or more of the following areas: ART, literature, foreign languages; music; PHIL; POPC; SPCH; or THEA. A list of courses approved for the group V requirements is available from the School of Nursing Office, 102 Health Center.

Additional required credit hours exclusive of major include: HOEC 207; EDFI 342; three hours of PEG 100; and electives.

The program requires a minimum of 85 hours. These include 11 nursing courses and 6 human biological science courses. A minimum grade of "C" is required in all nursing courses in the professional program.

Suggested program

First year (preprofessional program: 47 hours)
CHEM 111, 112, and 213 (12)

MATH 110 (5)
SOC 101 (4)
PEG 100 (3)
ENG 112 or equivalent (4-8)
BIOL 201 (5)
PSYC 201 (5)

General education group III and group V requirements (9)

Second year (professional program: 48 hours)
NURS 200, 201, 202, 250, 251, and 252 (26)

EDFI 342 (4)
HOEC 207 (4)

General education group III and group V requirements (14)

Third year (48 hours)

General education group III and group IV requirements, or electives (10)

PSYC 270 and 405 (8)

NURS 300, 301, 302, 350, 351, and 352 (30)

Fourth year (42 hours)

NURS 400, 401, 402, 411, and 412 (31)

Electives (11)

The above is a suggested program that may be modified according to individual needs and capabilities.

Degree Program for the Registered Nurse

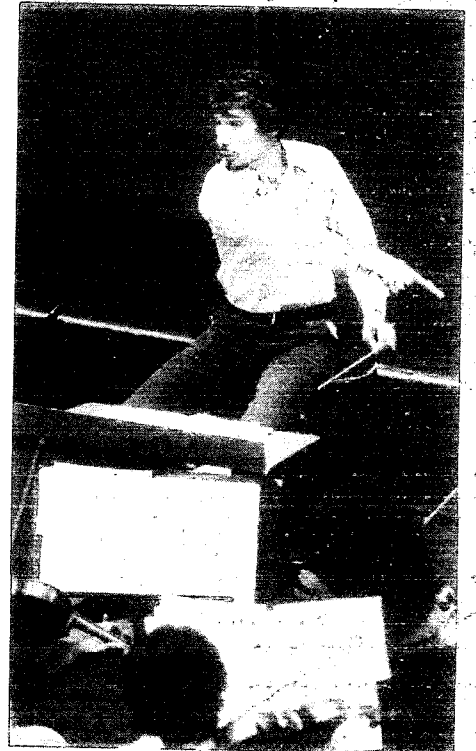
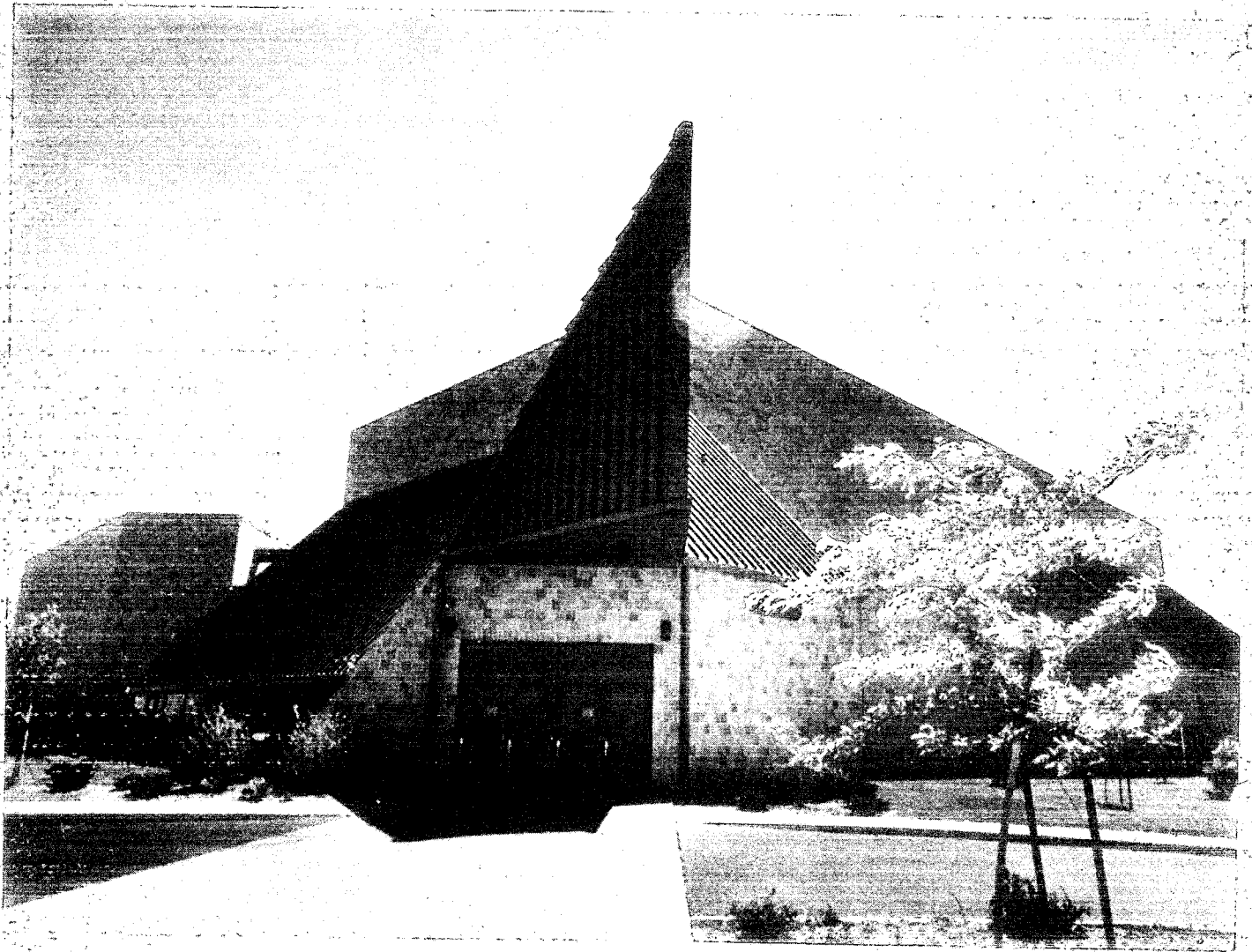
The School of Nursing also offers an opportunity for graduates of associate degree and diploma programs to earn a baccalaureate degree with a major in nursing.

Prospective candidates must:

1. be a graduate of a state-approved nursing program;
 2. be licensed to practice as a registered nurse in a state or U.S. territory;
 3. have completed 45 credit hours with a minimum grade point average of 2.5, including courses in chemistry and biology.
- Students from a diploma school of nursing take examinations to earn 45 hours of nursing credit and determine placement in the RN sequence (upper division nursing). Students from associate degree nursing programs also take examinations for placement purposes into the RN sequence.

Two nursing courses, NURS 310 and 311, and two physiology courses (taken through concurrent registration at the University of Toledo) are required at the junior level. At the senior level three clinical nursing courses and two nursing research courses are required.

A minimum of 185 hours are required in the program.



● College of Musical Arts

Kenneth A. Wendrich, Dean, 1051 Musical Arts, 372-2181

Richard Kennell, Assistant Dean, 1047 Musical Arts, 372-2181

Department of Composition and History, JaFran Jones, Chair, 1043 Musical Arts, 372-2181

Department of Music Education, Patrick Tallarico, Chair, 1041 Musical Arts, 372-2181

Department of Performance Studies, Rex Eikum, Chair, 1039 Musical Arts, 372-2181

Objectives

The primary objectives of the College of Musical Arts are to educate talented musicians for professional careers in teaching, performance, composition, and musical scholarship; and to serve the University community by contributing to the general education program. The college also strives through its Division of Public Mission to enhance the cultural climate of the entire campus and community and to serve as a cultural resource for northwest Ohio.

Accreditation

Since 1947, the College of Musical Arts has been accredited by the National Association of Schools of Music.

Entrance Examinations

Each major or minor is required to audition in the student's major performance area and to take a written placement test. Depending on the outcome of the audition, a student is accepted, admitted on probation, or rejected. Nonmusic students wishing to enroll in applied music courses are also required to audition in their chosen performance area.

Music Organizations

Membership in music organizations is open to all students. Selection is made on the basis of tryouts. These organizations include the A Cappella Choir, Men's Chorus, Women's Chorus, and Collegiate Chorale; Concert, Marching, and Symphonic Bands; Symphony and Chamber Orchestras; and vocal and instrumental ensembles, including Collegium Musicum and Jazz Lab Band. See the *Course Descriptions* for a full listing of ensembles.

Bachelor of Music

The College of Musical Arts offers curricula leading to the Bachelor of Music degree in the following areas:

Music composition and theory

Music education

Choral option—keyboard

Choral option—voice

Classroom option—keyboard

Classroom option—voice

Instrumental option—keyboard

Instrumental option—solo instrument

Musical theatre option

Music history and literature

Performance studies

Church music

Instrumental option

Brass

Harp

Percussion

String

Woodwind

Keyboard option

Harpichord

Organ

Piano accompanying

Piano literature

Piano pedagogy

Musical theatre

Voice

Jazz (minor only)

This degree provides undergraduate preparation for a professional career and a background for graduate study. To insure not only technical skills but a broad understanding of the social and cultural environment in which the art of music is practiced, the programs outlined for each concentration stress breadth as well as depth. See course descriptions for specific courses available in these programs.

General Requirements for the degree

A candidate for a degree in the College of Musical Arts must fulfill the general requirements listed on page 7 and meet the requirements for the degree listed in the following pages and in the latest lists of requirements available from each department. Certain requirements may be added, deleted, or modified, and responsibility resides with the student for obtaining the most recent requirements from the respective departments:

Recital attendance and participation

Students are required to attend biweekly seminars according to area of performance study. Further, all freshman, sophomore, and junior music major students (and minors during terms in which they are engaged in performance study) will be required to attend 10 musical recitals or concerts on campus each term, exclusive of those in which the student is a participant. Attendance at the biweekly recitals at 2:30 p.m. on Thursday may be counted toward the minimum of 10 per term. To monitor this attendance, students majoring in music must register for and successfully complete nine hours of MUS 099.

Five-year program

A five-year performance curriculum leading to a Master of Music degree and certification for teaching in the public schools is available to gifted scholar-musicians. Students interested in this option should contact the director of graduate studies in music.

Double major

A student interested in a double major should consult with the chairs of the departments involved for information pertaining to the requirements. Double majors must be approved by the chairs of the appropriate departments. Such programs ordinarily require more than 12 quarters to complete.

S/U grading

No required music courses may be taken for S/U grades. Group and professional requirements outside of music, however, may be taken for S/U credit. Elective hours within and outside of music may also be taken on an S/U basis provided that the general grading policies of the University are maintained.

Aural skills

In order to acquire those hearing and sight-singing skills which are basic to any career in music, all music majors are required to pass level VI of aural skills prior to graduation. Since this course is competency based, students are encouraged to progress faster than the "normal" rate of one level per quarter. This may be accomplished by passing proficiency exam(s) in the various level(s). See music composition-history chair for information regarding receipt of credit for levels skipped.

Course prerequisites

For all music majors, completion of two 100-level MUCH modules with passing grades plus completion of MUCH 143 with a grade of "C" or better are prerequisite to enrollment in 200-level MUCH modules. Certain upper division courses have specific prerequisites from within the modular program. See course descriptions for details.

Elements of Music I

MUCH 110 (preview to music) does not fulfill degree requirements (or electives) for music majors and minors.

Degree Programs**Music Composition and Theory**

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Admittance

Students already majoring in other areas of music who have developed a strong interest in music composition or theory and have demonstrated a strong aptitude in one of these areas may apply to the chair of the Music Composition-History Department for acceptance as a major in music composition or music theory. It is also possible to add music composition or music theory to an original major for a double major. Normally this is done by the end of the sophomore year. An application for this double major must be approved by the faculty of the department.

Approval for Continuation

The progress of each continuing major in music composition or music theory will be reviewed quarterly by the faculty of the Music Composition-History Department before the student is admitted to the next quarter's work. *Provisional* students have one year to remove their provisional status.

Each candidate for senior status must submit at least one score or tape of an original composition or arrangement, or one original paper on some aspect of music theory.

Advising

Upon acceptance as a music composition or music theory major, it is recommended that each student meet with the chair of the Music Composition-History Department to develop a program of courses that will include the remainder of the group and music requirements.

Collegium Musicum

See description under music history and literature. Participation in the New Music Ensemble by music composition and music theory majors is strongly encouraged. Renaissance, Baroque, and Indonesian Gamelan ensembles also provide a training ground for performance practice.

Piano

Functional piano proficiency tests I and II are required.

Jazz Minor

Course work is available for students interested in specializing in jazz. See the department chair for course offerings and the planning of a curriculum around individual needs.

Approval for Graduation

Candidates for the bachelor's degree in music composition are required to present half-recitals or their equivalent, such as music for a stage play or film of substantial length. Candidates for the bachelor's degree in music theory are required to submit papers which make contributions to the field of music theory through research or analysis.

Degree Requirements

The Bachelor of Music degree in music composition and theory requires 200 total credits, distributed as follows:

1. 63 credit hours in general studies;
2. 74 credit hours in basic musicianship, including performance;
3. 60 credit hours in advanced courses in music theory, literature, and composition;
4. 3 credit hours in PEG 100.

For specific information, refer to the chair of the Department of Music Composition and History.

General Education Minimum**Group I: Communication**

Each student must complete at least one course in written communication such as ENG 112 or the equivalent. A penalty is imposed if ENG 112 is not completed by the junior year. See page 8. Total: 4 hours.

Group II: Foreign Language or Cultural Experience

Each student must complete at least three quarters of one language; either French or German is recommended. For students without previous foreign language training, election of GERM-100 is recommended. If proficiency equivalent to 101-102-103 in either language can be established with the appropriate language department, then courses beyond this level may be taken. One quarter in a computer science programming language course may be substituted for one quarter of a foreign language beyond the first year of earned credits.

Students must also complete 12 hours of a second language or substitute music courses not required in the major curriculum with the approval of the chair of music composition and history. Total: 24 hours.

Group III: Mathematics and Natural Sciences

Students must complete at least one course in science or mathematics. PHYS 350 is recommended. Total: 4-5 hours.

Group IV: Social Sciences

Students must complete at least one course selected from: anthropology, ECON, GEOG, HIST, POLS, PSYC, or SOC. Total: 4-5 hours.

Group V: Arts and Humanities

Students must complete at least one course in fine arts or PHIL and one course in ENG literature. Total: 7-8 hours.

In addition, students must select a sufficient number of courses from any of the five groups in consultation with the chair to meet the minimum total group requirements of 63 hours.

Suggested Program

First year (51 hours)
 MUCH 111, 132, 141, 142, 143, and 232 (16)
 PEG 100 (3)
 Applied music or vocal/instrumental classes (3)
 Group I requirements (4)
 MUCH 134 (or MUCH 334 third year) (4)
 CS 101 (5)
 Large or small ensembles
 MUED 150 and 151, or 152 (2)
 Group III requirements (4)
 Group V requirements (7)
Second year (51 hours)
 MUCH 235, 241, 242, 243, 332, and 333 (18)
 Applied music or vocal/instrumental classes (3)
 Foreign language (12)
 Group electives (9)
 Group IV requirements (4)
 Ensembles (3)
 MUED 250 and 251 (2)
Third year (49 hours)
 MUCH 231, 334, and H341 (10)
 MUCH 308 and 309 (4)
 MUSP 305, 306, and 307 (6)
 MUCH 315 and 320 (6)
 MUCH 316 (9)
 Ensembles (2)
 Group electives (10)
 MUCH electives (2)

Fourth year (49 hours)

MUCH 316 (9)
 MUCH 424, 425, and 426 (9) or MUCH 427, 428,
 and 429 (9)
 Group electives (8)
 MUCH 410 (9)
 Music history and literature electives (8)
 MUCH 403, 404, and 405 (6)

The above is a sample program which may be modified with the approval of the chair of music composition-history according to the student's individual needs and capabilities.

Music Education

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The music education curriculum is designed to prepare students to become elementary and secondary school music teachers. The department believes that this can be accomplished by providing for the student:

1. a program of general studies in the sciences and humanities;
2. advanced study in music performance and comprehensive musicianship; and
3. a program of professional training including field experiences, methods courses, and laboratory training.

Degree Programs in Music Education

All Bachelor of Music degree programs in music education lead to provisional special certification for teaching elementary and secondary school music. Four degree options are offered in music education: a choral, an instrumental, a classroom music, and a musical theatre major. The choral major is intended for those who wish to teach junior and senior high school choral ensembles; the instrumental major for those who wish to work with bands and/or orchestras at elementary and secondary levels; the classroom major for those who are interested in teaching elementary and junior high school general music; and the musical theatre major for those who are interested in teaching choral music at the secondary level and in producing musical shows. For complete degree requirements for the musical theatre option, refer to "music education option requirements."

In order to graduate in four years, a student must take approximately 50 hours of required course work each year. Music education majors usually take between 16 and 18 credit hours per quarter. The total number of hours required are distributed over the areas of general and professional study which appear below and vary slightly according to the specific option.

1. 61-63 hours of credit in general studies;
2. 16 hours of credit in professional education;
3. 90-91 hours of credit in music core courses including music theory, music history, performance, conducting, ensembles, methods courses, and student teaching;

4. 27-31 hours of credit in the music education option;

5. 3-5 hours of credit in PEG.

Selecting a Degree Option

All freshman music education majors are enrolled in a general course of study for the first academic year. Students are required to select a degree option during that year.

Approval of an option is initially determined on the basis of the student's academic standing and performance achievement.

1. Academic standing is determined on the basis of cumulative grade point hours and quality points, and standing in the basic music courses.

2. Performance proficiency is measured through applied juries at the end of spring quarter. Third quarter performance juries are used to determine a student's performance proficiency for choosing a specialty area, and to determine whether performance progress has been satisfactory. Only students whose performance status is satisfactory will be granted an area of speciality. Unsatisfactory performance results in either the student's being placed on probation or being dropped from the program. Probation is granted for only one quarter during which time satisfactory achievement must be demonstrated or dismissal from the program will ensue.

3. To remain in a degree option, students must exhibit teaching competency as judged by the music education faculty.

Students who decide to change from one option to another must first consult with the department chair. In addition, they may be required to meet additional professional and performance requirements. Any student changing an option must complete at least 15 credit hours in one performance area.

General Education Group Requirements

To ensure a general education background in addition to the teaching major, a student is required to complete 61-63 hours of credit from the five areas of knowledge indicated below.

Group I: Communication

Each student must complete ENG 112 and SPCH 102. A student is considered to have demonstrated acceptable performance in English skills if a grade of "C" or better is received in ENG 112. A student who receives a "D" in ENG 112 must repeat the course until a grade of "C" is earned. A penalty is imposed if ENG 112 is not passed before the junior year. See page 8. Furthermore, the student is required to present evidence of freedom from speech defects as certified by the Department of Speech. Minimum total: 8 hours.

Group II: Foreign Language or Cultural Experience

(See requirements listed under Group V.)

Group III: Mathematics and Natural Science

Each student must complete at least 8 hours of credit in course work selected from BIOL, CHEM, PHYS, GEOL, MATH, or MIS. MATH 241 and 242 are applicable only for an elementary education major.

Group IV: Social Sciences

Each student must complete PSYC 201 and at least 3 hours of credit from ECON, GEOG, HIST, POLS, PSYC, anthropology, or SOC.

Group V: Arts and Humanities

Each student is required to complete one course in English literature (4 hours) and 9 hours of credit in one or more of the following: ART, speech (including RTVF and THEA), literature, modern dance, PHIL, or foreign language. Group V requirements may not include music courses.

Group V Requirements for the Classroom Music Major

Students pursuing the classroom music option are required to take 12 hours in related art disciplines. These include: ART 101; six hours from ART 145, 146, and 147; THEA 347 or 447; and three hours of an applied art course or a 400-level art history course. Twenty-three hours may then be elected from one or more of the groups, or from those disciplines listed above. Required courses in the music education major may not be used. At least eight of the 23 hours must be nonmusic courses.

Group V Requirements for the Music Theatre Major

Students pursuing the music theater option must complete the following courses in theatre and related fields: THEA 202, 241, 341, 352, and 353 (19); and THEA 243, 343, or 349 (3-4). Students must then elect 10-11 hours from one or more of the groups or from those disciplines listed above. Required courses in the music education major must not be used.

Musical theater majors must also complete five hours of recreation and dance from among ballet, ballroom dance, square dance, folk dance, jazz dance, modern dance, and tap dance (3); and RED 226 (2).

Total Group Requirements

Each student in music education must meet the total minimum requirements (37 hours) for groups I, II, III, IV, V. The remaining 24-26 hours may be elected from one or more of the groups, or from any of the following disciplines: JOUR, MKT, MGMT, BUSE, international business, LEGS, FIN, INS, L&EM, HOEC, POPC, technology, health, physical education, and recreation, music, and education. Required courses in the music education major may not be used. At least eight of the 24-26 hours must be nonmusic courses.

Professional Education Requirements

To ensure adequate professional preparation for a career in teaching, the following courses are required: EDFI 302, 402, and 408; and EDAS 409. (The prerequisite for EDFI 302 is PSYC 201.)

Music Core Requirements

All music education majors are required to complete the following core courses. Minimum total: 90-91 hours.

Music history and theory

Music modules MUCH 111, 132, 231, 232, 332, 333, 134 or 334; and 233 or 320 or 125; aural skills I-VI (MUCH 142, 143, 241, 242, and 243. Minimum total: 41-42 hours.

Conducting

MUSP 305-306-307 required in the junior year before student teaching. Minimum total: 6 hours.

Performance

15 hours minimum in one performance medium.

Ensembles

7 hours of large ensembles; 2 hours of small ensembles. Total: 9 hours.

Music methods

MUED 240 and 340*. Total: 17 hours.

Student teaching

MUED 331. Eligibility requirements for student teaching are specified under "student teaching" in this section of the *Undergraduate Catalog*. Total: 15 hours.

Music Education Options

In addition to the core requirements (90-91 hours), each major in music education must complete the requirements of one of the following options.

Choral option (keyboard emphasis)*

MUED 359, MUSP 311; 5 hours of instrument classes (see "additional requirements—instrument classes."); 5 hours of class or studio voice; 2 hours of class piano and functional proficiencies I, II, and MUSP 264 (2). Total minimum: 19 hours.

Choral option (vocal emphasis)*

MUED 359; MUSP 311; 5 hours of instrument classes (see "additional requirements—instrument classes."); 6 hours of class piano and functional proficiencies I, II, and III; 2 hours of studio piano. Total: 15-18 hours.

Classroom option (keyboard emphasis)*

MUED 451; 5 hours of instrument classes; 5 hours of class or studio voice; 2 hours of class piano and functional proficiencies I, IV and MUSP 264 (2). Total: 18 hours.

Classroom option (vocal emphasis)*

MUED 451; 5 hours of instrument classes; 2 hours of studio piano, 3-6 hours of class piano and functional proficiencies I, III, and IV. Total: 14-17 hours.

Instrumental option (keyboard emphasis)*

10 hours of instrument classes; 2 hours of class or studio voice; 2 hours of class piano and functional proficiencies I, II, and MUSP 264 (2). Total: 16 hours.

Instrumental option (solo instrument emphasis in woodwind, brass, string, or percussion)*

10 hours of instrument classes; 2 hours of class or studio voice; 3-6 hours of class piano and functional proficiencies I, II, and III. Total 15-18 hours.

Musical theatre option (vocal emphasis)*

MUED 359, MUSP 311; 5 hours of instrument classes; 3-6 hours of class piano and functional proficiencies I, II, and III; 2 hours of studio piano. Total: 15-18 hours.

Musical theatre option (keyboard emphasis)*

MUED 359; MUSP 311; 5 hours of instrument classes; 5 hours of class or studio voice; 2 hours of class piano and functional proficiencies I, II, III, and MUSP 264 (2). Total: 19 hours.

Performance requirements—musical theatre option

Each student must participate in one University musical (theatre program and College of Musical Arts) and three theatrical productions well distributed over the following: opera, opera workshop, educational theatre, community theatre, professional theatre, and dance theatre. Each production must be approved by the chair of music education.

Admittance to the musical theatre option

At the end of the first year of study, a student must audition for *probationary acceptance* into the musical theatre option before a committee of representatives from the University's dance program, theatre program, and College of Musical Arts.

At the end of the second year of study, a student must audition for *formal acceptance* into the musical theatre option before a committee of representatives from the University's dance program, theatre program, and College of Musical Arts.

Performance Requirements

In addition to specific course requirements, music education majors must meet the following performance-oriented requirements.

Performance jury examinations

Each student in music education must have a major performance emphasis and must pass an examination in that area at jury examination times. Jury examinations are scheduled at selected times and are posted for each academic year. Failure to pass a performance jury examination results in probationary status for one quarter

at the end of which significant improvement must be demonstrated or performance instruction will be terminated and the student will be dismissed from the program. Students wishing to change their area of performance emphasis must do so with the approval of the chair of music education and the appropriate performance faculty.

Recital

A half recital (or its equivalent) is required of all music education majors. This is usually given in the senior year before or after the quarter of student teaching; *it may not be given while student teaching*. Permission to perform a recital is given by the appropriate performance faculty and is based upon the student's performance at a recital jury examination. Students desiring to meet this requirement through equivalent means must receive approval from the chair of music education and the appropriate performance faculty. Students are encouraged to give a full recital; however, a full recital may only be given with the consent of the performance area faculty.

Functional Keyboard Requirements

Music education majors are required to pass three of the functional proficiency examinations listed below. Instrumental majors must pass proficiencies I, II, and II; choral majors proficiencies I, II, and III; and classroom majors, proficiencies I, III, and IV. Piano requirements for all degree programs cannot be met simply by taking piano for a specified number of credit hours. The following skills are required for each proficiency examination:

Proficiency I: scales, basic chord progressions, chording melodies, and sight reading

Proficiency II: harmonization and score reading

Proficiency III: accompanying

Proficiency IV: harmonization, improvisation, and transposition

Proficiency I is a freshman-level requirement; proficiencies II and IV are sophomore requirements, and proficiency III a junior requirement.

All entering freshmen are auditioned on piano and placed according to their keyboard skills. Students with no keyboard background are placed in the introductory class piano sequence of MUED 150, 151, and 152. Students with some keyboard experience are placed in either MUED 151 or 152 depending upon their level of proficiency. Keyboard emphasis students are placed in MUED 154 in lieu of taking MUED 150-152 and take MUSP 264 in lieu of Proficiency III.

All freshmen are expected to pass functional proficiency I by the end of the third quarter. Sophomore- and junior-level piano course requirements are unique to

*MUED 340 consists of two major methods components: general music K-8 and the student's major option area of emphasis. Specific options will be offered only during certain quarters.

each option in music education. They are specified in the *Music Education Handbook* and are designed to prepare students for the second, third, and fourth functional proficiency examinations.

Any of these proficiency examinations may be passed ahead of schedule. *Freshman and sophomore proficiencies must be completed prior to student teaching.* Students who have not passed functional proficiency I and II (or IV) will not be allowed to student teach. Because of the time required to place students in student teaching assignments, there must be at least one full quarter between the time the final proficiency is passed and the quarter of student teaching. Summer session is considered equivalent to one quarter. Proficiency examinations are scheduled at the mid-term and end of each quarter.

Certain piano classes must be passed with a grade of "C" or better. These are indicated in the course descriptions. Additional information on all functional piano requirements is available from the chair of music education. Students are responsible for knowing and meeting all proficiency requirements.

Additional Requirements

Academic minor

Ordinarily students pursuing a degree in music education do not carry an academic minor; however, a minor can be pursued provided the student is willing to take additional credits beyond the minimum required for graduation.

Added course requirements

On the basis of the placement examination students may be required to take additional courses besides those specified in the music core and music education option requirements. Students will be notified of such requirements before the beginning of their freshman year.

Field experiences

Field-based experiences are an essential part of professional teacher preparation. In compliance with state certification requirements, students will be required to participate in such experiences as a part of certain music education courses.

Instrument classes

Music education majors pursuing the instrumental option are required to take the following ten instrument classes: MUED 120, 130, 140, 180, 135, 136, 143, 145, 146, and 186. (It is strongly recommended that MUED 120, 130, 140, and 180 be taken initially, preferably during the freshman/sophomore years.) Choral, classroom, and theatre majors are required to take the following 5 instrument classes: MUED 120, 130, 140, 180, and 195. The following instrument classes are available as highly recommended electives: MUED 190 (Harp); MUED 125 (Percussion); MUED 147 (Bassoon reed class).

Conducting requirements

All music education majors must pass third quarter conducting with at least a grade of "C". Those students receiving a grade of "D" or less will be required to repeat MUSP 307 (conducting) and to achieve better than average work before being allowed to student teach.

Methods requirements

Music education majors must pass all required methods courses (MUED 240, 340, 451) with at least a grade of "C". Those students receiving a grade of "D" or less will be required to repeat the course(s) in question and to achieve better than average work before being allowed to student teach.

Large ensembles

Music education majors are encouraged to participate in large ensembles each quarter except the quarter they student teach. Instrumental majors must acquire seven hours of large ensemble credit exclusive of marching band. Marching band credit may apply toward elective hours. Choral and classroom majors must acquire seven hours of large ensemble credit exclusive of men's and women's chorus. Credit for men's and women's chorus may apply toward elective hours.

Student teaching

The requirements for student teaching in music are established by the State of Ohio, the University, and the Department of Music Education. To be eligible for an assignment in student teaching the student must meet the general requirements of the College of Education and those prerequisites established by the Department of Music Education.

Departmental prerequisites

Music requirements for student teaching include the successful completion (with a grade of "C" or better) of MUED 240 and 340; MUSP 307; any other required methods course(s); and the required functional proficiency examinations. In addition, instrumental majors should attempt to complete the 10-hour instrument class component prior to student teaching.

Registration

Each student teacher must register in two places: (a) with the University Office of Student Teaching in the College of Education; and (b) with the coordinator of student teaching in the College of Musical Arts.

Speech and hearing test

Prospective teachers must also take speech and hearing tests so that they may avail themselves of appropriate corrective services if necessary.

Transportation and Housing

Students must provide their own transportation to assigned schools. Students without transportation are expected to live in the assigned community. Requests for stations close to the campus because of apartment leases, etc., may not be honored.

Station assignment

Students will be assigned to teaching stations and supervisors at the discretion of the coordinator of student teaching. Requested stations or supervisors cannot be guaranteed.

Preteaching interview

Any school system has the right to interview a prospective student teacher. If the student is not accepted, the coordinator reserves the right to designate a reassignment. If necessary, the coordinator may request that the student seek an interview with school authorities.

Radius

The radius for student teacher placement is not more than 75 miles from campus.

Withdrawal from student teaching

Once an assignment has been accepted by a school system, a student teacher may not withdraw except in cases of emergency (e.g., ill health, a death in the family).

Changing quarter of teaching

Students requesting to change their assigned quarter of student teaching may have to wait one or more quarters if no opening in the quarter requested exists.

Extended student teaching

If a student does not successfully meet the performance objectives and competencies outlined by the Office of Student Teaching and the Department of Music Education during the quarter of student teaching, the student may be required to do extended student teaching. A student doing unusually ineffective teaching in any of the competency areas may be required to pursue further academic study in that area(s) before being allowed to do extended student teaching.

Time requirement

All students must complete the full-quarter time requirement for student teaching.

Written requirements

Student teachers must complete all written requirements connected with their final evaluations or receive an incomplete for the quarter.

On-campus activities

For a student to be effective, total commitment to teaching is necessary. Students may not take an academic course, present recitals, perform in ensembles, or take private lessons during student teaching except with the consent of the chair of music education.

Graduate students

Graduate students seeking teaching certification must meet all undergraduate student teaching requirements.

Summer student teaching

Student teaching during summer session terms is not permitted.

Music History and Literature

1043 Musical Arts Center, 372-2181

Admittance

Students already majoring in other areas of music who have developed a strong interest in music history and literature and have demonstrated a high standard of academic achievement may apply to the chair of the Music Composition-History Department for acceptance as a major in music history and literature. Normally this is done at the end of the freshman or sophomore year. The application will be reviewed by the faculty of the department for acceptance or rejection.

Approval for Continuation

The progress of each continuing major in music history and literature will be reviewed annually by the faculty of the Music Composition-History Department before the student is admitted to the next year's work.

Advising

It is recommended that upon acceptance as a music history-literature major, each student meet with the chair of the Music Composition-History Department to develop a program of courses to fulfill the remainder of the group and music requirements.

Collegium Musicum

The department maintains a collegium musicum as a training ground for performance practice and showcase for music not usually performed by other traditional music ensembles. Ensemble credit is available in: Renaissance Ensemble, Baroque Ensemble, New Music Ensemble, and Indonesian Gamelan. Participation in these ensembles by music history-literature majors beyond the required six hours is strongly encouraged.

Piano

Functional piano proficiency tests I and II are required.

Jazz Minor

Course work is available for students interested in specializing in jazz. If interested in pursuing this minor, students should see the department chair for course offerings and the planning of a curriculum.

Approval for Graduation

Music history and literature majors are expected to meet standards acceptable to the music composition-history faculty in performance and in scholarship as evidenced in MUCH 406.

Degree Requirements

The Bachelor of Music degree in music history and literature requires 188 total credits, distributed as follows:

1. 70 credit hours in general studies;
2. 92 credit hours in basic musicianship, including theory and performance;
3. 23 credit hours in advanced courses in music history and literature;
4. 3 credit hours in PEG 100.

For specifics refer to the chair of the Department of Music Composition-History.

General Education Group Requirements

Group I: Communication

Each student must complete at least one course in written communication such as ENG 112 or the equivalent and one additional course in ENG composition or ENG literature. A penalty is imposed if ENG 112 is not completed by the junior year. See page 8. Total: 8 hours.

Group II: Foreign Language or Cultural Experience

Each student must complete at least three quarters of one language (either French or German is recommended) and at least two quarters of another language. For students without previous foreign language training, election of GERM 100 is recommended. If proficiency equivalent to 101-102-103 in the first language or 101-102 in the second language can be established with the appropriate language department, then courses beyond this level may be taken. Total: 20 hours.

Group III: Mathematics and Natural Science

Each student must complete at least one course in science or mathematics. Computer science or acoustics is recommended. Total: 4 hours.

Group IV: Social Sciences

Each student must complete at least one course selected from: anthropology, ECON, GEOG, HIST, POLS, PSYC, and SOC. Total: 4 hours.

Group V: Arts and Humanities

Each student must complete one course in PHIL, at least one course in fine arts, and one course in ENG literature in addition to that required in Group I. Total: 11-12 hours. In addition, each student must elect a sufficient number of courses selected from any of the five groups in consultation with the chair to meet the minimum total group requirements of 70 hours.

Suggested Program

First year (48 hours)
 MUCH 111, 132, 141, 142, 143, and 232 (16)
 MUED 150, 151, and 152 (3)
 MUCH 134 (or MUCH 334 third year) (4)
 Applied music (3)
 Large or small ensemble (3)
 Group I requirements (4)
 Group III requirements (4)
 Group V requirements (8)
 PEG 100 (3)

Second year (48 hours)
 MUCH 235, 241, 242, 243, 332, and 333 (18)
 MUED 250 and 251 (2)
 Large or small ensemble (3)
 Group IV requirements (4)
 Group II requirements (12)
 Group electives (9)

Third year (44 hours)
 MUCH 315 or 320 (3)
 MUCH 231, 334, and H341 (10)
 Applied music (3)
 MUSP 305 and 306 (4)
 Group II requirements (8)
 Collegium Musicum (3)
 Music history and literature electives (7)
 Group electives (6)

Fourth year (48 hours)
 MUCH 308, 309, and 407 (7)
 MUCH 406 (8)
 Music history and literature electives (6)
 Group V requirements (7)
 Collegium Musicum (3)
 Group electives (8)
 Music theory electives (9)

The above is a sample program to be modified according to individual needs and capabilities with the approval of the chair of music history-composition.

Performance Studies

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A student is accepted for the Bachelor of Music in performance studies by audition before the area faculty. The acceptance audition may be held at the time of the initial audition and placement examinations or during the course of degree study. It is highly recommended that the acceptance audition take place during the freshman year. Acceptance later than the freshman year may necessitate studies beyond the fourth year to meet repertoire and performance area standards.

Upon acceptance the student, in counsel with an adviser, develops a course of study based on degree requirements and the student's needs.

All performance studies majors are expected to participate in appropriate ensemble experiences each quarter of registration: i.e., strings in orchestra; winds, brass, and percussion in band or orchestra; voice in choral ensembles or opera workshop; piano in appropriate accompanying assignments.

Juries

Each student in performance studies must have an area of emphasis (instrumental, keyboard, or vocal option) and must pass an examination in that option at jury times. Juries occur at selected times and are posted for each academic year. Failure to meet expected standards in a jury results in probationary status for one quarter at the end of which significant improvement must be demonstrated or the student will be dismissed from the performance studies degree program. If a student wishes to change an area of emphasis or degree program, it must be with the approval of the chair of performance studies and the appropriate faculty.

Recital

Full recital (or its equivalent) is required of performance studies majors. This is usually given in the senior year. Permission to perform a recital is given by the appropriate performance studies faculty and is based upon the student's performance at a recital jury.

A student must be registered for applied study in the quarter when the recital is presented.

General Education Group Requirements

Group I: Communication

Each student must complete ENG 112 or the equivalent. Total: 4 hours.

Group II: Foreign Language or Cultural Experience

For voice majors, the freshman minimum sequence is FREN 101, 102, 103; GERM 101, 102, 103. See also Group V.

Group III: Mathematics and Natural Science

Each student must complete at least one course in science or MATH. PHYS 350 is recommended. Total: 4-5 hours.

Group IV: Social Sciences

Each student must complete at least one course selected from: ECON, GEOG, POLS, HIST, SOC, PSYC, or anthropology. Total: 4-5 hours.

Group V: Arts and Humanities

Each student must complete the music history sequence (MUCH, Non-western music), one course in ENG literature, and at least one course in fine arts (excluding music), speech/theatre, PHIL, or foreign language. Total: 12 hours.

Total requirements

In addition, each student must complete 3 hours of PEG 100 and elect a sufficient number of courses from the above groups (or courses approved by the chair of performance studies) to total 55 hours.

A total of 10 hours in music courses not required for the degree may apply to Group II or V.

More than the 183 total hours minimum may be required for specific performance studies degree options.

Performance Studies Options

Church music

Instrumental

Brass
Harp
Percussion
String
Woodwind

Keyboard

Harpsichord
Organ
Piano Accompanying
Piano Literature
Piano Pedagogy

Musical theatre

Voice

Church Music Option

Before the end of the freshman year each candidate for the degree of Bachelor of Music with a major in church music should meet with an adviser to develop a course of study which will satisfy the group and music requirements in this program. Each student is expected to participate in the music program of a church of his or her choice and to give a senior recital.

General Education Group Requirements

Group I: Communication

Each student must complete ENG 112 or the equivalent. Total: 4 hours.

Group II: Foreign Language or Cultural Experience

Each student must complete FREN 101, 102, and 103; and GERM 101, 102, and 103, unless proficiency can be demonstrated. Total: 24 hours.

Group III: Mathematics and Natural Science

Each student must complete at least one course in science or MATH. PHYS 350 is recommended. Total: 4 hours.

Group IV: Social Sciences

Each student must complete at least one course selected from: ECON, GEOG, POLS, HIST, and SOC. HIST 151 is recommended. Total: 4 hours.

Group V: Arts and Humanities

Each student must complete one course in ENG literature (ENG 306 is recommended), MUCH Non-western, and fine arts. Total: 12 hours.

Total group requirements

In addition, each student must complete a sufficient number of courses from any of the four groups to meet the total group requirement of 67 hours.

Suggested program (186 hours)

First year (46 hours)
MUCH 111, 132, 142, 143, and 232 (16)
ENG literature (4)
Group IV requirement (HIST 151 recommended) (4)
Ensemble (choral) (3)
MUSP 263 or 272 (6 hours for major area, 3 hours for minor area) (9)
ENG 112 (4)
PEG 100 (3)
Piano or proficiency (3)
Second year (50 hours)
MUCH 131, 231, 241, 242, and 243 (14)
GERM 101, 102, and 103 (12)
Group III requirement (PHYS 350 recommended) (4)
Ensemble (choral) (3)
MUSP 263 or 272 (6 hours for major area, 3 for minor area) (9)
Electives (8)
Third year (49 hours)
MUCH 125, 332, and 333 (12)
MUSP 215 or 311 (2)
MUSP 463 or 472 (6)
MUSP 216 or 312 (2)
Ensemble (choral) (3)
FREN 101, 102, and 103 (12)
MUSP 217 or 313 (2)
MUSP 305, 306, and 307 (6)
Electives (4)

Fourth year (41 hours)
MUCH 301, 403, 404, 405, and 407 (12)
MUSP 415 and 416 (6)
MUSP 396, 397, and 398 (6)
MUSP 463 or 472 (6)
MUED 456 (3)
Ensemble (choral) (3)
Recital (2)
Electives (3)

Instrumental Option

Suggested program (187 hours)

First year (48 hours)
Instrument (12)
MUCH 111, 132, 134, 142, and 143 (16)
Piano (proficiency) (3)
Large ensemble (6)
ENG 112 (4)
ENG literature (4)
PEG 100 (3)
Second year (48 hours)
Instrument (12)
MUCH 231, 232, 241, 242, and 243 (14)
Electives (music and nonmusic) (4)
Group V requirements (4)
Group III requirements (4)
Large ensemble (6)
Group IV requirements (4)
Third year (46 hours)
Instrument (12)
MUSP 305 and 306 (4)
Large ensemble (6)
Small ensemble (3)
MUCH 125, 332, and 333 (12)
Electives (music and nonmusic) (9)
Fourth year (45 hours)
Instrument (12)
Small ensemble (3)
MUCH 315 or 320 (3)
Electives (music and nonmusic) (10)
Recital (2)
Pedagogy (3)
Large ensemble (6)
MUCH 318 and 408 (6)

Keyboard Option (Organ)

Suggested program (185 hours)

First year (46 hours)
MUCH 111, 131, 132, 142, and 143 (16)
ENG 112 (4)
PEG 100 (3)
MUSP 263 (12)
ENG literature (4)
Ensemble (3)
Group III requirements (4)
Second year (49 hours)
MUCH 125, 231, 232, 241, 242, and 243 (18)
Group V requirements (4)
Ensemble (3)
MUSP 263 (12)
Group IV requirements (4)
Electives (music and nonmusic) (8)
Third year (44 hours)
MUCH 332, 333, and 407 (11)
MUSP 215, 216, 217, 305, and 306 (10)
MUSP 463 (12)
Ensemble (3)
Electives (music and nonmusic) (8)
Fourth year (46 hours)
MUSP 396, 397, 398, 415, and 459 (12)
Recital (2)
Electives (music and nonmusic) (8)
MUSP 463 (12)
Ensemble (3)
MUCH 315, 403, 404, and 405 (9)

Keyboard Option (Piano Literature)

Suggested program (185 hours)

First year (48 hours)

MUCH 111, 132, 142, 143, and 232 (16)

ENG 112 (4)

MUSP 261 (12)

Group III requirements (4)

MUCH 134 or 334 (4)

ENG literature (4)

PEG 100 (3)

MUSP 160 (1)

Second year (49 hours)

MUCH 125, 231, 241, 242, and 243 (14)

Group V requirements (4)

MUSP 264 (2)

Electives (4)

MUSP 261 (12)

Group IV requirements (4)

MUSP 210, 211, and 212 (9)

Third Year (44 hours)

MUCH 332 and 333 (8)

MUCH 403 or 404 (2)

MUSP 361, 362, 363, 366, 467, 468, and 469
(12)

MUSP 461 (12)

MUSP 300 (mixed chamber ensemble) (2)

Electives (8)

Fourth year (44 hours)

MUCH 315, 407, 408, and 410 (12)

MUCH 300- or 400-level literature (3)

MUSP 300 accompanying practicum (1)

Recital (2)

MUSP 300 (mixed chamber ensemble) (1)

MUSP 466 (1)

MUSP 461 (12)

Electives (12)

Voice Option

Suggested program (188 hours)

First year (49 hours)

MUSP 272 (10)

MUCH 111, 132, 134, 142, and 143 (16)

ENG literature (4)

Ensemble (3)

Group III requirements (4)

Piano or proficiency (3)

ENG 112 (4)

MUSP 214 (2)

PEG 100 (3)

Second year (51 hours)

MUSP 272 (12)

Piano or proficiency (3)

GERM 101, 102, and 103 (12)

Group IV requirements (4)

MUCH 125, 231, 241, 242, and 243 (14)

Ensemble (3)

Electives (music and nonmusic) (3)

Third year (47 hours)

MUSP 372 (12)

FREN 101, 102, and 103 (12)

MUCH 232, 332, and 333 (12)

MUSP 275 (2)

Ensemble (3)

Electives (music and nonmusic) (6)

Fourth year (41 hours)

MUSP 472 (12)

MUCH 301, 407, or 408 (3)

MUSP 378 (6)

Recital (2)

MUCH 412 (3)

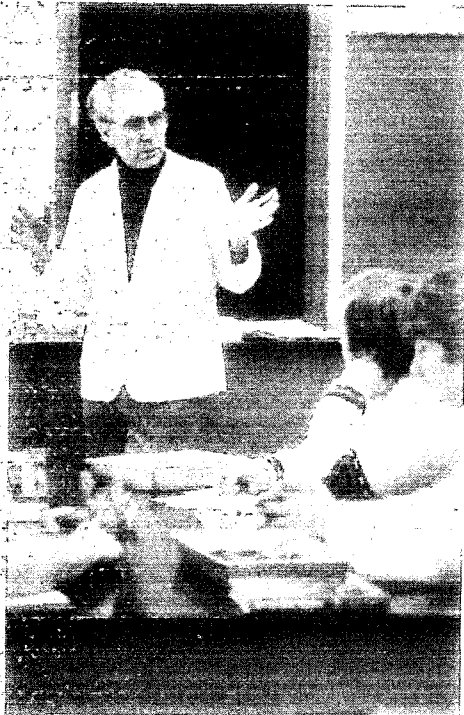
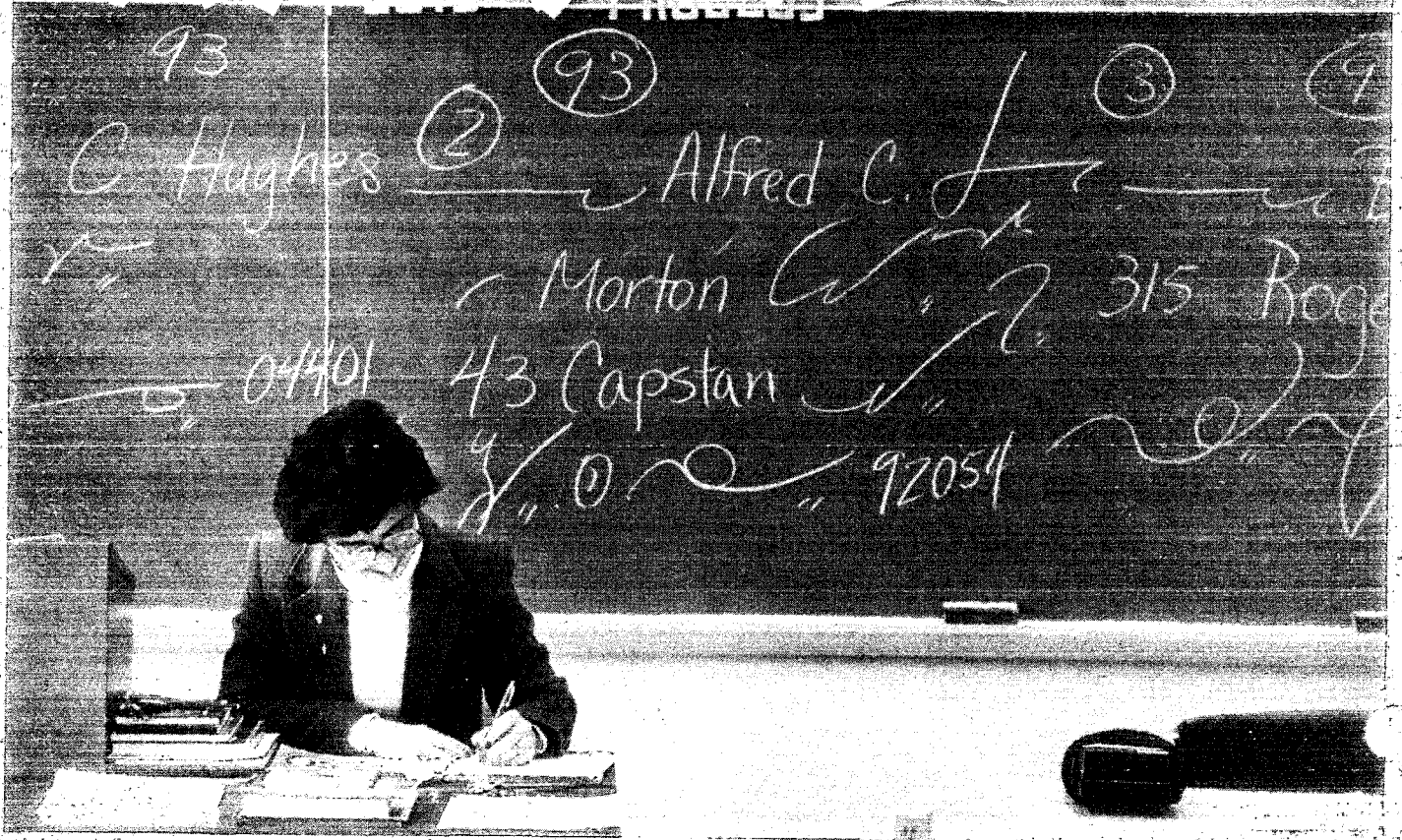
MUSP 305, 311, 312, and 313 (8)

Electives (music and nonmusic) (7)

Other programs

A program in music also is offered through the College of Arts and Sciences.

PROCESSES



● Firelands College

Telephone: (419) 433-5560

Algaelee P. Adams, Dean, 122 East Building
Richard A. Paulsen, Assistant Dean, 112 East Building

Catherine Dyer, Director of Student Services, 139 North Building

John P. Hartung, Director of Registration, 114 East Building

James H. McBride, Coordinator for Community Services, 162 North Building

Denise Mutsko, Director of Public Affairs/Admissions, 110 East Building

Charles C. Stocker, Business Manager, 101 East Building

Terrence Bahn, Coordinator of Program Advisement, 136 North Building

Deborah K. Donley, Assistant to the Director of Admissions, 106 East Building

Michael C. Mesner, Director of Computer Services, 233 North Building

The College

Firelands College is a state-assisted, regional branch campus and college of Bowling Green State University. The campus is located at the Rye Beach Road intersection of State Route 2 and U.S. Route 6 in Huron, Ohio.

Firelands College offers a variety of pre-baccalaureate and two-year associate degree programs, and extension and life-long-learning courses. A major emphasis at Firelands is the offering of university instruction by a qualified university faculty. Firelands combines university instruction with an academic climate and size conducive to close contact and interaction among students, faculty, and the community.

The College is student-oriented and endeavors to provide the academic atmosphere, the human association, and the discipline vital to a student's total development.

Firelands College interprets its mission through activities related to its students, to the community it serves, and to its faculty and staff. It recognizes, through its activities, the need for open interaction among all facets of the College community.

Firelands Library

The Firelands College Library has a collection of more than 33,000 books, 290 periodical subscriptions, and a wide variety of audio-visual materials that enhance the instructional program and provides additional resources for use by members of the community. The collection of the University Libraries in Bowling Green is also made available to Firelands-College students through a regular shuttle service.

The *Library Handbook* contains specific information on the services provided by the library and audio-visual center as well as a general introduction to the use of library research tools. Instruction in the use of the library is offered throughout the academic year and is explained in the handbook.

Admissions

The procedure for admission to Bowling Green State University is described on page 17 of this catalog. Students seeking admission to Firelands College should follow the same procedure.

For specific information, tours, or an admissions interview, contact the Firelands Admissions Office, 901 Rye Beach Road, Huron, Ohio 44839.

Housing

A wide variety of reasonably priced housing options is available throughout the Firelands area. The Firelands Admissions Office maintains a list of available housing which includes rooms, apartments, houses, and motels.

Because the population in the area increases in the summer, many housing options in the local community are available at very reasonable rates during the academic year. Students should, however, plan to provide their own transportation to and from Firelands College. For further information or a complete housing list, contact the Firelands Admissions Office.

Registration

The Office of Registration at Firelands is responsible for the coordination of all registration and bursar-related functions for Firelands students. Student concerns relative to academic policies, registration for classes, payment of fees, and academic records should be addressed to this office, 104 East Building.

Computer Services

Firelands College's access to large-scale computers and on-site mini- and micro-computers on the main campus provides students, faculty, and staff with diverse computing capabilities. Via a remote job entry station and interactive terminals, Firelands has access to software on the IBM 370/158 and DEC System 2050 on the main campus. Locally, a mini-computer and various micro-computers, located in the computer science laboratory, are available for instructional use. Potential users, other than students, should contact the director of computer services at Firelands College.

Student Services

Firelands College provides a variety of student services which include career development and placement; counseling; tutoring; program advisement; and developmental education opportunities. The Student Services Offices maintain day and evening hours to accommodate all students.

Career Development and Placement Services provide group and individual counseling in career planning, decision making, resume writing, interviewing, and job placement.

Counseling Services provide assistance in educational and career planning as well as in personal and social concerns. A variety of developmental and skill-oriented workshops focus on such topics as effective study habits, test anxiety, interpersonal relations, assertiveness training, and career exploration.

Tutoring. Recognizing that students may, occasionally, experience academic difficulties in a particular area of study, Firelands College offers a tutoring program at no charge. Students are eligible to receive tutoring services following a conference with their individual instructors. Student tutors are approved by faculty members. This service is coordinated through the Student Services Office of Firelands College.

Program advisement is another important aspect of student services at Firelands.

Each student who enrolls in college-level work has certain needs, expectations, skills, and goals. Realizing how these factors interrelate with the demands of college-level work is vital to the ultimate success of the student. Academic advising at Firelands College provides the opportunity for students to gather information about various fields of study available through Bowling Green State University. Students who are admitted to pre-baccalaureate or associate degree programs are assigned to advisers at Firelands. While all students are encouraged to make regular contact with their advisers, all freshmen must meet with their advisers every quarter to plan course schedules.

Students who enroll at Firelands College without specifically defined goals have the opportunity to discuss their interests and objectives with the Program Advisement Office at Firelands College. Special guidance is also available for students who are returning to school after a lengthy absence.

Information on academic programs, career and interest testing, library reference materials, and skill development are available throughout the Firelands College community. Representatives from the University's main campus are available at specific times throughout the academic year to provide information on four-year baccalaureate degree programs.

Developmental Education Opportunities are also available for students who encounter learning situations for which they have less than the necessary skills because of inadequate preparation, lengthy absence from the academic environment, or encounters with new or difficult tasks.

A variety of support opportunities are available to students who desire or need supplemental assistance with basic skills preparation. Open laboratories are available in reading, writing, and mathematics. In addition, courses are offered which help students improve basic skills in writing, mathematics, and reading/study.

Cooperative Education

Cooperative education integrates classroom theory with on-the-job training, either in business, government, industry, or the nonprofit sector.

Every effort is made to place students in assignments compatible with their academic programs and career goals. Employers are responsible for assigning, supervising, and evaluating work assignments and for paying students fair wages. Assignments are monitored by the College.

Cooperative education is open to students in all programs. Application should be made at least one quarter prior to the anticipated assignment. Interested students should contact the Student Services Office in the West Building.

Student Life and Activities

Firelands College offers students cocurricular opportunities for personal growth and development. Social, cultural, and athletic programs are sponsored by the Student Activities Office, various student organizations, and academic departments of the University. An opportunity for self-government is afforded students through elected representatives or by election to office. Many academic departments and student groups provide additional opportunities for learning through lectures, seminars, and activity programs. A committee composed of students and faculty advisers develops a calendar of activities and events each year. Chartered clubs and organizations include:

- Black Student Union
- Chess Club
- Firelands College Theatre
- Firelands Environmental Club
- Firelands Express Dance Club/Drill Team
- Firelands Film Factory
- Intramurals
- More Mature Element
- Phi Beta Lambda
- Ski Club
- Social Science Club
- Society of Manufacturing Engineers
- Speech Activities Organization
- Student Advisory Board
- The Lamp
- Weight Club

Financial Aid and Scholarships

The Financial Aid Office, 104 East Building, coordinates all Pell Grants, Ohio Instructional Grants (OIG), National Direct Student Loans (NDSL), and Emergency Loans. The Office for Community Services, 162 North Building, coordinates all scholarship programs. Students should direct questions to the appropriate office.

Scholarships

Numerous annual scholarships are administered by Firelands College. Applications for these scholarships are available from the Financial Aid, Admissions, or Community Services Offices and must be filed by April 15 to be considered for the next academic year. Special need analysis forms are *not* required for scholarships administered directly by the Firelands College, which include:

- BGSU Alumni Scholarships
- Robert D. Carver Scholarship
- Central Soya Company Scholarships
- Erie County Bank Scholarship
- Erie County Board of Realtors Scholarship
- Firelands Area Chapter, BGSU Alumni Association Scholarship
- Thomas J. Hanlon Memorial Scholarship
- The Harlequins Founders' Scholarship
- Huron Junior Women's League Scholarship
- Huron Police Association Scholarship
- Huron Rotary Club Scholarship
- Huron Welcome Wagon Club Scholarship
- Third and Fourth Degrees of Sandusky Knights of Columbus, Firelands Shrine Club, and Singara Grotto Scholarships
- Midwest Bank and Trust Company, Firelands Office, Scholarship
- Milan Chamber of Commerce Scholarship
- Milan Mothers Club Scholarship
- William Parker Family Scholarship
- Pilgrim's Opportunities Scholarship
- Sandusky Exchange Club Scholarship
- Sandusky Optimist Club Scholarship
- Sandusky Register Scholarships
- Savings Building and Loan Company Scholarship
- Lyle L. Speer Memorial Scholarship
- Student Advisory Board of Firelands College (SAB) Scholarship
- Robert W. Traver Memorial Scholarship
- Zonta Club of Sandusky Scholarship

Emergency Loan Funds

The objective of the Firelands College Emergency Loan Fund Program is to assist students who, for one reason or another, find it extremely difficult or impossible to make payment for University instructional and general fees by the payment date.

Amount of Loan

The maximum loan that may be granted is \$250. The amount of the loan is contingent upon the time of application and is determined by the person administering the loan fund. All loans of \$250 need the approval of the loan committee and require a cosignature.

Student Qualifications

The emergency loan program is available to continuing Firelands College students who have at least a 2.0 ("C") accumulative grade point average. Exceptions to these criteria may be considered on an individual basis. Transient students are not eligible for a loan under any circumstances.

Repayment Deadline

All loans during any quarter become due as specified in the loan agreement. Students may request an extension from the loan committee.

Finance Charge

The finance charge for all loans is as follows:

Loan	Finance Charge
\$1-\$50	\$1
\$51-\$99	\$5
\$100-\$250	\$7.50

Late payment

Students who fail to repay emergency loans by the date due are charged a late payment fine. Fines are assessed at a rate of \$.25 per day (including Saturdays and Sundays), but will not exceed \$15. Students are granted a three-day grace period. If payment is not made during the grace period, the fine on the fourth day is \$1.

Non-payment

Students not repaying loans by the end of the grace period (three days after the due date) will have their class registration for that quarter cancelled and all records in the Office of the Registrar frozen. Also, they will be denied registration for any future quarters until the loan and penalty are repaid.

Other Loans**Harry G. Beare Memorial Loan Fund**

This loan is available to Firelands College students who are graduates, or candidates for graduation, from Edison High School in Milan. The loan is based on proven financial need and is interest free. However, it is suggested that the student make a gift to the loan fund after repayment of the loan.

Kiwanis Club of Sandusky Loan Program

The Kiwanis Club of Sandusky has a loan program available to any student in the Firelands College area. A student may negotiate a loan up to \$250 per year which is interest-free while the student is in school. An interest rate of six percent per annum is charged once the student is no longer enrolled at the University. Early repayment of the loan is encouraged after the student's graduation or termination of enrollment in order to allow financial assistance to other students.

V.F.W. Post No. 2743 Loan Fund

The Norwalk Post No. 2743 of the Veterans of Foreign Wars has established a loan fund for Firelands College students. Loans are individually negotiated and no interest is charged when terms of the loan are met. The loan is administered by an agent of the veteran's organization; however, information is available at the Firelands College Financial Aid Office.

Academic Objectives and Organization

Firelands is organized as a college of Bowling Green State University. The college has three academic departments: applied sciences, humanities, and natural and social sciences. The departments are structured by academic discipline as follows:

Applied sciences

Applied mathematics and science
Business management
Computer science
Design technology
Economics
Electronic technology
Environmental health
Industrial engineering technology
Information systems
Manufacturing technology
Medical record technology
Technology, general
Visual communication technology.

Humanities

Art
Creative writing
Education
English
French
Health
Journalism
Library
Philosophy
Physical education
Spanish
Speech communication
Theatre arts

Natural and social sciences

Biology
Chemistry
Geography
Geology
History
Home economics
Human services
Mathematics
Physics
Political science
Psychology
Sociology

Pre-Baccalaureate Courses

Firelands College offers a wide variety of courses that can be applied to most baccalaureate majors available at the Bowling Green campus. Because Firelands College does not offer the baccalaureate degree, a student who plans to complete the degree at Bowling Green State University must complete a minimum of 30 quarter hours of credit in upper division courses on the campus in Bowling Green.

Students who are interested in completing a baccalaureate degree at Bowling Green should consult the appropriate section of this catalog for a complete program description. These students should work closely with their academic advisers at Firelands to ensure completion of appropriate group requirements for the degree sought.

General Education Requirements

A university education is more than the learning of skills appropriate to a career or job. The acquisition of knowledge from such areas as the humanities and the natural and social sciences contribute to the foundation of the well-educated person. Through the courses of the general education requirements, students discover their values and gain insight into the challenges of the future.

Designed to contribute to the foundation of the baccalaureate degree programs, these requirements add breadth to the major field selected by the student. The requirements are grouped into four areas: language, humanities, social science, and mathematics-physical sciences.

A wide variety of general education courses are available at Firelands. These courses can be used to meet the appropriate group requirements in baccalaureate and associate of arts degree programs.

Upper Division Courses

Firelands College primarily serves the educational needs of a student in the freshman and sophomore years of college. However, the college does provide opportunities for some study at the junior, senior, and graduate levels.

Lifelong Learning (Noncredit) Courses

The Office for Community Services offers a wide variety of lifelong learning (noncredit) courses, workshops, and seminars. The chief purpose of the offerings is to provide area residents with opportunities to develop new skills or to stimulate new interests. Special workshops and seminars are also offered in many topical areas, such as management, education, computers, industrial education and technology, and environmental quality control.

Lifelong learning courses, workshops, seminars, and in-service training programs may be organized for a particular firm, school, organization, or interest group. Inquiries relative to the offering of such specific programs should be directed to the Office for Community Services at Firelands College.

Associate Degree Programs

Three associate degrees are offered by Firelands College: Associate of Arts; Associate of Applied Science; and Associate of Applied Business. The Associate of Arts programs are designed to fulfill the first two years of a baccalaureate degree, but may also serve as terminal programs for students who do not plan to complete a four-year degree. The Associate of Applied Business and Associate of Applied Science degrees are primarily intended to

prepare students for employment upon graduation. Although termed career education, they are articulated with similarly oriented four-year programs, thus permitting a student to continue toward a baccalaureate degree in related disciplines.

Students who seek an associate degree must complete both general and specific requirements for the degree sought.

General Requirements

A candidate for an associate degree at Firelands College must satisfy the general requirements listed on page 8 of this catalog.

Those with an American College Test score of 20 or below must complete ENG 111 before taking 112. Those with an ACT score of 11 or below must complete both ENG 110 and 111 before taking 112. Equivalent Career Planning Profile scores may be used for English placement upon the recommendation of the director of student services. No more than eight credit hours of basic writing from ENG 110, 111, and 112 may be applied toward graduation.

Residency Requirement

Students who seek an associate degree from Firelands must complete at least 30 of their final 36 hours of credit at BGSU. Students who choose to complete their residency requirement at a BGSU college other than Firelands must also complete 30 hours at the Firelands campus. Neither transfer credits from a college or university outside BGSU nor credits by examination will be accepted toward completion of the residency requirement.

Associate of Arts

Firelands College offers two years of general education courses leading to the Associate of Arts degree. Students who complete the Associate of Arts degree have reached the half-way point in the progression toward a baccalaureate degree.

The Associate of Arts degree program is designed to provide pre-baccalaureate students with a sound academic background in a number of academic disciplines. Credits earned may be transferred to four-year programs. The intent is to provide a liberal background within a two-year program. General education programs have been developed in the following areas:

- Elementary Education
- Humanities
- Human Services
- Liberal Studies
- Pre-Business Administration
- Science
- Secondary Education
- Social Science

Associate of Arts Requirements

This degree is awarded to a student who completes one of the prescribed curricula, including the general education requirements listed below and complies with general degree requirements cited previously.

Communication

Each student is required to acquire proficiency in written expression and oral communication. ENG 112 and SPCH 102 are required.

Mathematics and Science

Each student must complete a minimum of 15 credit hours in mathematics and science.

Social Sciences

Each student must complete a minimum of 15 credit hours in courses designated social science.

Fine and Applied Arts

Each student must complete a minimum of 15 credit hours in courses designated fine and applied arts including at least one course in ENG literature.

Physical Education

Three academic quarters of physical education (PEG 100) are required, for a minimum of three credits. This requirement may be waived if a student has attained the age of 21 at the time of initial registration, has a written statement from a personal physician, or is a veteran of the military service. Exemption from physical education does not excuse a student from meeting the 93 quarter hours required for graduation.

Electives

Each student must select a sufficient number of electives to earn a minimum of 93 hours. A student planning to pursue a baccalaureate degree in arts and sciences is encouraged to take a foreign language.

Elementary Education

This curriculum provides courses prescribed by colleges of education to students seeking certification in elementary education. These courses are those in the first two years of the program and insure a broad background of study. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum.

Mathematics and Science

MATH 241 and 242 and BIOL 101 or 104, and at least eight hours composed of one course in each of two physical sciences (chemistry, geology, physics, and physical geography). Twenty-two hours minimum.

Social and Behavioral Sciences

All courses listed below plus one additional social science course, except from geography or history. Twenty-nine hours minimum.

GEOG 121 and 122 (8)
HIST 205 and 206 (8)
HIST 151 or 152 (4)
PSYC 201 (5)
Social science elective (4)

Fine and Applied Arts

ART 101 and an ENG literature course. Two additional courses must be selected from art, business education, English, French, home economics, industrial education and technology, philosophy, Spanish, and speech. Fifteen hours minimum. IPCO 202 and PHIL 103 are recommended.

Other Requirements

HED 109 and 110 (5)

Typical Schedule

First Year (48-54 hours)
ENG 111 and/or 112 (4-8)
BIOL 101 or 105 (5)
Physical science (4)
GEOG 121 and 122 (8)
HIST 151 or 152 (4)
HED 109 and 110 (5)
PEG 100 (3)
ART 101 (3)
SPCH 102 (4)
Electives (8-10)

Second Year (45 hours)
ENG literature (4)
MATH 241 and 242 (10)
Physical science (4)
HIST 205 and 206 (8)
Social science elective (4)
Fine and applied arts (8)
Electives (8)

Humanities

This degree program provides the foundation for a Bachelor of Arts program with concentrations in humanities. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum.

Mathematics and Science

Each student must complete both (A) and (B) below. Fifteen hours minimum.

A. One of the following:

1. Three and one-half years of high school mathematics or equivalent proficiency as demonstrated on a placement test.

2. MATH 110 or 121, and one of the following: PHIL 103, or CS 100, 101, or 103.

3. Three years of high school mathematics and CS 100, or 101, or 103.

B. At least two courses elected from biological sciences, chemistry, geology, physical geography (GEOG 125, 126, 127, 213). At least one course must be approved for laboratory credit.

Students who plan to pursue Bachelor of Fine Arts or Bachelor of Arts in Communication degree programs at Bowling Green State University may elect to follow the Group III mathematics and science requirements for those degrees.

Social and Behavioral Science

Each student must complete a minimum of 15 hours from at least two disciplines including a minimum of eight hours in one discipline. Eligible disciplines include: economics, geography, history, political science, psychology, social geography, and sociology.

Fine and Applied Arts

Each student must complete HUM 101 and a minimum of 24 hours from at least three of the following disciplines: art, humanities, literature, philosophy (except PHIL 103, when used to apply to mathematics/science requirements), theatre, film, music, popular culture and American studies. One course in literature and one course in the fine arts (art, music, theatre, film) must be included. See the College of Arts and Sciences Group V listing of approved courses.

Typical Schedule

First Year (48-56 hours)
 ENG 111 and/or 112 (4-8)
 Mathematics elective (5)
 Science (8-10)
 Social science (8)
 Fine and applied arts (8)
 ENG 100 (3)
 SPCH 102 (4)
 Electives (8-10)
Second Year (45 hours)
 ENG literature (4)
 Social science (7)
 Fine and applied arts (16)
 Electives (18)

Human Services

This program prepares students for employment as paraprofessionals in social service agencies. It also provides a means for those currently employed in agencies and organizations to improve their proficiencies and qualify for promotions.

The two-year degree program combines academic courses and supervised field experiences and may be applied toward several baccalaureate community services programs offered by the College of Health and Community Services. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum. In addition, IPCO 203 is required.

Mathematics and Science

A minimum of 15 credit hours in mathematics and science. MATH 115 or STAT 211 is required. Science courses may be selected from biology, chemistry, geology, physical geography, computer science, and physics.

Social and Behavioral Sciences

A minimum of 40 hours in social and behavioral areas. Required courses are: PSYC 201, 303, and 305; SOC 101, 202, and 361 (or HOEC 105); POLS 201; SOWK 110 and 220.

Fine and Applied Arts

BAT 200, BUSE 230, PHIL 102, HED 110, and one literature course are required.

Field Experience

Thirty volunteer hours in a supervised field experience is one of the requirements for SOWK 220. During the student's second year, a ten-week supervised field experience at a campus-approved agency is required. Two to six credit hours (HOEC 289) may be earned depending on the number of weekly hours of the field experience. A seminar in human services (CEO 201) is taken at the same time as the supervised field experience.

Typical Schedule

First Year (45-47 hours)
 ENG 111 and/or 112 (4-8)
 SPCH 102 (4)
 PSYC 201 (5)
 BAT 200 (4)
 SOC 101 (4)
 SOWK 110 and 220 (8)
 IPCO 203 (4)
 MATH 115 (5)
 HED 110 (2)
 POLS 201 (4)
 PEG 100 (1-2)
Second Year (45-55 hours)
 Science elective (4-5)
 PSYC 303 and 305 (6)
 SOC 202 and 361 (8)
 HOEC 105 (4)
 Literature course (4)
 PEG 100 (1-2)
 BUSE 230 (3)
 PHIL 102 (4)
 HOEC 289 (2-5)
 CEO 201 (3)
 Electives (6-10)

Liberal Studies

This curriculum allows the undecided student to sample a variety of disciplines while insuring a well-rounded background. A student may obtain a degree in liberal studies and a foundation in journalism or another profession or a two-year terminal degree. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum.

Mathematics and Science

A minimum of 15 hours in at least two sciences or a science and a mathematics combination.

Social and Behavioral Sciences

A minimum of 15 hours chosen from: economics, geography, history, political science, psychology, and sociology.

Fine and Applied Arts

Each student must complete both (A) and (B).

A. *Fine Arts and Humanities*: HUM 101 and a minimum of 11 hours from at least two of the following: art, film, humanities, English, music, philosophy (except PHIL 103 when used to apply to math and science requirements), popular culture, theatre and American studies. One course in ENG literature must be included.

B. *Applied Arts*: a minimum of four hours from: business education, environmental health, health education, home economics, industrial education and technology, or journalism.

Other Requirements

In addition, each student must complete 24 hours at the 200 level.

Typical Schedule

First Year (42-48 hours)
 ENG 111 and/or 112 (4-8)
 Mathematics and science (10)
 Social science (8)
 Fine and applied arts (7)
 PEG 100 (3)
 SPCH 102 (4)
 Electives (6-8)
Second Year (45 hours)
 ENG literature (4)
 Mathematics and science (5)
 Social science (7)
 Fine and applied arts (4)
 Electives (25)

Pre-Business

This program of study includes the general education requirements and offers business foundations in mathematics, accounting, economics, and statistics. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. SPCH 102 and one additional course in speech communication are required. Twelve hours minimum.

Mathematics and Science

A minimum of 26 hours including STAT 211 and 212, MIS 200 and one of the following:
 A. MATH 124 and 125 and a science (15 hours); or
 B. MATH 131, 231, and 232 (15 hours).

Social and Behavioral Sciences

A minimum of 23 hours including PSYC 201 or SOC 101, and ECON 202 and 203. The remainder may be chosen from geography, history, political science, psychology, and sociology.

Fine and Applied Arts

A minimum of 15 hours from at least two of the following departments: art, foreign language, English, philosophy, and speech. One course in ENG literature must be included.

Other Requirements

Each student must complete ACCT 221 and 222.

Typical Schedule*First Year (46-50 Hours)*

ENG 111 and/or 112 (4-8)
MATH 124 and 125 (10) or MATH 131 and 231 (10)
Science and mathematics (5)
Social science (8)
Fine and applied arts (8)
SPCH 102 (4)
PEG 100 (3)

Second Year (45-48 hours)

ENG literature (4)
PSYC 201 (5) or SOC 101 (4)
MIS 200 (4)
ECON 202 and 203 (4)
ACCT 221 and 222 (4)
Fine and applied arts (3)
Speech communication (4)
Social science (4)
Electives (6-8)

Science

This program provides the foundation for a Bachelor of Science degree in such areas as biological sciences, computer science, chemistry, geology, physical geography, mathematics, and physics. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum.

Mathematics and Science

A minimum of 30 hours including a concentration of four courses in a major field and two courses in a cognate field. Eligible disciplines include: biological sciences, computer science, chemistry, geology, physical geography, mathematics, and physics. MATH 130 or 131, depending on a student's preparation, is required.

Social and Behavioral Sciences

A minimum of 21 hours including PSYC 201 and courses from at least two of the following disciplines: economics, geography, history, political science, and sociology.

Fine and Applied Arts

A minimum of 15 hours from at least two of the following: art, film, literature, music, popular culture, philosophy, speech, and theatre. One course in literature must be included; a course in the fine arts (art, film, music, or theatre) is highly recommended. (See College of Arts and Sciences listings for Group V courses.)

Typical Schedule

First Year (50-58 hours)
ENG 111 and/or 112 (4-8)
MATH 130 or 131 (5)
Science (15)
Social science (8)
Fine and applied arts (7)
PEG 100 (3)
SPCH 102 (4)
Electives (4-8)

Second Year (45 hours)

ENG literature (4)
Science (15)
PSYC 201 (5)
Social science (7)
Fine and applied arts (4)
Electives (10)

Secondary Education

Students in this program have the opportunity to complete the general education requirements of colleges of education and to meet major and minor requirements in courses offered at Firelands College. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts programs. Eight hours minimum.

Mathematics and Science

A minimum of 15 hours in at least two sciences or a science and a mathematics combination.

Social and Behavioral Sciences

A minimum of 20 hours, including PSYC 201, chosen from the following disciplines: economics, geography, history, political science, psychology, and sociology.

Fine and Applied Arts

A minimum of 15 hours from at least two of the following disciplines: art, business education, English, French, home economics, industrial education and technology, philosophy, Spanish, and speech. One course in English literature must be included.

Other Requirements

Each student should consult an adviser for information concerning courses required in various secondary teaching fields.

Typical Schedule

First Year (48-56 hours)
ENG 111 and/or 112 (4-8)
Mathematics and science (10)
Social science (8)
Fine and applied arts (7)
PEG 100 (3)
Electives (major/minor) (16-20)
Second Year (45 hours)
ENG literature (4)
Mathematics and science (5)
Social science (7)
Fine and applied arts (4)
Electives (major/minor) (25)

Social Science

This curriculum offers the foundation for a Bachelor of Arts degree program in geography, history, political science, psychology, sociology, or liberal studies. In addition to the Associate of Arts general requirements, students must complete the following:

Communication

See general education requirements for Associate of Arts program. Eight hours minimum.

Mathematics and Science

Both (A) and (B) below. Fifteen hours minimum.

A. One of the following:

1. Three and one half years of high school mathematics or equivalent proficiency as demonstrated on a placement test.
2. MATH 115, 124, 130 or 222;
3. MATH 110, or 121, and one of the following: PHIL 103, MIS 200, or CS 101 or 103.
4. Three years of high school mathematics and CS 101 or 103 or MIS 200.

B. At least two courses elected from biological sciences, chemistry, geology, physics, or physical geography (GEOG 125, 126, 127, 213). One course must be approved for laboratory credit.

Social and Behavioral Sciences

A minimum of 28 hours from at least three of the following disciplines: anthropology, economics, history, social geography, psychology, and sociology. Students should also have an area of concentration from one of these disciplines.

Fine and Applied Arts

A minimum of 15 hours from at least two of the following: art, film, literature, music, philosophy (except PHIL 103 when used to apply to mathematics/science requirements), popular culture, speech, and theatre. One course in literature must be included; a course in the fine arts (art, film, music, or theatre) is highly recommended. (See College of Arts and Sciences listings for Group V courses.)

Typical Schedule

First Year (48-58 hours)
ENG 111 and/or 112 (4-8)
MATH elective (5)
Science (8-10)
Social science (12)
Fine and applied arts (8)
SPCH 102 (4)
PEG 100 (3)
Electives (4-8)
Second Year (45 hours)
ENG literature (4)
Social science (16)
Fine and applied arts (3)
Electives (22)

Associate of Applied Business

Two-year, career-oriented curricula are available leading to the Associate of Applied Business degree. These programs prepare students for immediate employment in area communities and elsewhere, and also may be transferred to similarly oriented baccalaureate degree programs.

Usually, general education group requirements are not part of the curriculum. Those general education courses that are taken are in some related general education field (such as English, speech, psychology), in appropriately related disciplines (such as applied mathematics and science, physical science), and in specific major areas (such as business management, secretarial technologies). Applied Business programs offered at Firelands include:

Business Management Technology
Computer Science Technology
Executive Secretarial Technology

Associate of Applied Business Requirements

This degree is awarded to a student who successfully completes the career-oriented programs listed below and the general associate degree requirements listed on page 8.

Business Management Technology

Majors within this program are accounting, banking and finance, business management, and food service/restaurant management.

Accounting

Richard Highfield, Program Director
320-E West Building, Firelands College

Planned Program

This program prepares students for paraprofessional positions in industrial, public, or governmental accounting. It is designed to provide the graduate with theoretical and practical accounting knowledge and skills required of business personnel in today's economy. Many of the courses in the two-year accounting program are applicable to the four-year baccalaureate degree in business.

First Year

General Education
ENG 111 and/or 112 (4-8)
SPCH 102 (4)

Basic Sciences
MIS 200 (4)
MATH 110 or 124 (5)
CST 260 (4)
MATH 125 or computer elective (4-5)

Core Courses
ACCT 221 and 222 (8)
ACT 231* (4)
BAT 102 (4)
BUSE 220 (3)

Second Year

General Education
SOC 101 or PSYC 201 (4-5)
ECON 202 and 203 (8)

Basic Sciences
STAT 211 and 212 (8)
LEGS 301 (4)

Core Courses
ACT 241* and 251* (8)
BAT 200, 204, 207, and 291 (16)

*Designed only for the associate degree in accounting.

Banking and Finance

Jeffrey N. Krabill, Program Director
311-A West Building

Planned Program

This program is designed to prepare students for careers in the banking and financial industries. The program is planned to fit the needs of students whose work necessitates a part-time schedule. The program emphasizes management, finance, accounting, and banking skills dealing with operations, loans, trusts, and consumer services. Many of the courses in the two-year banking and finance program are applicable to the four-year baccalaureate degree in business.

First Year

General Education
ENG 111 and/or 112 (4-8)
ECON 200 (4)
SPCH 102 (4)
General studies (8-9)

Basic Sciences
MATH 110 (5)
BUSE 101 or MATH elective (4-5)
MIS 200 (4)

Core Courses
BAT 200, 201, 204, 210,* 211,* and 291 (19)

Second Year

Basic Sciences
LEGS 301 (4)
Computer elective (4-5)
MKT 340 (4)
ACCT 221 and 222 (8)

Core Courses
BAT 201, 205, 207, 212,* 213,* 214,* and 291 (27)

*Offered in consortium with the American Institute of Banking

Business Management

Jeffrey N. Krabill, Program Director
311 West Building

Planned Program

Persons completing the business management technology program are involved in the management of both human and capital resources. Their work may include personnel administration, operations and production supervision, marketing, business research, financial management, accounting, or the small business environment. Career opportunities exist in the industrial sector, private service firms, governmental agencies and nonprofit organizations.

First Year

General Education
ENG 111 and/or ENG 112 (8)
SPCH 102 (4)
Electives (8-10)

Basic Courses

MATH 110 (5)
MIS 200 (4)
STAT 211 (4)
STAT 212 or quantitative elective (4-5)

Core Courses

BAT 102, 200, 201, 205, and 291 (20)

Second Year

General Education

BA 303 (4)
ECON 202 and 203 (8)

Basic Courses

LEGS 301 (4)
Quantitative elective (4-5)

Core Courses

ACCT 221 and 222 (8)
BAT 203, 204, 207, 208,* 250,* and 291 (16-24)

*Optional electives

Food Service/Restaurant Management

M.P. Henning III, Program Director
155 North Building

Planned Program

The one-year program is designed to retrain or upgrade employees already working in this field. It can also be useful to individuals who have graduated from food preparation programs at the high school level. The two-year program is for individuals with no experience in this field. The programs emphasize fundamental communication, management, sanitation, and safety skills required to supervise a food service operation. Career opportunities include positions in fast food operations, catering services, restaurants, institutional food operations and vending operations.

One-Year Certificate

General Education
ENG 111 and/or 112 (4-8)
SPCH 102 (4)

Basic Sciences
AMS 100 or MATH 110 (5)

Core Courses

BAT 102, 200, 201, 204, and 205 (20)
ENVT 122, 160, 280, 281, and 291 (11)

Two-Year Program

First Year

General Education
ENG 111 and/or 112 (4-8)
SPCH 102 (4)

Basic Sciences

MATH 110 and 124 (10)
HOEC 210 and 212 (9)
CHEM 111 (4)

Core Courses

BAT 102, 204, and 205 (12)
ENVT 160, 280, 281, and 291 (10)

Second Year

General Education

ECON 200 (4)
PSYC 201 (5)
BA 303 (4)
LEGS 301 (4)

Basic Sciences

MIS 200 (4)
HOEC 331 (4)

Core Courses

ACCT 221 and 222 (8)
BAT 200, 201 and 291 (12)

Computer Science Technology

Ronald Willard, Program Director
233 North Building

Planned Program

Computer science technicians are two-year college graduates with an associate of applied business degree. Graduates will have learned principles of computer logic and decision making, computer languages (FORTRAN, COBOL, IBM 360/370 Assembler), advanced programming skills such as structured design, basic system architecture, and techniques of system analysis. Career opportunities exist in business, industry, education, government or public service as application programmers, maintenance programmers or programmer/analysts.

First Year

General Education
ENG 111 and/or 112 (4-8)
PHIL 103 (4)
SPCH 102 (4)

Basic Courses
MATH 110, 124, or 131 (5)
STAT 211 (4)
MATH 125, 130, or 231 (5)

Core Courses
CS 101, 104, and 360 (13)

Electives (recommended)
BAT 102 (4)
ENG 111 (4)

Second Year

General Education
PSYC 201 (5)
SOC 101 (4)

Basic Courses
ACCT 221 and 222 (8)

Core Courses
CS 201 and 202 (8)
CST 221, 231, and 232 (11)
CS 390 (1-4)

Electives
STAT 212 (4)
MGMT 300 (4)
BAT 200 (4)

Executive Secretarial Technology

Teresa A. Marano, Program Director
311-B West Building

Planned Program

The two-year executive secretarial technology program at Firelands College prepares students for secretarial positions in industrial establishments, professional offices, and government agencies. Upon successful completion of the two-year program, students receive an Associate of Applied Business degree.

The program is designed to give students skills in secretarial technology and in communication and business theory that enhance students' opportunities for career advancement. The program can meet the needs of both beginning and advanced secretarial students, and

credits received may be applied toward a four-year baccalaureate degree in a related field.

In addition to the two-year program, one-year certificate programs are offered in medical secretarial and clerical skills.

First Year

General Education
ENG 111 and/or 112 (4-8)
SPCH 102 (4)

Basic Courses
BAT 102 (4)

Core Courses
BUSE 101, 111, 112, 210, 211, 213, 214, 215, and 220 (28)

Second Year

*General Education**
PSYC 201, 303, and 305 (11) or BAT 200, 201, or 205 (4)

Basic Courses
ACCT 221 (4)
ECON 200 (4)
BA 303 (4)
LEGS 301 (4)

Core Courses
BUSE 230, 240, 311, 312, 321, and 401 (21)
BUSE 314 (1-3)

Clerical Option

The one-year clerical program option prepares students for clerk/typist positions. The program is arranged so that credits received in a one-year program may be transferred if a student decides to pursue a two- or four-year degree in a related field. To receive the clerical certificate, the student must have at least a 2.0 grade point average for all work attempted.

One-Year Certificate

General Education
ENG 111 and/or 112 (4-8)
SPCH 102 (4)

Basic Course
BAT 102 (4)

Core Courses
BUSE 101, 111, 112, 210, 211, 220, 230, 240, and 401 (31)

Medical Secretarial Option

Ellen F. Wachs, RRA, Program Director
302 West Building

Planned Program

The medical secretary/transcriptionist is responsible for transcribing medical information and reports from dictating equipment onto paper in a complete and accurate manner. Career opportunities exist in the medical record departments of hospitals, physicians' offices, private clinics, and other settings. The program consists essentially of the first year of the medical record technology program, combined with selected courses from the executive secretarial program, and students may continue in either program for an associate degree.

One-Year Certificate

General Education
ENG 111 and/or 112 (4-8)

Basic Sciences
MATH 115 (5)

Core Courses
BUSE 111, 112, 210, and 211 (12)
MRT 100, 101, 102, 111, 290, and 291 (20)

Associate of Applied Science

Two-year, career-oriented curricula also exist leading to the Associate of Applied Science degree. These programs prepare students for immediate employment in area communities and elsewhere, and also may be transferred to similarly oriented baccalaureate degree programs.

Usually, general education group requirements are not part of the curriculum. Those general education courses that are taken are in some related general education field (such as English, speech, psychology), in appropriately related disciplines (such as applied mathematics and science, physical science), and in specific major areas (such as environmental health and engineering technologies).

Applied Science programs offered at Firelands include:

Electrical/Electronics Engineering Technology
Environmental Health Technology
Industrial Engineering Technology
Medical Record Technology

Associate of Applied Science Requirements

This degree is awarded to a student who successfully completes one of the career-oriented programs listed below and the general associate degree requirements listed on page 8 of this catalog.

Electrical/Electronics Engineering Technology

Majors in this program are biomedical equipment, computer electronics, electrical/electronics engineering, and plant engineering.

Bio-Medical Equipment Technology

Gerard P. Colgan, Program Director
152 North Building

Planned Program

Program emphasis centers on fundamental communication, hazard recognition, bio-medical electronics, safety, and hygiene skills required to identify and prevent potential equipment problems associated with health care facilities. Career opportunities include positions in hospitals, nursing homes, private consulting firms, and private equipment manufacturers. The bio-medical technician is capable of assisting hospital and nursing home personnel in setting up and running

*Consult adviser to choose appropriate courses if contemplating a baccalaureate degree.

bio-medical electronics equipment programs. This major can be applied toward the baccalaureate degree in environmental health.

First Year

General Education

ENG 111 (4)
SOC 101 (4)

Basic Sciences

MATH 110 (5)
PHYS 214 and 215 (10)

Core Courses

ET 100, 147, and 148 (12)
TECH 291 (4)
ENVT 270 (5)

Second Year

General Education

ENG 112 (4)
SPCH 102 (4)
PSYC 201 (5)

Basic Sciences

BIOL 104, 331, and 332 (15)
MRT 101 (5)

Core Courses

ET 244, 247, 248, 249, and 442 (23)
TECH 218 and 291 (7)

Computer Electronic Technology

Joseph O'Loughlin, Program Director
234 North Building

Planned Program

Computer electronic technicians are employed in business, government and industry. Their responsibilities include building, installing, maintaining, troubleshooting, and repairing computer systems. Due to the complex nature of computer program use and customer relations, most companies seek employees who have earned an Associate of Applied Science degree in electronics and who have a background in computer operation. Demand for computer electronic technicians is expected to continue as business and industry increase productivity through automation.

First Year

General Education

ENG 111 and/or 112 (4-8)

Basic Sciences

MATH 110 and 124 or 129 or 130 (8-10)
PHYS 214 and 215 (10)
MIS 200 (4)

Core Courses

ET 100, 147, 148, and 245 (15)
DESN 104 (4)

Second Year

General Education

SPCH 102 (4)
SOC 101 (4)
PSYC 201 (5)

Basic Sciences

Computer Elective (4)

Core Courses

ET 244, 247, 248, 249, and 442 (23)
TECH 291 (4)

Electrical/Electronics Engineering

Gerard P. Colgan, Program Director
152 North Building, Firelands College,

Planned Program

Academic preparation for this program covers communication systems, computers, instrumentation and measurements, power and energy, materials processing and design and engineering graphics. The program prepares students for positions as engineering assistants, junior engineers, production technicians, instrument calibration and repair technicians, field service technicians, customer service representatives, and other entry-level positions in the electronic engineering field.

First Year

ENG 111 and/or 112 (4-8)

Basic Sciences

MATH 110 (5)
PHYS 214 and 215 (10)

Core Courses

ET 100, 147, 148, and 245 (15)
DESN 104 (4)
MFG 113, 114, and 218 (11)
TECH 191 and 291 (8)

Second Year

General Education

SPCH 102 (4)
SOC 101 (4)
PSYC 201 (5)
Elective

Basic Sciences

MIS 200 (4)

Core Courses

ET 244, 247, 248, and 249 (19)

Plant Engineering Technology

Gerard P. Colgan, Program Director
152 North Building

Planned Program

This program covers heating, air conditioning, ventilating, design and engineering graphics, metallic and plastic material processing, industrial equipment controls, computers, instrumentation and measurements, and power and energy conservation. The program prepares students for positions as engineering assistants, junior engineers, production technicians, instrument calibration and repair technicians, field service technicians, customer service representatives, and other entry-level positions in plant engineering.

First Year

General Education

ENG 111 and/or 112 (4-8)

Basic Sciences

MATH 110 (5)
PHYS 214 and 215 (10)

Core Courses

DESN 104 (4)
ET 100, 147, 148, and 245 (15)
MFG 113, 114, and 218 (11)
TECH 191 (4)

Second Year

General Education

SPCH 102 (4)
SOC 101 (4)
PSYC 201 (5)
Elective

Basic Sciences

MIS 200 (4)

Core Courses

ET 201, 244, 247, and 248 (19)
TECH 191 (4)
CONS 337 (4)

Environmental Health Technology

Majors within this program are environmental health, occupational health and safety analysis, and water and wastewater treatment. Any of these majors can be applied toward the baccalaureate degree in environmental health.

A one-year option in public health is also offered.

Environmental Health

M.P. Henning III, Program Director
155 North Building

Planned Program

Environmental health technicians are two-year college graduates with an Associate of Applied Science degree. Their work includes sample collection, analysis and inspection of indoor and outdoor environments for the insuring of compliance with occupational, public health, safety, and environmental quality laws. Career opportunities exist in private industry, environmental protection and occupational safety agencies, public health and county engineering departments, pollution analysis laboratories, private consulting firms, water and wastewater treatment facilities, and health care institutions.

First Year

General Education

ENG 111 (4)
POLS 101 (4)
PSYC 201 (5)

Basic Sciences

CHEM 111 or 121 (4-5)
CHEM 112 or 122 (4-5)
PHYS 214 and 215 (10)
MATH 110 (5)

Core Courses

ENVT 141, 160, and 226 (11)
ENVT 223, * 280, * 281, * and 291* (9)

Second Year

General Education

ENG 112 (4)
SOC 101 (4)
SPCH 102 (4)

Core Courses

ENVT 110, 121, 211, 225, 260, and 291 (37)
ENVT 261, * and 272, * (6)
ENVT 290* (1-4)

Occupational Health and Safety Analysis

M.P. Henning III, Program Director
155 North Building

Planned Program

The one-year program is designed to retrain or upgrade people already working in this field. The two-year major is for people with no experience in this field. The occupational health and safety technician conducts sample collection, analysis, and inspection of the work environment to insure compliance with occupational health and safety laws for workers on the job. The technician is capable of assisting safety and industrial hygiene personnel in setting up and running an occupational health and safety program in private industry. Career opportunities include positions in private industry, pollution analysis laboratories, private consulting firms, and occupational safety and health agencies.

One-Year Certificate

General Education

ENG 111 (4)
SPCH 102 (4)

Basic Sciences

ENVT 122 (1)
TECH 218 (3)
BAT 205 (4)
MATH 110 (5)

Core Courses

ENVT 225, 260, 270, 272, and 291 (21)
ENVT 261* (3)
ENVT 290 (1-4)

Two-Year Program

First Year

General Education

ENG 111 (4)
PSYC 201 (5)

Basic Sciences

CHEM 111, 112, and 213 (12)
PHYS 214 and 215 (10)
MATH 110 (5)
ENVT 122 (1)

Core Courses

MFG 113 and 114 (8)
ENVT 290 (1-4)
ENVT 270, 272, and 291 (12)

Second Year

General Education

POLS 101 (4)
SPCH 102 (4)
ENG 112 (4)
SOC 101 (4)

Basic Sciences

DESN 104 (4)
BAT 205 (4)
TECH 218 (3)

Core Courses

ENVT 225, 260, and 291 (13)
ENVT 290 (1-4)
ENVT 261* (3)

Public Health Option

M.P. Henning III, Program Director
155 North Building

Planned Program

The one-year public health program prepares technicians capable of assisting sanitarians in public health departments. It is designed to retrain or upgrade people already working in this field. Program emphasis centers on communication, microbiology, infection control, hazard recognition, environmental and institutional health, sanitation, and safety skills required to identify and control current problems associated with the health field.

Public Health—One-Year Certificate

General Education

ENG 111 (4)
SPCH 102 (4)

Basic Sciences

AMS 100 or MATH 110 (5)

Core Courses

ENVT 110, 121, 160, 225, 226, 270, 281,
and 291 (28)
ENVT 223 or 280 (2)

Water and Wastewater Treatment

M.P. Henning III, Program Director
155 North Building

Planned Program

The one-year program is designed to retrain or upgrade people already working in this field. The two-year program is for individuals with no experience in this field. The water and wastewater technician conducts sample collection analysis and inspection of water for process control and for compliance with environmental quality laws. Career opportunities include positions in private industry, environmental protection agencies, county engineering departments, pollution analysis laboratories, private consulting firms, and water and wastewater treatment facilities.

One-Year Certificate

General Education

ENG 111 (4)
SPCH 102 (4)

Basic Sciences

AMS 100 or MATH 110 (5)
ENVT 270 and 272 (8)

Core Courses

ENVT 110, 211, 222, 223, and 291 (22)
TECH 218 (3)

Two-Year Program

First Year

General Education

ENG 111 and/or 112 (4-8)
PHYS 214 and 215 (10)
POLS 332 (4)

Basic Sciences

CHEM 111 and 112 (8)
MATH 110 (5)

Core Courses

ENVT 270 and 272 (8)
BAT 200 and 201 (8)
ENVT 290 (1-4)

Second Year

General Education

PSYC 201 (5)
SPCH 102 (4)
SOC 101 (4)

Core Courses

ENVT 110, 211, 222, 223, and 291 (22)
ACCT 221 (4)
ENVT 290 (1-4)
ET 147 (5)
TECH 191 and 218 (7)

Industrial Engineering Technology

Martin E. Birmingham, Program Director
Library, East Building

Planned Program

Industrial engineering technicians are graduates of a self-paced program using audio-visual materials and textbooks as learning media. An instructor is available at scheduled times to guide, direct, and assist students. The complete program consists of six modules, approximately 1,700 study hours, and 100 college credit hours. A student can take any module out of sequence depending upon previous education and experience. Career opportunities exist in industry, business, and institutions using manpower and equipment. Entry may be at the junior engineering level in positions dealing with analysis, job/methods study or operation, using man, material, and machine.

Individual modules in this program cover:

The industrial environment
Time-motion-methods study
Production planning and quality control
Facilities planning and maintenance
Industrial relations
Advanced topics

Due to the individualized nature of the program, a detailed program sequence may be obtained from the program director.

Medical Record Technology

Ellen F. Wachs, RRA, Program Director
305 West Building

Planned Program

Medical record technicians are two-year college graduates who are eligible to sit for the national accreditation examination administered by the American Medical Record Association. After successful completion of the examination, the Accredited Record Technician (ART) is ready to work in the ever-expanding field of medical records. Career opportunities exist in private businesses, as well as in hospitals, extended care facilities, and government agencies. Their work includes all aspects of medical record keeping: filing; analyzing; coding; researching; preparing statistics; answering subpoenas and

correspondence; indexing; transcribing; auditing; and collecting and presenting medical data, through the use of manual and computerized systems.

First Year

General Education

ENG 111 (4)

Basic Sciences

MATH 115 (5)

BUSE 111 (4)

BIOL 104, 331, and 332 (15)

Core Courses

MRT 100, 101, 102, 111, 112, and 201 (22)

MRT 290* and 291* (5)

Second Year

General Education

ENG 112 (4)

BA 303 (4)

SPCH 102 (4)

SOC 101 (4)

PSYC 201 (5)

Basic Sciences

LEGS 301 (4)

BAT 205 (4)

MIS 200 (4)

Core Courses

MRT 201, 204, 205, 211, 212, and 290 (17)

*Optional elective

Academic Abbreviations

- A&S (Arts and Sciences)
 AA (Associate of Arts)
 AAB (Associate in Applied Business)
 AAS (Associate in Applied Science)
 ACCT (Accounting)
 ACT (Accounting Technology)
 AERO (Aerospace Studies)
 AERT (Aerotechnology)
 AMS (Applied Mathematics and Science)
 AMST (American Studies)
 ART (Art)
 BA (Business Administration; Bachelor of Arts)
 BAC (Bachelor of Arts in Communication)
 BAT (Business Management Technology)
 BFA (Bachelor of Fine Arts)
 BIOL (Biological Sciences)
 BLS (Bachelor of Liberal Studies)
 BM (Bachelor of Music)
 BS (Bachelor of Science)
 BSAM (Bachelor of Science in Applied Microbiology)
 BSAT (Bachelor of Science in Art Therapy)
 BSBA (Bachelor of Science in Business Administration)
 BSCFS (Bachelor of Science in Child and Family Services)
 BSCJ (Bachelor of Science in Criminal Justice)
 BSD (Bachelor of Science in Dietetics)
 BSE (Bachelor of Science in Economics)
 BSED (Bachelor of Science in Education)
 BSEH (Bachelor of Science in Environmental Health)
 BSG (Bachelor of Science in Gerontology)
 BSJ (Bachelor of Science in Journalism)
 BSMRA (Bachelor of Science in Medical Record Administration)
 BSMT (Bachelor of Science in Medical Technology)
 BSPME (Bachelor of Science in Parasitology and Medical Entomology)
 BSPT (Bachelor of Science in Physical Therapy)
 BSSPA (Bachelor of Science in Speech Pathology and Audiology)
 BSSW (Bachelor of Science in Social Work)
 BST (Bachelor of Science in Technology)
 BUSE (Business Education)
 CDIS (Communication Disorders)
 CEO (Center for Educational Options)
 CHEM (Chemistry)
 CONS (Construction Technology)
 CRJU (Criminal Justice)
 CS (Computer Science)
 CST (Computer Science Technology)
 DESN (Design Technology)
 ECON (Economics)
 EDAS (Educational Administration and Supervision)
 EDCI (Educational Curriculum and Instruction)
 EDCO (College of Education)
 EDFI (Educational Foundations and Inquiry)
 EDSE (Special Education)
 ENG (English)
 ENVH (Environmental Health)
 ENVR (Industrial Environment Technology)
 ENVS (Environmental Studies)
 ENVT (Environmental Health Technology)
 ET (Electronic Technology)
 ETHN (Ethnic Studies)
 FIN (Finance)
 FIRE (Firelands)
 FREN (French)
 GEOG (Geography)
 GEOL (Geology)
 GERM (German)
 GERO (Gerontology)
 GPA (Grade Point Average)
 HCS (Health and Community Services)
 HED (Health Education)
 HIST (History)
 HOEC (Home Economics)
 HUM (Humanities)
 IE (Industrial Education)
 INET (Industrial Education Technology)
 INS (Insurance)
 IPCO (Interpersonal and Public Communication)
 ITAL (Italian)
 JAPN (Japanese)
 JOUR (Journalism)
 L&EM (Library and Educational Media)
 LAS (Latin-American Studies)
 LAT (Latin)
 LEGS (Legal Studies)
 LING (Linguistics)
 MATH (Mathematics and Statistics)
 MEDT (Medical Technology)
 MFG (Manufacturing Technology)
 MGMT (Management)
 MILS (Military Science)
 MIS (Management Information Systems)
 MKT (Marketing)
 MRA (Medical Record Administration)
 MRT (Medical Record Technology)
 MUCH (Music Composition and History)
 MUED (Music Education)
 MUSP (Music Performance Studies)
 NDSL (National Direct Student Loan)
 NURS (Nursing)
 OIG (Ohio Instructional Grant)
 OPRE (Operations Research)
 PEG (Physical Education, General)
 PEP (Physical Education, Professional)
 PHIL (Philosophy)
 PHYS (Physics)
 POLS (Political Science)
 POPC (Popular Culture)
 PSYC (Psychology)
 RED (Recreation and Dance)
 ROML (Romance Languages)
 RTVF (Radio-TV-Film)
 RUSN (Russian)
 SAGE (Senior Adult Grants for Education)
 SEOG (Supplemental Educational Opportunity Grant)
 SOC (Sociology)
 SOWK (Social Work)
 SPAN (Spanish)
 SPCH (Speech)
 SSM (Sports Studies and Management)
 STAT (Applied Statistics)
 TECH (Technology, School of)
 THEA (Theatre)
 TOEFL (Test of English as a Foreign Language)
 VCT (Visual Communication Technology)
 WS (Women's Studies)

Description of Courses

A ♦ preceding a course number indicates that the course is offered both at Firelands and on the main campus.

A † preceding a course number indicates that the course is offered only at Firelands.

The Arabic number in parentheses immediately following the title of the course indicates the number of hours of credit.

The Roman numerals indicate the quarter the course is usually offered on the main campus with I indicating fall quarter; II, winter quarter; III, spring quarter; IV, summer quarter.

Courses numbered from 100 to 199 are ordinarily for freshmen or sophomores.

Courses numbered from 200 to 299 are for sophomores, juniors, or seniors and are not ordinarily open to freshmen.

Courses numbered 300 to 499 are ordinarily open to juniors or seniors but under exceptional circumstances may be taken by a student upon the recommendation of his or her adviser and with the written approval of the instructor of the course or the chair of the department concerned.

Courses which may be taken for graduate credit are listed in the *Graduate Catalog*.

Accounting (ACCT)

- ♦ **ACCT 221. Introduction to Accounting I** (4) I, II, III, IV. Financial accounting concepts and methodology for accumulation of business data and reporting of economic activities; financial statements required for external reporting and underlying theory. Prerequisite: completion of mathematics requirements or concurrent registration in MATH 125 or MATH 231 or consent of instructor.
- ♦ **ACCT 222. Introduction to Accounting II** (4) I, II, III, IV. Continuation of 221. Enterprise analysis, cost determination and control, and accounting data for managerial decision making. Prerequisite: ACCT 221.
- ACCT 320. Survey of Accounting** (6) I. For junior or senior wishing accelerated coverage of elementary financial and managerial accounting topics included in ACCT 221 and ACCT 222. Credit not granted for this course if ACCT 221 and ACCT 222 completed.
- ACCT 321. Intermediate Financial Accounting** (4) I, II, III, IV. Development and application of financial accounting concepts and generally accepted accounting principles; preparation of financial statements and accounting for current assets, valuation methods, recording procedures, alternative treatments and effect upon periodic income. Prerequisite: Grade of "C" or better in ACCT 221 and ACCT 222 or ACCT 320.
- ACCT 322. Intermediate Financial Accounting** (4) I, II, III, IV. Continuation of ACCT 321; emphasis on long-term assets, creditor and owner equities, accounting changes, and statement of changes in financial position. Prerequisite: Grade of "C" or better in ACCT 321.

ACCT 325. Accounting Concepts for Non-Business Students (4) II, III. Accounting concepts and procedures, and their contribution to administrative process; enterprise analysis; relevant data, its uses and limitations. Not applicable to pre-professional core requirements. Not open to students who have completed ACCT 221, or ACCT 222, or ACCT 320.

ACCT 327. Financial Accounting (4) II. Structure and theory of financial accounting. Evaluation of existing conventions and procedures pertaining to external reporting. No credit toward accounting concentration. Prerequisite: ACCT 222 or ACCT 320.

ACCT 331. Managerial Accounting I (4) I, II, III, IV. Methods of providing data for management decisions, including cost-volume-profit analysis, budgeting, and relevant costs; standard, job-order, and direct costing. Prerequisite: Grade of "C" or better in ACCT 221 and ACCT 222 or ACCT 320.

ACCT 332. Managerial Accounting II (4) I, II, III, IV. Continuation of managerial accounting; capital budgeting, divisionalized firms; process cost accounting, and determination of cost behavior. Prerequisite: Grade of "C" or better in ACCT 331.

ACCT 337. Managerial Accounting (4) III. Accounting concepts as tools for administrative evaluation and control of business operations. Nature, use, and reliability of accounting data in decision-making process; cost analysis and profit planning. No credit toward accounting concentration. Prerequisite: ACCT 222 or ACCT 320.

ACCT 340. Income Taxes-Individual (2) I. Primarily for nonaccounting students, any college. Income tax concepts: exclusion, deductions, exemptions, capital gains and losses. Credit cannot be earned in both ACCT 441 and this course.

ACCT 351. Auditing I (4) II, III, IV. Auditing procedures and practices of independent verification of financial records and reviews of operations as used by internal auditors and public accountants; nature of audit evidence; evaluation of internal controls. Prerequisite or corequisite: Grade of "C" or better in ACCT 322 or grade of "C" or better in ACCT 321, if concurrently registered for ACCT 322.

ACCT 395. Readings for Honors in Accounting (1-4) I, II, III. For superior junior student; individual reading program to broaden knowledge of accounting literature of particular areas on semi-independent basis. Prerequisite: academic standing in upper 20 percent of student's class, approval of department.

ACCT 409. Accounting Internship (1-4) I, III. Upon advance approval by program coordinator. Work experience and its evaluation in seminar must be completed in quarter following work experience. Not open to student with credit for any other 409 course in College of Business Administration. Graded S/U.

ACCT 421. Contemporary Financial Accounting Topics (4) II, III. Accounting for pensions and leases, financial statement interpretation, measurement of social performance, Security and Exchange Commission impact, segmental reporting, interim financial statements, and accounting for inflation. Prerequisite: Grade of "C" or better in ACCT 322.

ACCT 422. Advanced Financial Accounting (4) I. Theory and practice for partnerships, business combinations and consolidations; branch and home office accounting; financial reporting of multinationals, including foreign currency translation. Prerequisite: Grade of "C" or better in ACCT 322.

ACCT 423. Governmental and Institutional Accounting (4) III. Methods and problems of controlling and reporting on resources (funds) segregated for conducting specific activities of nonprofit-seeking entities; budgetary control. Prerequisite: Grade of "C" or better in ACCT 221 and ACCT 222 or in ACCT 320 or consent of instructor.

ACCT 424. Financial Reporting for Multinational Business Firms (3) III. Alternate years. Case study of worldwide accounting control and reporting problems, impact of cultural and legal constraints, and objective appraisal of various accounting principles and pronouncements. Text and cases. Prerequisite: Grade of "C" or better in ACCT 221 and ACCT 222 or ACCT 320 or consent of instructor.

ACCT 425. Accounting for Health Care Services (4) Accounting as tool for planning and controlling operations; assets, costs (expenses), and revenues. Recommendations of American Hospital Association and Hospital Financial Management Association considered. Not open to accounting majors. Prerequisite: ACCT 222 or ACCT 320.

ACCT 429. Problems in Accounting Practice (4) II. Comprehensive review and integration of accounting theory and practice using problem method. Prerequisite: 24 hours of ACCT and grade of "C" or better in ACCT 322.

ACCT 439. Role of the Financial Executive (4) III. Role of accounting in management planning and control; profit centers, discretionary costs, budgeting, strategy, and evaluation of enterprise performance. Prerequisite: Grade of "C" or better in ACCT 332 or in ACCT 337 or consent of instructor.

ACCT 441. Federal Taxation of Individuals (4) I, III, IV. History, assumptions, and objectives of federal tax system. Determination of individual's taxable and nontaxable incomes, capital gains and losses, deductions and exemptions, and special provisions. Reporting requirements and determination of tax liability. Introduction to federal tax research methodology. Prerequisite: Grade of "C" or better in ACCT 322.

ACCT 442. Federal Taxation of Corporations and Partnerships (4) II. Determination of taxable income and reporting requirements of corporations, partnerships, and Subchapter S corporations. Application of federal tax laws to special problems of corporations including stock redemptions, capital structure, liquidation (partial and complete), corporate accumulations. Overview of federal taxation of gifts, estates, and trusts. Prerequisite: Grade of "C" or better in ACCT 441.

ACCT 452. Auditing II (4) I. Types of auditor's opinions; auditing standards and ethics, professional responsibility and accountants' legal liability; statistical sampling as audit tool. Prerequisite: Grade of "C" or better in ACCT 351 or consent of instructor.

ACCT 491. Studies in Accounting (1-5). On demand. Investigation in depth of selected areas or contemporary problems. May be offered individually as well as in classes, depending on student needs and nature of material. Prerequisite: approval of department.

ACCT 495. Readings for Honors in Accounting (1-5) I, II, III. For superior senior specializing in accounting; individual reading program to broaden knowledge of accounting literature on semi-independent basis. Prerequisite: academic standing in upper 20 percent of student's class, approval of the department.

Accounting Technology (ACT)

† **ACT 231. Financial Accounting (4)**. Theory and application of generally accepted accounting principles; preparation of various financial statements; accounting treatment of various business transactions. Designed for associate degree in accounting only. Prerequisite: ACCT 222.

† **ACT 241. Cost Accounting (4)**. Treatment of financial information for management decision making; budgeting, cost-volume-profit analysis, relevant cost, job-order-cost systems, process cost systems, standard cost systems. Designed for associate degree in accounting only. Prerequisite: ACCT 222.

† **ACT 251. Federal Income Tax (4)**. Application of income tax laws and concepts for preparation of individual and small business federal income tax returns. Designed for associate degree in accounting only.

Aerospace Studies (AERO)

These courses are for Air Force ROTC. Successful completion of these courses can lead to a commission as an officer in the U.S. Air Force.

AERO 101. Aerospace Studies (1) I. Organization of United States Air Force; mission, function, and employment of strategic offensive forces; leadership laboratory activities.

AERO 102. Aerospace Studies (1) II. U.S. Air Force doctrine; mission, function, employment of U.S. strategic forces; general purpose forces; mission, resources, operation of tactical air forces; capabilities of Army in limited war and counterinsurgency; Navy and Marine Corps; leadership laboratory activities.

AERO 103. Aerospace Studies (1) III. U.S. general purpose forces continued; structure and mission of aerospace support activities; leadership laboratory activities.

AERO 201. Aerospace Studies (1) I. Development of air power to 1941. Various concepts of employment of air power and factors which have prompted research and technological change; examples of impact of air power on strategic thought; leadership laboratory activities.

AERO 202. Aerospace Studies (1) II. Development of air power 1941-1965. Various concepts of employment of air power and factors which have prompted research and technological change; examples of impact of air power on strategic thought; leadership laboratory activities.

AERO 203. Aerospace Studies (1) III. Development of air power 1965 to present. Various concepts of employment of air power and factors which have prompted research and technological change; examples of impact of air power on strategic thought; leadership laboratory activities.

AERO 301. Air Force Management (3) I. Integrated management course emphasizing individual as manager in Air Force milieu. Oral and written communicative skills; military writing and briefing formats; human behavior; individual behavior within formal organizational and historical development of management thought; leadership laboratory activities. Prerequisite: departmental approval.

AERO 302. Air Force Management (3) II. AERO 301 continued. Air Force leadership, discussion of classical leadership theory, i.e., trait, situational, interactional, Likert, 3-D, etc. Planning, organizing, coordinating, directing, and controlling functions of management, emphasis on Air Force application; command and staff concept; leadership laboratory activities. Prerequisite: departmental approval.

AERO 303. Air Force Management (3) III. AERO 302 continued. Junior officer as administrative leader; Air Force personnel system; use of civilian personnel in Department of Defense; management of change; organization and personal value conflicts; managerial strategies in changing world; leadership laboratory activities. Prerequisite: departmental approval.

* **AERO 362. Aerospace Studies: Flight Instruction Program (2)** II. Basic aerodynamics; aircraft systems, flight instruments; aircraft performance; medical facts; Federal Aviation Administration/ National Transportation Safety Board regulations; National Airspace System; flight publications; meteorology; weather services. Required of AFROTC 1P student. Special departmental approval required.

* **AERO 363. Aerospace Studies: Flight Instruction Program (2)** III. AERO 362 continued. Aviation map and chart interpretation; flight computer; deadreckoning and pilotage navigation; radio navigation; radio communications; airport operations; wake turbulence; flying safety. Required of AFROTC 1P student. Special departmental approval required.

AERO 411. Aerospace Studies (3) I. National security forces in contemporary American society; armed forces as integral element of society; American civil-military relations and environmental context in which defense policy is formulated; leadership laboratory activities. Prerequisite: departmental approval.

AERO 412. Aerospace Studies (3) II. Formulation and implementation of U.S. defense policy; framework of defense policy including domestic and international system; evolution of U.S. strategy Truman to Carter; leadership laboratory activities. Prerequisite: departmental approval.

AERO 413. Aerospace Studies (3) III. Strategy and management of conflict; arms interaction and control; limited war, insurgency, counterinsurgency, international terrorism. Initial Active Duty (IAD) Orientation. Leadership laboratory activities. Prerequisite: departmental approval.

AERO 461. Aerospace Studies: Flight Instruction Program (2) I. Aircraft operation, flight safety, rules of the air, instruction in advanced flight maneuvers, navigation techniques. Required of AF-ROTC 1P student. Prerequisite: Special departmental approval.

Aerotechnology (AERT)

(See technology)

American Studies (AMST)

AMST 200. Introduction to American Studies (4) I, II, III. Introduction to American culture with emphasis on regional, ethnic, and economic aspects of the national experience as reflected in verbal, visual, and material artifacts. Culture theory and models used to examine selected topics and problems. Required of all American studies majors.

AMST 230. Issues in American Civilization (4) I, II, III. Characteristically American themes, issues, or problems reflecting the relationships among ideas, values, traditions, events, and personalities. Subject matter designated in the schedule; may be repeated once if topics differ.

AMST 300. Interpretations of American Culture (4) III. Topics and themes in American life developed through selected inter-disciplinary approaches and demonstrating interrelationships in American culture. Prerequisite: junior standing or consent of instructor. May be repeated.

AMST 400. Senior Seminar in American Studies (4) II, III. Inter-disciplinary seminar of interest to students focusing on American culture, society, institutions, or economics in their fields of study. Selected topics, themes, or problems in American culture approached from interdisciplinary perspective. May be repeated once if topics are different. Prerequisite: senior standing or permission of instructor.

AMST 490. Tutorial in American Studies (1-5) I, II, III. For students who wish to work independently in special interdisciplinary subject not covered by existing courses. Prerequisites: junior standing; description of proposal, signed by proposed tutor, to be submitted for approval by undergraduate adviser in American Studies prior to quarter in which tutorial begins.

Applied Mathematics And Science (AMS)

† **AMS 100. Developmental Mathematics (5)**. Review of basic mathematics including whole numbers, fractions, decimals, square roots, ratio and proportion, metric systems, basic algebra, and plane geometry. Credit for this course does not apply toward graduation if credit for any other AMS or MATH course has been taken. Graded S/U.

*Credit cannot be granted for both AERO 362-363 and AERT 141 (private pilot).

- † **AMS 111. Mathematics-Physics I** (6). Applications of algebra, graphical analysis, logarithms, geometry, and trigonometry; scientific notation, measurement units, computation aids and techniques. Laboratory emphasizes techniques of measurement and application of mathematical ideas. Two 2-hour lectures, two 2-hour laboratories. Prerequisite: AMS 100 or passing score on the mathematics placement exam, section I.

Applied Statistics (STAT)**

- STAT 200. Using Statistics** (4). Descriptive statistics, common statistical measures, interpretation and misinterpretations of statistical techniques (statistical sampling, regression analysis, design of experiments). Does not count toward graduation credit for students receiving B.S. in B.A.
- ◆ **STAT 211. Elementary Statistical Methods I** (4) I, II, III. Elementary probability, random variables, probability distributions, sampling, descriptive statistics, and decision theory. Prerequisite: MATH 125 or MATH 231; or, preferably, concurrent registration in MATH 125 or MATH 231; nonbusiness students without MATH prerequisite should obtain consent of instructor.
- ◆ **STAT 212. Elementary Statistical Methods II** (4) I, II, III. Sampling distributions, estimation, hypothesis testing, regression, and correlation. Prerequisite: STAT 211.
- ***STAT 304. Introduction to Time Series Analysis** (2) I. Analysis of trend, seasonal, and cyclical components in time series; forecasting; index numbers. Prerequisite: STAT 212 or consent of instructor.
- ***STAT 306. Introduction to Sample Design** (2). Sampling techniques: simple random, stratified, cluster, systematic, others. Prerequisite: STAT 212 or consent of instructor.
- ***STAT 308. Introduction to Decision Theory** (2) II. Decision making under uncertainty; prior, posterior, and preposterior analysis. Prerequisite: STAT 212 or consent of instructor.
- ***STAT 311. Introduction to Regression and Design** (4) II, III. Regression analysis; topics in design of experiments. Prerequisite: STAT 212 or MATH 442 or consent of instructor.
- ***STAT 312. Introduction to Nonparametric Statistics** (2) III. Nonparametric methods; sign test; rank test; chi-square tests. Prerequisite: STAT 212 or consent of instructor.
- STAT 315. Introduction to Statistical Inference** (4) I. N-dimensional random variables and distributions; methods of estimation; hypothesis testing. Prerequisites: STAT 212 and MATH 231. Not open to students with MATH 442.
- STAT 402. Regression Analysis** (4) II. Linear, nonlinear, and multiple regression and correlation analysis. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 404. Time Series Analysis** (4) III. Stochastic stationary and nonstationary models; use in forecasting seasonal and nonseasonal discrete time series; fitting models to time series data. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 406. Sample Design** (4) I. Planning surveys; sampling as tool of scientific inference in management and research; bias and errors in sampling procedures; variances; sample size. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 408. Bayesian Decision Theory** (4) II alternate years. Statistical theory for decision making under uncertainty; integrating personal judgement with sample evidence via Bayes' Theorem; subjective probability, pay off and utility functions; prior, posterior, and preposterior analysis; value of sample information, decision rules, and optimal sample design; Bayesian inference versus classical inference. Prerequisite: STAT 315 or MATH 422 or consent of instructor.
- STAT 410. Experimental Design** (4) III. Constructing statistical designs and analyzing resulting data; basic experimental design and analysis of variance. Prerequisite: STAT 315 or MATH 442 or consent of instructor.
- STAT 412. Applied Nonparametric Statistics** (4). Nonparametric approach to testing hypotheses: contingency tables, goodness of fit, procedures based on ranks. Prerequisites: STAT 315 or MATH 442 or consent of instructor.
- STAT 414. Statistical Quality Control** (4) I. Statistical process control; Shewhart control charts (variables and attributes); acceptance sampling (single, double, and sequential); Dodge-Romig Tables. Prerequisite: STAT 212, or MATH 442 and one additional STAT course, or consent of instructor.
- STAT 491. Studies in Statistics** (1-5). On demand. Investigation of selected areas or contemporary problems. May be offered individually and in classes depending on student needs and nature of material.

Art (ART)

- ART 100. Early Admissions Art Program** (3) IV. Studio problems in drawing, design, and painting; foundational studio experiences and personal development of basic understandings, creative attitudes, and competencies in preparation for admission to college-level art major program. Six studio hours. Prerequisite: high school junior or senior status, portfolio, and recommendation from high school art teacher.

- ◆ **ART 101. Introduction to Art** (3) I, II, III. Basic principles of art form; experiences with elements of graphic expression; foundation course open to any nonmajor. Two lectures, two-hour studio.
- ◆ **ART 102. Drawing Foundations I** (3) I, II, III. Introduction to and application of principles of art relative to creation of two-dimensional form or organization. Required of all incoming art majors.
- ◆ **ART 103. Two-Dimensional Foundations II** (3) I, II, III. Development of drawing skills and functional understanding and skill in use of time and value for rendering of space and pictorial accuracy. Prerequisite or corequisite: ART 102.
- ◆ **ART 104. Two-Dimensional Foundations Composition** (3) I, II, III. Development and use of skills and concepts necessary to achieve high-level competence in graphic composition. Prerequisites: ART 102 and ART 103.
- ◆ **ART 112. Three-Dimensional Foundations I** (3) I, II, III. Introduction to creative application of principles of art pertinent to three-dimensional form organization emphasizing development of 3-D aesthetic and utilitarian concepts. Studio experiences based on experimentation with transitory media. Prerequisite: ART 102.
- ART 113. Development of Three-Dimensional Concepts** (3) II, III. Development of sophisticated concepts, 3-D form organization, use of tools and equipment in production of 3-D form in permanent media. Prerequisite: ART 112.
- ◆ **ART 145. Western Art I** (3) I, II, III. History of ancient and early Medieval art. Open only to freshmen and sophomores.
- ◆ **ART 146. Western Art II** (3) I, II, III. History of Medieval, Renaissance, Baroque, and Rococo art. Open only to freshmen and sophomores.
- ◆ **ART 147. Western Art III** (3) I, II, III. History of art from mid-18th century to present.
- ◆ **ART 205. Beginning Drawing from Life** (3) I, II, III. Principles and practice in creative and structural drawing; concepts and techniques required for competent graphic expression. Six studio hours. Prerequisite: ART 104.
- ART 206. Advanced Drawing from Life** (3) I, II, III. Advanced problems in drawing and composition. Six studio hours. Prerequisite: ART 205.
- ART 208. Specialized Drawing Techniques** (3) I. Media required by specialized directions in art. Research in wide range of graphic materials. Prerequisite: ART 103.
- ◆ **ART 211. Introduction to Graphic Design** (3) I, II, III. Problems in graphic design with orientation towards advertising layout. Lettering, typography, illustration as integral elements of layout. Prerequisite: ART 101 or ART 102 or consent of instructor.
- ◆ **ART 212. Introduction to Product Design** (3) I, II, III. Exploration problems emphasizing product design. Prerequisite: ART 104 or ART 112 or ART 113 or DESN 104 or consent of instructor.
- ◆ **ART 213. Introduction to Environmental Design** (3) I, II, III. Fundamentals, terminology, methods of communication and history of contemporary environmental design. Use of three-dimensional models as means of exploring design and presentation. Prerequisite: ART 112 or ART 113 or consent of instructor.
- ART 214. Lettering and Typography** (3) I, II, III. Ideas communicated through typographic design. Typography as essential part of visual communications. Type indication and specification. Prerequisite: ART 211.
- ART 230. Introduction to Art Therapy** (3) I, II, III. Theories, practices, literature of the profession. Prerequisite: ART 102 or ART 103 or consent of instructor.
- ART 252. Foundations for Teaching Visual Arts** (4) I, II, III. Lecture, laboratory, and field based experiences on teaching contexts and practices. Clinical analysis of instructional behavior and classroom interaction in art education settings. Prerequisite: sophomore standing.
- ART 261. Beginning Sculpture** (3) I, II, III. Creative arrangements of three-dimensional forms. Six studio hours. Prerequisite: ART 101 or ART 102. Lab fee.
- ART 263. Beginning Ceramics** (3) I, II, III. Basic techniques in forming, decorating, and firing of pottery. One lecture, four studios. Prerequisites: ART 101 or ART 102 and ART 112. Lab fee.
- ART 265. Weaving** (3) I, II, III. Fiber concepts as related to non-loom fiber techniques. Coiling, crochet, macrame, card weaving. Prerequisites: ART 102, ART 103, and ART 112. Lab fee.
- ART 277. Beginning Prints** (3) I, II, III. Basic graphic techniques and their potential in finished print. Six studio hours. Prerequisites: ART 104 and ART 205. Lab fee.
- ART 305. Advanced Drawing from Life** (3) I, II, III. ART 206 continued. May be repeated to six hours.

*Cannot be counted toward specialization in STAT.

**See also mathematics and statistics (MATH)

- ART 311. Advanced Design (3).** Offered on demand. Technical problems in design. Six studio hours. May be repeated to nine hours. Prerequisites: ART 211 and ART 212.
- ART 312. Print Advertising (3) I, II, III.** Translating works and ideas into visual realities of mass communication; magazines, newspapers, brochures, billboards, other modes. Prerequisites: ART 211 and ART 214, or consent of instructor.
- ART 313. Rendering (3) I, II, III.** Studio practice with professional techniques for presenting three-dimensional design on two-dimensional surface. Prerequisites: ART 212 and ART 213, or consent of instructor.
- ART 314. Modeling (3) I, II, III.** Visualization of product or space concept designs through models; use of all media to make transition from 2-D to 3-D. Prerequisites: ART 212 and ART 213, or consent of instructor.
- ♦ **ART 320. Enameling on Copper (3) I, II, III.** Vitreous enameling techniques on metal; aesthetics and design for plaques, plates, and bowls. Six studio hours. May be repeated to 12 hours. Prerequisite: ART 101 or ART 102 or consent of instructor. Lab fee.
- ART 321. Beginning Jewelry Design (3) I, II, III.** Metals in jewelry making; emphasis on design and fabrication techniques—soldering, sawing, filing, chasing, repousse, and stone setting. Six studio hours. Prerequisites: ART 101 or ART 102. Lab fee.
- ♦ **ART 322. Jewelry Design (3) I, II, III.** Centrifugal casting of silver, gold, brass, and bronze jewelry and related objects, using wax, plastic, and organic models. Six studio hours. Prerequisite: ART 321.
- ♦ **ART 325. Creative Photography (3) I, III.** Personal creative expression, individual perception, articulation, and interpretation. Six studio hours. Prerequisites: ART 101 or ART 102 or consent of instructor; JOUR 207 and JOUR 306 or VCT 282.
- ART 330. Art Therapy: Methods and Theories I (4) I, III.** Theoretical models, psychological, creative and educational, which have provided the cornerstones of art therapy; methods of making art experiences therapeutic. Lab fee. Prerequisite: ART 230.
- ART 331. Art Therapy: Methods and Theories II (4) II.** Four-week practicum emphasizing relationship of expressive art technique to clinical settings. Lab fee. Prerequisite: ART 330.
- ♦ **ART 343. Art for Elementary Teachers (3) I, II, III.** Experience with art materials and problems to develop creative attitude; based primarily on needs of children. Not open to art majors. Not for arts and sciences credit. Prerequisite: ART 101 or ART 102. Lab fee.
- ART 352. Approaches to Public School Art (4) I, II.** Theories of creative development in lecture/laboratory and field experiences. Lesson content selection, planning and presentation for visual arts. Not for arts and sciences credit. Prerequisites: ART 252 and EDFI 302. C/F hrs: 40.
- ART 353. Approaches to Art Curriculum and Supervision (4) II, III.** Clinical experiences related to development of instructional units for art curricula. Not for arts and sciences credit. Prerequisites: ART 252 and 352. C/F hrs: 20.
- ART 361. Sculpture (3) I, II, III.** Three-dimensional development in welding, metal casting, stone and wood carving, plastics, and plaster. Prerequisite: ART 261. Lab fee.
- ART 363. Ceramics (3) I, II, III.** Form, color, and texture as basic factors of ceramic design; glazes and techniques of potter's wheel. Courses must be taken in number sequence. Six studio hours. Prerequisite: ART 263. Lab fee.
- ART 364. Advanced Ceramics (3) I, II, III.** ART 363 continued. Six studio hours. Prerequisites: ART 102 and ART 363. Lab fee.
- ART 365. Weaving (3) I, II, III.** Weaving on four-harness loom. Aesthetic and technical approach for achieving an expressive art form. Prerequisite: ART 102 and ART 103 and ART 112 or consent of instructor. Lab fee.
- ♦ **ART 371. Beginning Watercolor Painting (3) I, II, III.** Technical possibilities of watercolor as medium. Six studio hours. Prerequisites: ART 104 and ART 112.
- ♦ **ART 372. Advanced Watercolor Painting (3) I, II, III.** ART 371 continued; aesthetic and technical approach. Six studio hours. May be repeated to nine hours. Prerequisite: ART 371.
- ♦ **ART 373. Beginning Oil Painting (3) I, II, III.** Possibilities and limitations of oil medium as means of achieving expressive art form. Six studio hours. Prerequisites: ART 104 and ART 112.
- ♦ **ART 374. Oil Painting (3) I, II, III.** ART 373 continued; individual approach. Six studio hours. May be repeated to nine hours. Prerequisite: ART 373.
- ART 377. Prints (3) I, II, III.** ART 277 continued; additional graphic techniques. Six studio hours. May be repeated to nine hours. Prerequisite: ART 277. Lab fee.
- ART 395. Workshop on Current Topics in Art (1-6) IV and/or selected quarters.** Short-term workshop in studio or art education with content and emphasis as directed by needs and interests. One or two clock hours per credit depending on type. Prerequisite: as announced for each workshop.
- ART 405. Advanced Drawing (3) I, II, III.** Conceptual imagery in drawings as completed visual statements; not exclusively concerned with human figure. May be repeated to nine hours. Prerequisite: ART 206.
- ART 411. Television Advertising Design (3) I, II, III.** Practical, professional approach to production of television commercials; conceptual thinking from rough ideas through finished storyboard. Prerequisites: ART 211 and ART 214 and RTVF 264, or consent of instructor.
- ART 412. Packaging and Promotion Design (3) II, III.** Package as attractive, informative product vehicle and its relationship to consumer purchase; value of promotional and collateral advertising and their relationship to product and advertising in general. Prerequisites: ART 211 and ART 214, or consent of instructor.
- ART 413. Corporate Identity Design (3) II, III.** Research and design of corporate identity program for existing or fictitious company. Number and type of design elements vary with company involved. Should be final course taken in graphic communications major.
- ART 414. Special Topics in Design (3).** On demand. In-depth study of a single topic or cluster of topics in design. May be repeated if topics are clearly different. Prerequisites: senior standing and consent of design area head.
- ART 415. Glassworking (3) I, III.** Free-hand-blown glass; building of all needed equipment and technology for craftsman. Six studio hours. May be repeated to six credit hours. Prerequisite: ART 112.
- ART 416. Product Design and Development (3) I, II, III.** Research, design and development of objects for mass production. Students encouraged to do in-depth projects requiring full quarter. May be repeated to nine hours. Prerequisites: ART 212 and ART 213, or consent of instructor.
- ART 417. Environmental Design (3) I, II, III.** Physiological sciences and use in contemporary environmental planning; space studied through projects dealing with types of space (proximate, communal, regional) and their functions. May be repeated to nine hours. Prerequisites: ART 213.
- ART 418. Senior Design Problems (3) II, III.** Specific design problem chosen from actual situation. Research, design, presentation as final project. Prerequisite: senior standing.
- ART 419. History of Design (3).** Theory and history of graphic and industrial design from 1850 to present.
- ART 421. Advanced Jewelry Design (3) I, II, III.** Advanced problems in jewelry design; casting and fabrication techniques. Six studio hours. May be repeated to 12 hours. Prerequisites: ART 321 and ART 322. Lab fee.
- ART 422. Jewelry Metalsmithing (3) III.** Traditional techniques of working both ferrous and nonferrous metals; emphasis on forging; raising, stretching, sinking, and hammer as primary tool. Six studio hours. May be repeated to six hours. Prerequisite: ART 421.
- ART 423. Jewelry Enameling (3) II.** Specialized course for students wishing to combine champleve, cloisonne, and plique-a-jour enameling techniques with jewelry. Six studio hours. Prerequisite: ART 421. Lab fee.
- ART 425. Advanced Problems in Creative Photography (3) I, III.** Advanced-level assignments in creative photography; development of personal direction; communicative potential of resulting images. Six studio hours. May be repeated to nine hours. Prerequisite: ART 325.
- ART 430. Special Topics in Art History (3).** On demand. Flexible format serving special areas of art history not covered by standard art history courses.
- ART 431. Art Therapy: Practicum (16) I, III.** Directing therapeutic art experience in selected mental health, medical, educational facility under supervision. Emphasis on practice rather than observation. Weekly seminar. Prerequisite: ART 331 or consent of instructor. Lab fee.
- ART 440. Modern Architecture (3) III.** Survey of 19th-20th century architecture in Europe and America.
- ♦ **ART 441. American Art I (3) I.** History of American art from colonial to Civil War; architecture, painting, and sculpture.
- ART 442. American Art II (3) II.** History of American art from Civil War to present; architecture, painting, and sculpture.
- ART 444. Preclassical Art (3) I.** Art and archeology of preclassical Aegean world to end of Bronze Age; Minoan and Mycenaean art.
- ART 445. Greek Art (3) II.** Art of Greece from Dark Ages through Hellenistic period; classical vase-painting, architecture, and sculpture.
- ART 446. Art of Etruria and Rome (3) III.** Etruscan and Roman sculpture, architecture, and painting from eighth century B.C. to fourth century A.D.

ART 447. Early Christian and Byzantine Art (3) II. Christian art to medievalization of Roman Empire in West; Byzantine art to fall of Constantinople in 1453.

ART 449. Late Medieval Art (3) III. Romanesque and Gothic art.

ART 451. Art of Italian Renaissance (3) I, II. Painting, sculpture, and architecture in Italy from 14th through 16th centuries.

ART 453. Art of Northern Renaissance (3) I. Renaissance art in Germany, Flanders, Switzerland, France.

ART 454. Baroque and Rococo Art (3) III. 17th and 18th century art in Italy, France, Spain, and low countries.

ART 455. Art of 19th Century (3) I. Art of 19th century in Europe from neoclassicism through impressionism.

ART 456. Early Modern Art (3) II. Art of Early modern period from post-impressionism to surrealism.

ART 457. Recent Modern Art (3) III. Art of recent past from surrealism to present.

ART 458. Art of India, S.E. Asia, and Indonesia (3) I. Art and architecture of India, South East Asia, and Indonesia from earliest times to 20th century.

ART 459. Art of China and Central Asia (3) II. Art and architecture of China and Central Asia from earliest times to present.

ART 460. Art of Korea and Japan (3) III. Art and architecture of Korea and Japan from earliest cultures to present.

ART 461. Advanced Sculpture (3) I, II, III. Six studio hours. May be repeated to 12 hours. Prerequisite: ART 361. Lab fee.

ART 463. Advanced Ceramics (3) I, II, III. Six studio hours. May be repeated to nine hours. Prerequisite: ART 364. Lab fee.

ART 465. Advanced Weaving (3) I, II, III. Fiber design, tapestry multiple harness, ikat and dye processes, leading to development of personal direction. May be repeated to six hours. Prerequisite: ART 365. Lab fee.

ART 466. Rug Design and Weaving (3) II, III. Specialized design approaches and weaving techniques related to flat and pile rug work; procedures and potentials of different materials; emphasis on completing rug. May be repeated to six hours. Prerequisites: ART 265 and ART 365.

ART 471. Advanced Watercolor (3) I, II, III. ART 372 continued. Six studio hours. May be repeated to 12 hours. Prerequisite: ART 372.

ART 473. Advanced Oil Painting (3) I, II, III. ART 374 continued. Six studio hours. May be repeated to 12 hours. Prerequisite: ART 374.

ART 477. Advanced Prints (3) I, II, III. ART 377 continued. Six studio hours. May be repeated to 12 hours. Prerequisite: ART 377. Lab fee.

ART 481. Multi-media for Art Curriculum (4) On demand. Laboratory design, production, use and evaluation of instructional materials appropriate to visual arts curricula. Not for arts and sciences credit. Prerequisite: senior standing. C/F hrs: 63.

ART 482. Art for Special Needs Children (4) III, IV. Art strategies and media adaptations for exceptional populations and alternative educational settings. Use of art for exceptional children in regular classroom. Not for arts and sciences credit. C/F hrs: 40.

ART 483. Teaching for Art Appreciation (4) On demand. Role of art in society; development of instructional units on art history, art criticism, aesthetic responding. Prerequisite: senior standing. C/F hrs: 29.

ART 488. Studio Teaching Practicum (4) I, II, III. Elective for selected art education majors to teach in "Art Emphasis: Children's Art Program."

ART 489. Design Internship (3-15) I, II, III, IV. Studio experience in chosen area design firm. Credit approved upon submission of portfolio and written description of experience in consultation with firm; elective hours only. Prerequisite: 15 hours of design, consent of the design staff.

ART 491. Individual Studies in Art (1-4). Supervised individual problems in selected studio areas, art education, or art history research for student who has shown proficiency and marked degree of independence in other course work. May be repeated. Prerequisite: consent of director.

ART 495. Workshop Topics in Art Education (1-4) IV. Special topics and intensive group studies relative to special needs of visual arts teachers. Prerequisites announced for each workshop.

Arts and Sciences (A&S)

A&S 100. Seminar in Arts and Sciences (2-8). Interdisciplinary studies in arts and sciences. Offered on sufficient demand or as area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

◆ **A&S 150. Introduction to the Library** (1) I, II, III. Basic research techniques for freshmen and sophomores including information retrieval, use of basic reference sources and materials. Credit not applicable to library science majors and minors. All research for term paper although completed paper not required. (At Firelands, field trip to another library included. Completion of ENG 111 recommended.) Graded S/U.

A&S 300. Seminar in Arts and Sciences (2-8). Interdisciplinary studies in arts and sciences offered on sufficient demand or as area of study meeting new trends in arts and sciences. May be repeated by consent of dean of college. Prerequisite: consent of instructor.

Astronomy (ASTR)

ASTR 110. Introduction to Astronomy (4) III. Solar system, local stars and clusters, nebulae, galaxies, and universe; modern cosmogonies and limitations for existence and evolution of life; methods of celestial observations. Not open to student with credit for GEOL 110.

ASTR 201. Modern Astronomy (4) I, III. Emphasizes recent astronomical discoveries; space travel among planets, birth and death of stars, supernovas, pulsars, black holes, x-ray stars, radio galaxies, quasars, extra-galactic phenomena, and origin of universe; some observational work. Not open to student with credit for PHYS 201.

ASTR 212. The Solar System (3) II. Planetary, solar, and space science. The moon, solar interior and atmosphere, solar/terrestrial relations, planetary structure and atmospheres, comets, asteroids, meteoroids, space exploration, origin of solar system.

ASTR 305. Life in the Universe (3) I. Possibilities for life on other planets and other star systems, methods for communicating with other intelligent life, movement of human life into space.

ASTR 307. Understanding the Cosmos (3) II. The universe as a whole; gravity, black holes, structure of space; other galaxies and the universal redshift; clusters of galaxies and other large-scale structure; big bang and steady state models; the three degree background radiation; first moments of creation.

ASTR 309. Astrophotography (3) III. Techniques of astronomical observation and photography; basic optics and techniques of amateur astronomers; small telescopes and 35 mm format. Prerequisite: ASTR 201.

ASTR 403. Stellar Structure and Evolution (4) III, alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states; red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 334 and consent of instructor. Not open to student with credit for PHYS 403.

ASTR 407. Recent Progress in Astronomy (4) III, alternate years. Stellar evolution, supernovas and pulsars, black holes, x-ray astronomy, structure of galaxies, radio galaxies, cosmology, quasars. Four lecture-discussions. Prerequisite: PHYS 334. Not open to student with credit for PHYS 407.

Biological Sciences (BIOL)

◆ **BIOL 101. General Biology: Man and His Environment** (5) I, II, III. Basic ecology and present environmental problems of air, water, and land pollution; human reproduction, and population dynamics. Four one-hour lectures, one two-hour laboratory. Not accepted toward biology major or minor.

◆ **BIOL 104. Introduction to Biology** (5) I, II, III. Basic concepts. The cell, metabolism, genetics, reproduction, development, evolution. Four one-hour lectures, one two-hour laboratory. Not accepted toward biology major or minor.

BIOL 108. Life in the Sea (4) I. Shore and ocean environments, variety and adaptations of marine life. Observations of Marine organisms in marine laboratory. Four one-hour lectures. High school biology recommended. Not accepted toward biology major or minor.

◆ **BIOL 110. Human Biology** (4) II, III. Basic human anatomy and physiology for nonmajors; how human organs work, singly and in systems, in health and disease; organ architecture as it relates to function. Four one-hour lectures.

◆ **BIOL 201. Concepts in Biology I** (5) I, II. Molecular and cellular biology and genetics. Three one-hour lectures, one three-hour laboratory, and one one-hour laboratory recitation.

◆ **BIOL 202. Concepts in Biology II** (5) II, III. Fundamental physiological systems and taxonomy and phylogeny of living organisms. Three one-hour lectures, two two-hour laboratories. Prerequisite: BIOL 201.

◆ **BIOL 203. Concepts in Biology III** (5) I, III. Darwinian evolution and population and community ecology. Three one-hour lectures, one three-hour and one two-hour laboratories. One Friday afternoon or Saturday field trip required. Prerequisites: BIOL 201 and BIOL 202.

◆ **BIOL 220. Introduction to Horticulture** (5) I, III. Handling cultivated plants; plant growth, development, propagation, soil pest control, light, temperature, and water. Prerequisite: BIOL 104 or consent of instructor.

BIOL 270. Marine Closed Systems (3) I. Theories and techniques of maintaining and studying living marine animals in closed salt water systems; chemical and nutritional studies. One two-hour lecture-discussion and three hours of laboratory. Prerequisite: BIOL 202 and CHEM 121 or equivalent and consent of instructor.

BIOL 301. Field Biology (5) III, IV. Local organisms, identification and natural history. Two four-hour lab-lectures per week. Not open to arts and sciences biology majors except with consent of instructor. Prerequisite: five hours of BIOL.

BIOL 313. Bacteriology (5) I, II, III. Methods of isolation, culture, and identification; physiological and applied aspects of microorganisms. Three lectures, two three-hour laboratories. Prerequisite: one year of chemistry and two courses in BIOL.

BIOL 321. Insect Pests I (4) I. Biology, ecology, and control of urban and other pest insects and related arthropods; environmental effects and physiological actions of insecticides; methodology and equipment used in pest management. Three two-hour periods. Prerequisite: 15 hours of BIOL.

BIOL 322. Vertebrate Pests II (4) II. Biology, ecology, and control of vertebrate pest animals; types and physiological action of avicides and rodenticides; epidemiology of zoonoses. Three two-hour periods. Prerequisite: 15 hours of BIOL.

♦ **BIOL 331. Human Anatomy and Physiology** (5) I, II, III. Skeletal, muscular, and nervous systems. Three one-hour lectures, two two-hour laboratories. Prerequisite: BIOL 104 or BIOL 202.

♦ **BIOL 332. Human Anatomy and Physiology** (5) I, II, III. Circulatory, respiratory, digestive, excretory, endocrine, and reproductive systems. Three lectures, two two-hour laboratories. Prerequisite: BIOL 104.

BIOL 343. Plant Biology (4) II. Plant kingdom, morphology, evolution, and economic importance of major plant groups. Two one-hour lectures, two two-hour laboratories. Prerequisites: BIOL 104 or BIOL 201.

BIOL 350. General Genetics (3) I, III. Theoretical and applied aspects of inheritance; molecular, chromosomal, and population levels of heredity. Three lectures. Prerequisite: BIOL 201 or consent of instructor.

BIOL 352. Laboratory in Genetics (2) I, III. Materials, methods, and terminology of genetics through experiments, problems, and demonstrations. Two two-hour laboratories. Prerequisite or corequisite: BIOL 350.

BIOL 354. Population and Community Ecology (3) II. Theoretical modern ecology: population structure, growth and regulation; life history patterns, niche theory; competition; predator-prey interactions; community structure and diversity; succession. Two one-hour lectures and one two-hour discussion period. Prerequisites: BIOL 203 and MATH 131.

BIOL 401. Introduction to Biological Research (2-6) I, II, III. For advanced student who has shown proficiency and marked degree of independence in work. Individual registration. Prerequisite: six quarters of BIOL and consent of instructor. May be repeated once, but only six hours may be applied toward major in biology.

BIOL 405. General Parasitology (5) I, II. Morphologic, taxonomic, economic, and other biological aspects of parasites. Four lectures, two two-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 or consent of instructor.

BIOL 406. Arthropod Vectors and Parasites (5) III. Biology and identification of disease-carrying, toxic, and parasitic arthropods. Three lectures, two two-hour laboratories or equivalent in field trips. Prerequisite: BIOL 201 and BIOL 202 and BIOL 203.

BIOL 407. Cell Physiology (5) II. Physiology of cells and relationship of chemical events to cell structure. Three lectures, one four-hour laboratory. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 and organic chemistry.

BIOL 408. Comparative Animal Physiology I (5) III. Nerve, muscle, and endocrine system function; water-ion regulation. Three one-hour lectures, one one-hour laboratory recitation, one four-hour laboratory. Prerequisite: BIOL 201 and BIOL 202 and BIOL 203 and organic chemistry or BIOL 411 or BIOL 413.

BIOL 409. Invertebrate Zoology I (5) I. Classification, biology, and physiology of lower invertebrates. Prerequisite: one course in BIOL or consent of instructor.

BIOL 410. Invertebrate Zoology II (5) II. Classification, biology, and physiology of invertebrates through lower chordates. Prerequisite: one course in BIOL or consent of instructor.

BIOL 411. Vertebrate Physiology (5) I. Organ system function in vertebrate animals; emphasis on human. Three one-hour lectures, one one-hour laboratory recitation, one three-hour laboratory. Prerequisite: BIOL 202 or equivalent and organic chemistry or consent of instructor. (Not open to students with credit for BIOL 332.)

BIOL 412. Field Experience (9) IV. Biotic communities in central and western U.S.; observation, identification of plants, animals; quantitative field work. Individual problems arranged for advanced students to maximum of nine hours. Prerequisite: consent of instructor.

BIOL 413. Comparative Animal Physiology II (5) II alternate years. Respiratory and circulatory systems, temperature regulation, and nutrition, correlated with environmental variables. Three one-hour lectures, two three-hour laboratories; term paper required. Prerequisites: BIOL 411 or BIOL 408 or equivalent and organic chemistry, and consent of instructor.

BIOL 414. Introduction to Plant Taxonomy (5) III, IV. Elementary principles of plant identification; construction and use of keys and manuals. Three two-hour lecture-laboratories, one one-hour discussion. Prerequisite: BIOL 202 or consent of instructor.

BIOL 415. Plant Anatomy (5) II. Development and mature structure of principal tissues of vascular plants; basic patterns and modifications of root, stem, leaf, and flower. Three lectures, two two-hour laboratories. Prerequisite: BIOL 202 or BIOL 343 or consent of instructor.

BIOL 416. Morphology of Vascular Plants (5) III, alternate years. Comparative structure and evolutionary trends in vascular plants. Three lectures, two two-hour laboratories. Prerequisite: BIOL 202 or BIOL 343 or consent of instructor.

BIOL 417. Plant Physiology I (5) I. Transport mechanisms, respiration, basic enzymology, mineral nutrition. Three lectures, one one-hour discussion, one two-hour laboratory; additional laboratory work arranged weekly. Prerequisite: 15 hours of BIOL and one year of laboratory chemistry.

BIOL 418. Plant Physiology II (5) II. Photosynthesis, plant hormones, photoperiodism, environmental physiology. Three lectures, one one-hour discussion, one two-hour laboratory; additional laboratory work arranged weekly. Prerequisite: 15 hours of BIOL and one year of laboratory chemistry.

BIOL 419. Animal Histology (5) III. Microscopic anatomy of vertebrates, origin of tissues and organs, relation of structure to function. Three recitations, two three-hour laboratories. Prerequisite: Three quarters of BIOL.

BIOL 420. Animal Behavior (4) III. Development, control, and evolution of behavior; emphasis on ecological and evolutionary aspects of social behavior. Two two-hour lecture-discussions, one three-hour laboratory. Prerequisites: BIOL 201 and 202 and 203.

BIOL 421. Microbiology (5) I, II. Eukaryotic and prokaryotic microbial life; methods of laboratory study, enrichment techniques, nutrition. Three lectures, two two-hour laboratories. Prerequisite: BIOL 313 or consent of instructor.

BIOL 422. Terrestrial Ecology (5) III. Organisms in relation to terrestrial environment. One four-hour and one three-hour lecture-laboratory, one two-hour discussion. Two weekend and one or more Saturday field trips required. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 or consent of instructor.

BIOL 424. Algology (5) III. Taxonomy, ecology, morphology of algae; emphasis on fresh water algae. Two one-hour lectures, two three-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203.

BIOL 425. Limnology (5) I. Freshwater biology; detection, measurement, analysis of environmental factors. Three lectures, two three-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203.

BIOL 426. Pathogenic Microbiology (5) III. Microorganisms causing common diseases of vertebrates. Three lectures, two two-hour laboratories. Prerequisites: BIOL 313 and BIOL 439. (BIOL 439 may be taken concurrently).

BIOL 431. Vertebrate Embryology (5) I. Developmental preliminaries of chordates; descriptive, comparative, and theoretical considerations of embryology. Three lectures, two three-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 or permission of instructor.

BIOL 432. Comparative Anatomy of Chordates I (5) II. Organogenesis and histogenesis of vertebrates; evolutionary significance of structural and developmental changes and relationships among integumentary, skeletal, muscular systems. Three lectures, two three-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 or permission of instructor. BIOL 431 and BIOL 432 recommended.

BIOL 433. Comparative Anatomy of Chordates II (5) III. Organogenesis and histogenesis of vertebrates; evolutionary significance of structural and developmental changes and relationships among circulatory, digestive, respiratory, excretory, reproductive, nervous, endocrine systems. Three one-hour lectures, two three-hour laboratories. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203 or permission of instructor. BIOL 431 and BIOL 432 recommended.

BIOL 434. Paleobotany (5) III alternate years. Morphology, evolution, geological distribution of fossil plants. Three lectures, two two-hour laboratories, several field trips. Prerequisites: BIOL 416 and GEOL 105 or consent of instructor.

BIOL 435. Entomology (5) I. Identification, structural adaptations, physiology, ecology, importance, and control of insects. Three lectures, two three-hour laboratories or equivalent in field trips. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203.

BIOL 436. Cytology (5) I. Cells, tissues, subcellular elements of organisms. Structure, biochemistry, function correlated. Three lectures, two three-hour laboratories. Prerequisite: 15 hours of BIOL.

BIOL 438. Endocrinology (5) II. Physiological, metabolic actions of selected endocrine glands; emphasis on mammals. Three one-hour lectures; one four-hour laboratory. Prerequisite: BIOL 408, or BIOL 411 and organic chemistry, or consent of instructor. Biochemistry recommended.

BIOL 439. Immunobiology (5) III. Immune state in animals, laboratory work on detection and identification of antigens and antibodies. Three lectures, two two-hour laboratories, one one-hour laboratory-recitation. Prerequisite: 200-level BIOL sequence. Genetics and biochemistry recommended.

BIOL 440. Aquatic Vascular Plants (5) I. Techniques and methods of collecting, preserving, identifying aquatic vascular plants; biology, ecology, geography of flora with respect to history since glaciation, recent changes, geographic affinities. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203. BIOL 414 recommended.

BIOL 443. Microbial Physiology (5) I. Chemical composition, metabolic activities of microorganisms; function in life of organism. Three one-hour lectures, two three-hour laboratories. Prerequisite: BIOL 313 and CHEM 307 or consent of instructor.

BIOL 446. Scanning Electron Microscopy (5) III. Theory and practice of scanning electron microscopy applicable to biological research; critical point drying, sample coating techniques, transmitted electron detection, energy-dispersive x-ray microanalysis, computational analysis of data. Prerequisite: permission of instructor. BIOL 436 recommended.

BIOL 447. Microbial Genetics (3) I. Molecular biology and genetic phenomena of bacteria and bacteriophage; mutagenesis and recombination. Three one-hour lectures. Prerequisites: six quarters of BIOL or consent of instructor. General genetics or biochemistry recommended.

BIOL 449. Cytogenetics (4) II. Structure, organization and behavior of chromosomes; their function, modification, evolution, and role in speciation. Three one-hour lectures and one two-hour laboratory. Prerequisite: BIOL 350 or BIOL 352 or consent of instructor.

BIOL 451. Evolution (3) II. Historical evidence for evolution. Modern evolutionary theory; modes of selection, speciation, complex adaptations, microevolutionary trends. Two lectures, one two-hour discussion. Prerequisites: BIOL 203 and BIOL 350.

BIOL 470. Special Topics in Biology (2-5) I, II, III. Selected topics or subject areas in life sciences. Prerequisite: permission of instructor; maximum of three enrollments, each with different topic, permitted for credit.

BIOL 472. Ichthyology (5) III alternate years. Major groups of freshwater fishes: systematics, life histories, physiology, ecology, evolution, biogeography. Three lectures, one two-hour and one three-hour laboratory. Saturday and/or weekend field trips required. Prerequisite: BIOL 203.

BIOL 473. Mammalogy (5) I alternate years. Identification, natural history, evolution zoogeography, physiology, ecology, behavior. Two lectures and two three-hour laboratories or equivalent field work. Prerequisite: BIOL 201 and BIOL 202 and BIOL 203 or consent of instructor.

BIOL 474. Marine Biology (5) II. Biological and oceanographic analysis of marine environment; ecology, populations, laboratory techniques. Two two-hour discussions, three hours of laboratory arranged. Prerequisite: one year of chemistry, invertebrate zoology, and consent of instructor.

BIOL 475. Marine Biology Field Trip (2) II. Field trip to marine environment and research station with collection and study of living marine fauna and flora; oceanographic analysis of environments, study on sea-going vessel using trawl and dredge; discussions of marine research by laboratory staff; tour of fishery station. Prerequisite: BIOL 474. Preregistration discussion and transportation fee required.

BIOL 476. Herpetology (5) III alternate years. Amphibians and reptiles; identification, habits, distribution, behavior. Three lectures, one two-hour and one three-hour laboratory or equivalent field work, all day and/or weekend field trip in spring. Prerequisites: BIOL 201 and BIOL 202 and BIOL 203.

BIOL 477. Ornithology (5) III. Structure, physiology, behavior, ecology, migration of birds; identification in field and laboratory. Three lectures, one two-hour and one three-hour laboratory or equivalent field work, all-day or weekend field trip in May. Prerequisite: 15 hours of BIOL.

***BIOL 478. Parasites of Marine Animals** (9) IV.

***BIOL 479. Marine Microbiology** (7) IV.

***BIOL 480. Problems in Advanced Histology** (4-9) IV.

***BIOL 481. Marine Botany** (6) IV.

***BIOL 482. Marine Zoology** (6) IV.

***BIOL 484. Marine Invertebrate Zoology** (9) IV.

***BIOL 485. Marine Vertebrate Zoology and Ichthyology** (9) IV.

***BIOL 488. Topics in Marine Science** (6-9) IV. Offered by Gulf Coast Research Laboratory staff. May be repeated for different titled topics as approved by marine science coordinator.

***BIOL 489. Special Problems in Marine Science** (3-9) IV.

BIOL 490. Seminar (2) I, II, III. Review of literature to acquaint student with research techniques and important work in various fields of biology. May be repeated, but only four hours may be applied toward a biology major. Prerequisite: 15 hours of BIOL.

BIOL 491. Readings in Biological Sciences (2) I, II, III. Independent readings on topics of current or specialized interest in biology. Not more than four hours may be applied to major or minor requirements. Prerequisite: permission of instructor.

BIOL 492. Biology Internship (1-5) I, II, III, IV. For biological sciences majors in cooperative education program. Written report required. May be repeated with permission. Only 5 hours can apply toward biology major or minor. Prerequisite: Permission of the departmental CEP representative. Graded S/U.

Business Administration (BA)

BA 100. Seminar in Business Administration (2-8). Interdisciplinary studies in business administration. New trends or concepts. Prerequisite: consent of instructor.

◆ **BA 102. Introduction to Business** (4) I, II, III. Market competition and change, nature and central role of management, our business environment. Open only to freshmen or sophomores.

BA 300. Seminar in Business Administration (2-8). Interdisciplinary studies in business administration; new trends or concepts in business administration. Prerequisite: consent of instructor.

◆ **BA 303. Business Communications** (4) I, II, III, IV. Effective communication in writing business letters, data sheets, and reports. Building oral and written communication skills for use in business and public organizations.

BA 305. Integrating Career and Family. For description see HOEC 305.

BA 325. Organization and Structure of Health Care Services Industry (4) I. Broad dimensions and areas of health care services organizations; internal administrative processes; perspectives on comprehensive health planning and policy administration; environmental linkages to community health services agencies.

BA 390. Introduction to Multinational Business (4) III. Environment encountered by U.S. enterprises engaged in business abroad; business practices and policies for foreign operations; international organizations.

BA 403. Government and Business (4). Relations of all echelons of government to businessman; instances where government controls, regulates, or otherwise exercises influence on actions of businessman.

BA 405. Business Policy and Strategy (4) I, II, III. Resource allocation through administrative policies; cases and simulation games. Prerequisites: senior standing and prior completion of all 300-level business core courses.

BA 406. New Enterprise Formation (4). Entrepreneurship; systematic decision making in small companies.

*Marine science courses are taught at affiliated Gulf Coast Research Laboratory, Ocean Springs, Mississippi. Complete descriptions of courses available from Mrs. C. Groat, marine science coordinator.

BA 409. Business Internship (1-4) I. Not open to student with credit for other 409 courses in College of Business Administration. Program must be approved in advance by college internship program director. Work experience must be completed within last year prior to graduation. Graded S/U.

BA 429. Health Care Internship (8) I, II, III, IV. Specific internship in one of following areas of administration: hospital, nursing home, governmental health agency, voluntary health agency, health research project administration, and mental hospital administration; minimum of 20 credits of elective studies aimed at preparing for internship selected with advice and consent of adviser. Graded S/U.

BA 440. Management of International Operations (3). Accounting, finance, marketing, management, and operational policies; practices and strategies appropriate for foreign operations. Selected case studies for specific problems. Prerequisite: BA 390.

BA 450. Current Issues in International Business (3). Specific problems confronting international business firms. Case studies and individual research on current problems for class presentation and discussion. Prerequisite: BA 440.

BA 491. Studies In Business Administration (1-4). On demand. In depth study of selected areas. Offered to individual student on lecture basis or in seminar depending on student needs and nature of material. May be repeated to eight hours.

BA 492. Studies in International Business Administration (1-4). On demand. Independent study on subjects related to international business not otherwise offered in curriculum. Reading, report, and research assignments. May be repeated to eight hours.

BA 495. Reading for Honors in Business Administration (1-4) I, II, III. Supervised, independent program of reading and study. Prerequisites: 3.0 accumulative GPA and consent of department.

Business Education (BUSE)

- ◆ **BUSE 101. Business Mathematics** (4) I, II, III. Mathematics of finance, merchandising, business ownership, taxation, and consumer problems.
- ◆ **BUSE 111. Beginning Typewriting** (3) I, II, III. Touch typewriting for personal and business use. Four class periods. Not open to students with high school credit in typewriting.
- ◆ **BUSE 112. Intermediate Typewriting** (3) I, II, III. Development of typewriting skill through improvement of technique and special problems. Four class periods. Prerequisite: one year of high school typewriting or BUSE 111.
- ◆ **BUSE 210. Advanced Typewriting** (3) I, II, III. Typewriting problems and projects: office production standards. Four class periods. Prerequisite: two years of high school typewriting or BUSE 112.
- ◆ **BUSE 211. Office Reprographics** (3) I, II, III. Uses, limitations, costs of modern office reproduction equipment, and processes including development of skill in use. Prerequisite: BUSE 112.
- ◆ **BUSE 213. Beginning Shorthand Theory** (3) I. Gregg Series 90 shorthand. Not open to students with high school credit in shorthand.

◆ **BUSE 214. Intermediate Shorthand Theory** (3) II. Continuation of Gregg shorthand; transcription. Prerequisite: one year of high school shorthand or BUSE 213.

◆ **BUSE 215. Advanced Shorthand Theory** (3) III. Speed in recording dictation and transcribing. Prerequisite: two years of high school shorthand or BUSE 214.

◆ **BUSE 220. Data Processing I** (3) I, II, III. Machine processing of data using various makes of small calculators—printing and electronic. Class periods plus assigned laboratories.

◆ **BUSE 230. Records Management** (3) I, II, III. Paperwork control from creation of records to final storage or destruction. Micrographics, automatic information systems, forms management.

◆ **BUSE 240. Business Problems of the Consumer** (4) I, II, III. Relationship of business practices to consumer activities. Ways of improving standard of living through developing competencies in buying, using goods and services, money management.

BUSE 301. Word/Information Processing (4) I, III, III. Organization and operation of word/information processing installations: language arts skills, text editing equipment, human aspect of word/information processing. Prerequisite: BUSE 112 or equivalent.

◆ **BUSE 311. Dictation and Transcription** (3) I. Dictation at high speed rates: emphasis on rapid, accurate transcription. Prerequisites: BUSE 112 and BUSE 215.

◆ **BUSE 313. Specialized Dictation and Transcription** (3) III. Shorthand and transcription competency in working with specialized areas—medical, legal, scientific. Prerequisite: BUSE 311.

◆ **BUSE 314. Internship in Business Education** (1-3) I, II, III. Supervised experience in local offices or businesses. Forty clock hours of work required for each hour of college credit. May be repeated to three hours. No more than one hour of credit may be granted for work in any one office or business firm. Graded S/U.

◆ **BUSE 321. Data Processing II** (3) I, II, III. Punch card and other input-output media in electronic data processing; computers and computer programming. Three class periods plus assigned laboratories.

◆ **BUSE 322. Data Processing III** (3) II. Electronic data processing and programming. Use of computer to process business and educational data. Three class periods plus assigned projects. Prerequisite: BUSE 321.

◆ **BUSE 335. Office Systems and Procedures** (3) II. Analysis of information flow in office and role of worker in office function. Considering current problems involving office employees.

BUSE 352. Basic Business in Secondary Schools (3) I, III. Principles, objectives, instructional and resource materials, and methods in basic business subjects. C/F hrs: 32.

BUSE 354. Accounting and Data Processing in Secondary Schools (3) I, II. Principles, objectives, and methods of teaching accounting and data processing; review of accounting cycle. C/F hrs: 26.

BUSE 356. Shorthand and Secretarial Practice in Secondary Schools (2) II, III. Principles and methods of teaching shorthand, transcription, and secretarial practice. C/F hrs: 20.

BUSE 358. Typewriting and Clerical Practice in Secondary Schools (2) II, III. Principles and methods of teaching typewriting and clerical practice. C/F hrs: 30.

BUSE 364. Distributive Education in Secondary Schools (4) I, III. Methods of teaching vocational and relative subject matter in distributive education.

BUSE 370. OWA Organization and Program Coordination (4) II. Prepares prospective Occupational Work Adjustment teachers to initiate and operate OWA program. Program background, philosophy, organization, coordination, student selection, youth organization.

◆ **BUSE 401. Secretarial Administration** (4) I, II, III. Procedures, skills, and knowledges for administrative-level positions. Prerequisites: BUSE 210 and BUSE 215.

BUSE 441. Consumer Economics in the Schools (4) II. Need for consumer economics. Organization and integration of consumer economics in school programs. Consumer and business background information.

BUSE 455. Administrative Management (3) III, IV. Administrative/office function in business organization; application of management principles to effective work control; work design, information handling, and data processing.

BUSE 461. Development of Instructional Materials in Distributive Education (4) I, II. Methods for developing teaching materials in distributive education.

BUSE 462. Coordination in Cooperative Vocational Education (4) I, III. Coordination in high school, post-high school, and adult education programs for vocational business and distributive education. C/F hrs: 14.

BUSE 463. Community Planning in Adult Vocational Education (4) II, III. Identification of adult needs, procedures for organizing and promoting adult programs, selecting and training adult leaders, and financing adult programs.

BUSE 465. Development and Administration of Vocational Education (4) I, II. Vocational education as sponsored by federal, state, and local legislation.

BUSE 466. Intensive Vocational Business and Office Education (4) I, II. Program construction, organization, improvement, implementation, evaluation, and development of program guides. C/F hrs: 34.

BUSE 467. Workshop in Business and Distributive Education (2-4) IV. Areas of current interest to teachers in business and distributive education. Possible areas include youth with special needs, cooperative education, vocational education for adults, intensive programs, post-secondary programs, and technical programs.

BUSE 470. OWA Curriculum and Instructional Procedures (4). Curriculum development for vocational work experience programs including instructional learning packets, course of study, teaching methodology, and techniques.

**The student with two semesters of high school typewriting and/or shorthand should enroll in BUSE 112 and/or BUSE 214. The student with four semesters of high school typewriting and/or shorthand should enroll in BUSE 210 and/or BUSE 215. Those who choose to enroll in lower level classes will not receive credit toward graduation.

BUSE 491. Studies in Business and Distributive Education (1-4) I, II, III. Offered on individual, seminar, or lecture basis. Treatment of selected areas in depth depending on student needs and nature of material. May be repeated to six hours. Prerequisite: consent of instructor.

Business Management Technology (BAT)

Courses in business management technology are not applicable to baccalaureate programs in the College of Business Administration, with the exception of BAT 102. Where appropriate, students with credit in business management technology courses may attempt to earn credit-by-examination in similar College of Business Administration courses.

- † **BAT 102. Introduction to Business Technology** (4). Introduction to business technical process including structure of business and functions of marketing, production, finance, personnel, technical processes of control, and responsibilities of business.
- † **BAT 200. Principles of Management** (4). Basic concepts, principles, processes, and functions of management and administration. Current practices and problems used for illustration. Topics grouped for instructional purposes under planning, organizing, leading and controlling. Objectives and decisions emphasized throughout. Three hours of lecture, three hours of field study.
- † **BAT 201. Personnel Management** (4). How management obtains, develops, utilizes and maintains an effective work force; recruitment and selection of employees, testing, interviewing, counseling, developing and compensating employees; emphasis on complex human problems that arise in work situations and alternative ways of coping with them. Three hours of lecture, three hours of field study.
- † **BAT 203. Production Management** (4). Analyze operations of the firm. Fundamentals of production, design of production systems, operations, coordination and control of production activity, major analytical tools for management. Three hours of lecture, three hours of field study. Prerequisite or corequisite: STAT 211.
- † **BAT 204. Marketing** (4). Introduction to organization, management, and practice of marketing by business firms. Three hours of lecture, three hours of field study.
- † **BAT 205. Human Relations in Business** (4). Analysis of reactions, interactions, attitudes and activities of individuals and groups within goal-seeking organization; leadership, morale, goal-oriented behavior; business relationships among supervisors and subordinates, informal groups, business and its clients; emphasis on development of effective human relations. Three hours of lecture, three hours of field study.
- † **BAT 206. Systems, Standards and Work Design** (4). Effective utilization and measurement of human effort; systems, planning theory, process analysis, methods analysis, job design. Three hours of lecture, three hours of field study. Prerequisite: BAT 203.
- † **BAT 207. Business Finance** (4). Funds allocation and acquisition process of the firm; financial planning, capital budgeting, capital structure, long-term and short-term financing. Three hours of lecture, three hours of field study. Prerequisite: ECON 202, ACCT 221.

- † **BAT 208. Advertising** (4). Design, layout, production and placement of advertising; historical and cultural precedents of modern advertising. Prerequisites: BAT 204 or permission of instructor.

- † **BAT 210. Principles of Banking** (3). Fundamentals of banking functions; language and documents of banking check processing, teller functions, deposit function, trust services, bank bookkeeping, and bank loans and investments.

- † **BAT 211. Money and Banking** (4). Basic monetary theory and policy, emphasis on function of the banking system in the economy; structure of commercial banking system, creation of bank deposits, Federal Reserve policy and operations, Treasury money market operations, the pricing of money, and international financing problems.

- † **BAT 212. Installment Credit** (3). Basic knowledge of installment credit and its administration; emphasis on establishing credit, obtaining credit information, and loan servicing and administration; inventory loans, rate structure and advertising.

- † **BAT 213. Real Estate Finance** (4). Home mortgage investment by savings and commercial banks; channeling of money into mortgages, home mortgage lendings, special purpose mortgages, and the administration of mortgage accounts.

- † **BAT 214. Banking Law** (4). Topics include consumer protection, real property, personal property and sales, the uniform commercial code, negotiable instruments and bank collections, and secured financing.

- † **BAT 250. Marketing Research** (4). Secondary information sources and technique alternatives, sampling, response, and interpretive problems. Computer analysis introduced. Prerequisite: BAT 204 or consent of instructor.

- † **BAT 291. Field Experience** (2-4). Ten weeks of work in an appropriate business field to be decided in consultation with student's adviser. Supervision is shared between work supervisor and adviser. Prerequisite: Permission of work supervisor and adviser.

Center for Educational Options (CEO)

CEO 100. University Seminar (2) I, II, III, IV. Introduces new students to academic and cultural life of University; understanding of purpose and value of higher education as it relates to general studies and prospective majors. Class activities and individual projects develop skills necessary for academic success. Graded S/U.

CEO 101H. Evaluating Social Controversies (5) I. Interdisciplinary inquiry in social sciences. Analysis of arguments through assumptions, ambiguity, data, and fallacies; formulation of conclusions and alternative inferences. Approved for social science credit. Taught as a package with CEO 102.

CEO 102H. Values Analysis (2) I. Primary value conflicts; consequences of particular value assumptions; value assumptions and decision making; alternative cultures and political ideologies in terms of basic values. Taught as a package with CEO 101.

- ◆ **CEO 121. Transition Course** (2) I, IV. Transition to University life through orientation to university facilities and options; activities stressing study skills and personal growth.

CEO 122. Capstone Seminar (2-5) I, II, III. Integration of themes, concepts, methodologies, and values presented in departmentally based courses of coordinated quarter. May be repeated up to 16 credits.

CEO 124. State Government (1) IV. Issues of government, governmental processes at local and state levels, societal and governmental influences on electoral process. For Boys' State students.

- ◆ **CEO 131. Career Planning and Decision Making** (2) I, II, III, IV. Intensive investigation of self in relation to academic and career planning, and opportunities within world of work; decision-making-theories and career research activities.

- ◆ **CEO 201. Independent Studies** (1-16) I, II, III, IV. Research or project design by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

CEO 290. Transitions — Career (4) IV. Combines CEO 121 and CEO 131 for summer transition quarter only. Students develop study skills and apply them to career planning portion of course. Provides transition to academic life.

CEO 395. Instructional Internship (2-4) I, II, III. Instructional assistance to faculty in seminar program. Prerequisite: by invitation only. Graded S/U.

- ◆ **CEO 401. Independent Studies** (1-16) I, II, III, IV. Research or project designed by student under general supervision of faculty member. Open to any sophomore, junior or senior. Contact Center for Educational Options prior to registration. Graded S/U.

Chemistry (CHEM)

Students who take two courses in any one of the following groups may not receive credit for both: CHEM 100, 111, 121, 131; CHEM 122, 132; CHEM 123, 133; CHEM 112, 306, 343; CHEM 213, 308, 445; CHEM 321, 450; CHEM 352, 431. Students should secure more detailed descriptions of these courses from department office, 110 Hayes Hall.

- ◆ **CHEM 100. Introduction to Chemistry** (4) I, II, III, IV. Non-laboratory examination of basic chemical concepts and role of chemistry in modern society. For students not majoring in sciences. (Course may not be counted toward chemistry major or minor.) Four lectures.

- ◆ **CHEM 111. Elementary Chemistry** (4) I, II, IV. Three lectures, one three-hour laboratory. Not accepted toward chemistry major or minor unless followed by CHEM 122. Prerequisite: two years of high school science and/or mathematics. MATH 090 recommended.

- ◆ **CHEM 112. Elementary Organic Chemistry** (4) II, III. Chemistry of carbon compounds. Three lectures, one three-hour laboratory. Not accepted toward chemistry major or minor. Prerequisite: CHEM 111.

- ◆ **CHEM 121. General Chemistry** (5) I, II, IV. Chemistry sequence for students majoring in sciences or premedical programs or liberal arts. Three lectures, one recitation, three hours of laboratory. Prerequisite: high school chemistry, algebra, and geometry, or CHEM 111. (Credit for graduation for CHEM 111 or CHEM 121 but not both).

- ◆ **CHEM 122. General Chemistry** (5) II, III, IV. CHEM 121 continued. Three lectures, one recitation, three hours of laboratory. Prerequisite: "C" or better in CHEM 121 or CHEM 131; CHEM 111 with consent of instructor.
- ◆ **CHEM 123. General Chemistry** (5) III, IV. CHEM 122 continued, including qualitative analysis. Three lectures, one recitation, three hours of laboratory. Prerequisite: CHEM 122.
- CHEM 131. General Chemistry** (5) I. General chemistry sequence for well-prepared student. Three lectures, one recitation, three hours of laboratory. Prerequisite: high school chemistry and consent of instructor. Corequisite: MATH 130 or MATH 131.
- CHEM 132. General Chemistry** (5) II. CHEM 131 continued. Emphasis on quantitative procedures in laboratory. Three lectures, one recitation, three hours of laboratory. Prerequisite: "C" or better in CHEM 131.
- CHEM 133. General Chemistry** (5) III. CHEM 132 continued. Three lectures, six hours of laboratory. Prerequisite: CHEM 132.
- CHEM 200. Bio-Organic Chemistry and You.** (3) I, II; III. Nonmathematical course for non-scientist in topics of contemporary concern; effect of chemistry on society, chemistry for the consumer, regulatory agencies, chemistry in the news, other topics in organic and biochemistry. Not open to freshmen; not accepted toward chemistry major or minor. No CHEM prerequisites.
- ◆ **CHEM 201. Quantitative Chemical Analysis** (5) I, II, III, IV. Theory and practice of quantitative analytical procedures; volumetric and gravimetric methods. Three lectures, six hours of laboratory. Prerequisite: CHEM 123.
- ◆ **CHEM 213. Elementary Biochemistry** (4) III, IV. Chemistry of life-support molecules. Three lectures, one three-hour laboratory. Not accepted toward chemistry major or minor. Prerequisite: CHEM 112 or CHEM 306.
- ◆ **CHEM 306. Organic Chemistry** (5) I, II, IV. Not accepted toward chemistry major. Four lectures, three hours of laboratory. Prerequisite: CHEM 123 or CHEM 133.
- ◆ **CHEM 308. Basic Biochemistry** (4) II, III. Structure, chemical, physical, and metabolic properties of bioorganic molecules. Four lectures. Prerequisite: CHEM 306. BIOL 104 and CHEM 201 recommended.
- ◆ **CHEM 309. Elementary Biochemistry Laboratory** (2) II, III. Basic biochemical analysis. One lecture and one three-hour laboratory. Prerequisite or corequisite: CHEM 308 or CHEM 445.
- CHEM 310. Chemical Information** (1-3) III. Communication and retrieval of scientific information; planning original laboratory investigation. May be repeated for total of three credit hours. Prerequisite: 20 hours of CHEM. Reading knowledge of German recommended.
- CHEM 313. Special Topics in Chemistry** (1-3) I, II, III, IV. Specific topics in chemistry of current interest. Offering may be initiated by either students or faculty. Not applicable toward minimum 48-hour major or 30-hour minor. May be repeated with different topics.
- CHEM 321. Survey of Instrumental Analysis** (4) II. Elementary instrumental methods of analysis for biology and med-tech majors. Two lectures, six hours of laboratory. Prerequisites: CHEM 201 and either PHYS 233 or both PHYS 215 and PHYS 216.
- CHEM 343. Organic Chemistry** (4) I, IV. Structure and reactivity of organic substances. Four lectures. Prerequisite: CHEM 123 or CHEM 133.
- CHEM 344. Organic Chemistry** (5) II, IV. Continuation of CHEM 343. Four lectures, one four-hour laboratory. Prerequisite: "C" or better in CHEM 343.
- CHEM 345. Organic Chemistry** (5) III, IV. Continuation of CHEM 344. Four lectures, one four-hour laboratory. Prerequisite: CHEM 344.
- CHEM 352. Physical Chemistry** (5) III. For student whose program does not require full-year course. Four lectures, one three-hour laboratory. Prerequisites: CHEM 201 and MATH 130. MATH 131 recommended. Prerequisite or corequisite: PHYS 215 and PHYS 216, or PHYS 233.
- CHEM 395. Workshop on Current Topics** (1-5). On demand. Intensive course on selected topics. Typically, an all-day or similar concentrated time format used. May be repeated if topics differ. Does not apply toward first 30 hours of minor or first 48 hours of major.
- CHEM 402. Numerical Applications in Physical Sciences** (1-3) II. Application of computational techniques to contemporary problems in physical sciences. Taught jointly as GEOL 402 and PHYS 402. Prerequisites: MATH 131, knowledge of Fortran programming, and CHEM 123 or CHEM 133.
- CHEM 413. Special Problems** (1-3) I, II, III, IV. Independent study and research. Three to nine hours of laboratory, one half-hour conference each week. Not applicable toward the minimum requirements of major or minor. Prerequisite: consent of instructor, 29 hours of CHEM, or consent of department, 2.5 minimum overall GPA. May be repeated, but no more than nine hours credit may be applied toward degree.
- CHEM 431. Physical Chemistry** (3) I, IV. Gases and thermodynamics. Three lectures. Prerequisite: CHEM 201, and MATH 232, and either PHYS 233 or both PHYS 215 and PHYS 216.
- CHEM 432. Physical Chemistry Laboratory** (2) I, II. Two three-hour laboratories; introduction to advanced laboratory techniques; glassblowing, statistical analysis, physical and electronic measurements; thermodynamics. Prerequisite or corequisite: CHEM 431.
- CHEM 433. Physical Chemistry** (4) II, IV. CHEM 431 continued. Electrochemistry, kinetics, quantum phenomena. Four lectures. Prerequisite: CHEM 431.
- CHEM 434. Physical Chemistry Laboratory** (1 or 2) II. One or two three-hour laboratories. Modern instrumentation applied to problems in kinetics and electrochemistry. Includes NMR, IR, and mass spectroscopy. Prerequisite: CHEM 432.
- CHEM 435. Physical Chemistry** (4) III, IV. CHEM 433 continued. Quantum chemistry, atomic and molecular structure. Four lectures. Prerequisite: CHEM 433.
- CHEM 436. Physical Chemistry Laboratory** (1 or 2) III. One or two three-hour laboratories. Approximately half devoted to application of laboratory computers to chemical systems. Prerequisite: CHEM 434.
- CHEM 440. Theoretical Organic Chemistry** (4) III. Theoretical concepts of structure and reactivity of organic compounds and reactive intermediates. Molecular orbital theory, stereochemistry. Four lectures. Prerequisite: CHEM 345. Prerequisite or corequisite: CHEM 435.
- CHEM 441. Advanced Organic Laboratory** (3) II. Modern laboratory and instrumental techniques and methods applied to synthesis and characterization of organic and organometallic substances. One lecture, six hours of laboratory. Prerequisite: CHEM 345.
- CHEM 445. General Biochemistry** (4) II. Structure, function, chemical and physical properties and kinetics of bioorganic molecules. Four lectures. Prerequisites: CHEM 345 and either CHEM 352 or both CHEM 431 and CHEM 432, or permission of instructor.
- CHEM 446. Biochemistry Laboratory** (2) II. Experimental techniques in biochemistry. One lecture, three hours of laboratory. Prerequisite or corequisite: CHEM 445.
- CHEM 447. General Biochemistry** (4) III. Metabolism, energetics, and regulation of bioorganic molecules. Four lectures. Prerequisite: CHEM 445.
- CHEM 449. Advanced Biochemistry Laboratory** (3) III. Research techniques. One lecture, and two three-hour laboratories. Prerequisite: CHEM 446 or permission of instructor.
- CHEM 450. Theory and Practice of Analysis** (5) I. Chemical instrumentation, electroanalytical methods. Three lectures, six hours of laboratory. Prerequisites: CHEM 434 and CHEM 435.
- CHEM 451. Instrumental Methods of Analysis** (4) III. Optical and chromatographic methods. Two lectures, six hours of laboratory. Prerequisites: CHEM 434 and CHEM 435.
- CHEM 453. Environmental Chemistry** (3) III. Sources, reactions, transport, and fates of chemical species in water, soil and air environments. Three lectures. Prerequisites: CHEM (or CHEM 201), CHEM 306 (or CHEM 345), and CHEM 352 (or PHYS 215).
- CHEM 460. Advanced Inorganic Chemistry** (4) II. Theoretical inorganic chemistry: chemical bonding, stereochemistry, acid-base chemistry, periodicity, nonmetal chemistry. Four lectures. Prerequisite: CHEM 431. Corequisite: CHEM 433.
- CHEM 461. Advanced Inorganic Chemistry** (3) III. Transition-metal chemistry, organometallic chemistry, bioinorganic chemistry. Three lectures. Prerequisite: CHEM 460. Corequisite: CHEM 435.
- CHEM 467. Environmental Toxicology** (4) I. Three lectures, one three-hour laboratory. Limited to students in the environmental toxicology planned program or by permission of instructor.
- CHEM 468. Environmental Toxicology** (5) II. CHEM 467 continued. Three lectures, two three-hour laboratories. Prerequisite: CHEM 467.
- CHEM 469. Environmental Toxicology** (5) III. CHEM 468 continued. Three lectures, two three-hour laboratories. Prerequisite: BIOL 468 or CHEM 468.
- CHEM 483. Advanced Topics in Chemistry** (1-4) I, II, III, IV. Rigorous study of specific topic of current interest. Not applicable toward minimum 48-hour major or 30-hour minor. May be repeated with different topics. Prerequisite: CHEM 345 or consent of instructor.

College Student Personnel (CSP)

CSP 480. Seminar in College Student Personnel (1-4). On demand. Analysis of issues, practices, and trends in post-secondary student personnel work.

CSP 481. Introduction to Residence Life for Paraprofessional (2) III. Philosophy, skills, competencies of program development and management of university residence units.

CSP 482. Peer Advising Skills (2) III. Development of fundamental human relations skills used by peer advisers: listening, interviewing, information sharing, decision making and problem solving.

CSP 485. Peer Advising Practicum (1-3) I, II, III. Supervised peer advising experience in appropriate predesignated setting. May be repeated with approval of department. Prerequisite: CSP 482 or consent of instructor.

Communication Disorders (CDIS)

(See speech communication)

Computer Science (CS)

- ◆ **CS 100. Computer Basics** (4) I, II, III, IV. Computer technology and related social issues. Students do programming using BASIC language. Hardware, software, applications in diverse areas. Problems concerning computerized services, data banks, governmental controls. Not open to students with credit in another CS or MIS course. Credit not applicable toward major or minor in computer science.
- ◆ **CS 101. Introduction to Programming** (5) I, II, III, IV. Algorithms; basic elements of Fortran; introduction to computer organization; structured programming techniques. Several programming assignments required. For students without extensive programming experience. Not open to students with credit for another CS or MIS course. Prerequisite: MATH 110 or two years of high school algebra.
- ◆ **CS 103. Fortran Programming** (4) I, II, III, IV. Fortran for students with extensive programming experience. Algorithms; structured programming techniques. Several programming assignments required. Prerequisite: prior programming experience in any computer language. Not open to students with credit for CS 101.
- ◆ **CS 104. Programming Techniques** (4) I, II, III, IV. Advanced topics in Fortran programming. Programming projects in several areas. Elementary data structures. Interactive computing using BASIC. Prerequisite: Grade of "C" or better in CS 101 or CS 103.
- ◆ **CS 180. Introduction to Programming** (1-4). Programming techniques in particular language. Credit not applicable toward major or minor requirements. May be repeated up to total of four hours, with consent of department.
- CS 200. Computers and Society** (2) II. Protection of personal privacy, cashless society, legal guidelines and controls. Impact of computers on various professions. Not a programming course. Prerequisite: CS 101 or CS 103. Not open to students with credit for CS 100 or MIS 200.
- ◆ **CS 201. Assembler Language Programming** (4) I, IV. Basic computer organization; data representations; addressing techniques. Assembler language of typical large computer. Prerequisite: CS 101 or CS 103.

◆ **CS 202. Systems Programming** (4) II. Continuation of assembler language introduced in CS 201. Principles of programming: subroutines and macros, recursion and reentrancy. I/O concepts. Large implementation project required. Prerequisites: CS 104 and CS 201.

CS 205. Data and File Structures (4) III. Complete coverage of PASCAL, including recursion and pointer variables. File processing (sequential, random; disk, tape; text, binary). External sorting with natural merging. Interactive text editing and utility routines. Prerequisite: CS 104.

CS 260. Business Programming Principles (4) I, II. Assembler language programming; hardware/software technology. Does not apply to major or minor in computer science. Not open to student with credit for CS 201. Prerequisite: MIS 200.

CS 305. Data Structures (4) I. Basic concepts of data organization; storage systems and structures; storage allocation and collection; searching and sorting. Use of PASCAL language. Prerequisite: CS 202 or consent of instructor.

CS 306. Programming Languages (4) III. BNF description of programming languages. Significant features of existing programming languages. Structure and comparison of languages for numeric and nonnumeric computation. Languages studied typically include PL/1, SNOBOL, and APL. Prerequisite: CS 205.

CS 307. Computer Organization (4) II. Components of digital computer systems: flip-flops, registers, adders, memory devices. Computer system organization: control structure, micro orders, addressing, interrupts. I/O. Prerequisite: CS 201.

CS 313. Elementary Mathematical Logic (4). Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for MATH 313.

CS 350. Numerical Methods (4) I. Solutions of equations. Error analysis. Simultaneous linear and nonlinear equations. Numerical differentiation and integration. Interpolation, and least squares approximations. Prerequisites: CS 104 and MATH 231. Not open to students with credit for MATH 350.

◆ **CS 360. Techniques of Cobol Programming** (4) I, IV. COBOL programming language and techniques for use: debugging techniques; report generation; table handling; sorting; file handling techniques; comparison with other languages; COBOL standards. Prerequisite: CS 101 or CS 103 or CS 260.

CS 363. Job Control Language (2) III. Executive languages for OS/370 and TOPS-20. Use of language processors and utility functions. Designation of tape and disk files. Catalogued and in-stream procedures. Prerequisite: CS 202 or CS 360.

CS 390. Practicum in Computer Science (1-8). For students working in industrial co-op program. Written report required. Does not apply to major or minor in computer science. May be repeated to eight hours. Prerequisite: consent of department. Graded S/U.

CS 400. Reading Fortran (1). FORTRAN programming as practiced in natural sciences. Prerequisites: MATH 131 and three-course sequence in BIOL, CHEM, PHYS, or GEOL. Does not apply to major or minor in computer science.

CS 406. Programming Language Design (4) I. Design concepts for programming languages. Structured programming. Preprocessors. Languages for special application areas. Current topics in language design. Prerequisite: CS 306.

CS 407. Advanced Computer Organization (4) III. Evolution of computer systems. Detailed studies of several selected computer organizations; comparison of functional components and overall designs. Prerequisite: CS 307.

CS 408. Operating Systems (4) I. Structure of operating systems. Physical input-output, buffering, interrupt processing. Memory, processor, device, information management; resource management interdependencies. Prerequisites: CS 306 and CS 307.

CS 409. Language Translation Systems (4) II. Design and operation of various types of translators (assemblers, interpreters, compilers, decompilers, macro processors). Lexical and syntactic analysis, code generation and optimization, self-compilers, bootstrapping, tracing and debugging aids. Prerequisite: CS 306.

CS 410. Formal Language Theory (4) II. Various types of languages (context-sensitive, context-free, finite-state). Discussion of recognition devices such as pushdown automata, linear bounded automata, and Turing Machines. Some topics of current interest.

CS 420. Artificial Intelligence and Heuristic Programming (4) Definition of heuristic vs. algorithmic methods. Topics from areas of game playing programs, theorem proving, pattern recognition, question answering programs, natural language processing, music composition by computers. Programming project or report usually required. Prerequisite: CS 305.

CS 425. Computer Graphics (4) III. Graphic I/O devices: plotter, CRT, plasma panel, light pen, etc.: vector generation; display processors; transformation; clipping and windowing; hidden line removal; interactive techniques; data structures for graphics; various display algorithms and graphic languages. Prerequisites: CS 305 and MATH 222 or consent of instructor.

CS 428. Mini-Micro Computers (4) I, II. Architecture of mini and micro computers; programming techniques; operating systems and translators. Detailed study of specific minicomputer and microcomputer systems. Prerequisite: CS 202.

CS 429. Mini-Micro Applications (4). Comparison of various mini-microcomputer systems; selection configuration, and evaluation of computers and peripherals; interfacing considerations; case studies of applications; communication protocols. Project generally required. Prerequisites: CS 408 and CS 428.

CS 440. Optimization Techniques (4) I. Linear programming, game theory, PERT, network analysis; duality theory and sensitivity analysis; applications. Computer programs written to implement several techniques. Prerequisites: CS 104 and MATH 231.

CS 442. Techniques of Simulation (4) III. Principles of simulation and application of several simulation languages to both continuous and discrete systems. Prerequisites: CS 104 and MATH 231.

CS 451. Numerical Analysis (4) I. Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation; zeros of polynomial and transcendental functions; numerical differentiation and integration; solution of linear systems by direct and iterative methods. Selected algorithms programmed for solution on computer. Prerequisites: CS 101 or CS 103, and MATH 332. Not open to students with credit for MATH 451.

CS 452. Numerical Analysis (4) II. Matrix inversion; computation of eigenvalues and eigenvectors of matrices; least squares, trigonometric, and Chebyshev approximation; numerical solution of initial value and boundary value problems in ordinary differential equations, numerical solution of partial differential equations. Prerequisites: CS 101 or CS 103, and MATH 337. Not open to students with credit for MATH 452.

CS 462. Database Management Systems (4) II, IV. Concepts of organizing data into integrated database. Hierarchical, network, and relational approaches studied. Prerequisite: CS 360.

CS 490. Independent Project (1-4). Readings and/or computer implementations in area of interest to individual student. Does not apply to major or minor in computer science. May be repeated up to eight hours.

CS 492. Special Seminar in Computer Applications (1-8). Prerequisite: consent of instructor. May be repeated up to total of eight hours.

Computer Science Technology (CST)

† **CST 171. Terminal Operations (1).** Remote entry terminals, operating systems, command-line, operation of local terminal interpreter related to operation of RJE; visits to operation site. Prerequisite: enrollment in CST program and permission of instructor. Hours arranged.

† **CST 221. Systems and Procedures I (3).** Analysis of business information systems; designing a business system, file design, audit controls. Techniques for implementing basic systems such as principles of flowcharting, systems documentation, and business forms control. Two hours of lecture, two hours of laboratory. Prerequisite: knowledge of a programming language.

† **CST 231. Techniques of RPG Programming (4).** Basic elements in programming techniques using the RPG II Language. Further work on file organization, table look-up, JCL, chaining, records, and error analysis. A problem-oriented language to maximize time spent on solutions rather than machine characteristics.

† **CST 232. Systems and Procedures II (4).** Continued study of principles in the design and application of data processing systems in business. Analysis of cost controls, operations research, and the integrated management information system. Two hours of lecture, four hours of laboratory. Prerequisite: CST 221 and CS 360, or consent of instructor.

† **CST 260. Advanced Electronic Data Processing (4).** Extended programming techniques using the BASIC language and word processing; accessing files, arrays, systems analysis, system design, string operations, layout forms and structured programming. Prerequisite: MIS 200 or CS 104.

† **CST 291. Student Intern Program (4).** Ten weeks of paid field work in data processing applications under the supervision of a governmental, industrial, or private business concern. Prerequisite: permission of instructor.

Construction Technology (CONS)

(See technology)

Criminal Justice (CRJU)

CRJU 210. Introduction to Criminal Justice (4) I, III. Philosophical, historical, operational aspects of criminal justice agencies and processes in a framework of social control in a democracy. Crime and corrections problems and response of criminal justice agencies to them.

CRJU 220. Law Enforcement Organization and Administration (4) I. Organization and management applied to law enforcement agencies. Theoretical and practical aspects of management factors such as organization, decision making, values, human relations, power. Prerequisite or corequisite: CRJU 210.

CRJU 230. Criminal Investigations (4) I. Investigator's role in criminal investigations. Theoretical considerations of that role in relation to other police activities. Techniques of preservation of evidence, sources of information, processes of specialized investigations. Prerequisite or corequisite: CRJU 210.

CRJU 240. Policy-Community Relations (4) I. Relationships between community and police; attitudes and perceptions; emphasis on human relations methodology in improving relationships; role of police administrator. Prerequisites or corequisites: CRJU 210 and SOC 101 and PSYC 201.

CRJU 250. Technical Aspects of Law Enforcement (5) III. Theoretical and practical problems relating to technical aspects of law enforcement: preservation of physical evidence, fingerprinting, firearms identification, photography, polygraph, stress analysis, handwriting analysis. Emphasis on problems relating to use of these techniques rather than on mechanical aspects of the techniques. Prerequisite: for law enforcement majors, CRJU 210; for others, permission of instructor.

CRJU 310. Criminal Law (4) I. Elements of proof in crimes of frequent concern in law enforcement; emphasis on principal rules of criminal liability, penal statutes, current case law. Law of arrest, search and seizure; theoretical consideration of criminalization of conduct and appropriateness of criminal sanctions. Prerequisite: for law enforcement majors, CRJU 210; for others, permission of instructor.

CRJU 480. Special Problems in Criminal Justice (4) III. Consideration and evaluation of selected policies and practices in criminal justice field, both law enforcement and corrections; attempt to integrate criminal justice field and to focus on common problems and concerns. Problems of theoretical and practical nonconvergence. Individual research interests explored, formalized, reported. Required of all CRJU majors. Prerequisites: senior standing and completion of 25 hours of CRJU courses, or equivalent.

CRJU 490. Independent Study in Criminal Justice (1-5) I, II, III, IV. Student designs and carries out study or special project in area of interest. Prerequisite: consent of program director. May be repeated. Graded S/U.

CRJU 491. Practicum (2-16) I, II, III, IV. Experience working in law enforcement and/or correction agency under supervision. Emphasis on practice rather than observation. May be repeated. Prerequisite: permission of program director. Graded S/U.

CRJU 493. Practicum Seminar (1) I, II, III, IV. Analysis of issues, problems, areas of continued learning needs, and proposed methods of intervention in various areas of criminal justice. Corequisite: CRJU 491. Graded S/U.

Design Technology (DESN)

(See technology)

Economics (ECON)

ECON 100. Development of the American Economy (4) I, II, III. Study from colonial times to present to provide perspective for understanding current economic problems. How Americans lived, changes in population and income distribution, agriculture, industry, technological change, labor, transportation, money and banking, foreign trade, role of government.

♦ **ECON 200. Introduction to Economics (4) I, II, III.** Alternative economic goals: economic growth, full employment, price stability, fair income distribution, economic security, economic freedom, consumer sovereignty, efficiency. Recommended for students taking only one ECON course. Not open to students required to complete ECON 202.

♦ **ECON 202. Principles of Economics (4) I, II, III.** Demand and supply; price theory; product and factor markets; income distribution; comparative systems; current problems and public policy. Recommended before ECON 203. Prerequisite: sophomore standing.

♦ **ECON 203. Principles of Economics (4) I, II, III.** American economy, national income and employment, banking system, monetary and fiscal policy; economic growth and development; international economics. Prerequisite: sophomore standing. ECON 202, recommended.

ECON 302. Intermediate Microeconomic Theory (4) I, II, III. Theory of demand; of the firm; of production and distribution; economics of pure competition, monopoly, and imperfect competition. Factor price determination. Prerequisites: ECON 202 and ECON 203.

ECON 303. Intermediate Macroeconomic Theory (4) I, III. Concepts and measurement of national income. Analysis of forces determining level of national income and employment, price level, and rate of economic growth. Prerequisites: ECON 202 and ECON 203.

ECON 304. Managerial Economics (4) I, II, III. Application of economic theory to decision-making problems of the firm; demand analysis and sales forecasting; theory of production and cost analysis; pricing practices and policies; capital budgeting. Prerequisites: ECON 202 and ECON 203 and STAT 212.

ECON 311. Money, Banking, and Public Policy (4) I, II, III. Nature and functions of money and commercial banking system. Means of monetary regulation and control. Role of money and monetary policy in affecting total economic activity. Prerequisite: ECON 202 and ECON 203.

ECON 321. Labor Economics (4) I, III. Economics of manpower employment and labor market; labor organizations, collective bargaining, regulation of labor by government, wage determination, unemployment and social security. Prerequisites: ECON 202 and ECON 203.

ECON 322. Labor Relations Policy (4) I. Economic effects of government policy towards organized labor. Collective bargaining implications of pertinent federal and state legislation. Prerequisite: ECON 203.

ECON 323. Poverty, Unemployment, and Income Maintenance (4) III. Structural and cyclical unemployment, alternative responses to poverty, evaluation of training programs and welfare schemes. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 331. Public Finance (4) III. Public expenditures, taxation, and debt; emphasis on federal level. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 332. State and Local Government Finance (4) II. Economic functions of state and local governments; revenue sources, expenditure mixes, debt, and inter-governmental fiscal relations. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 336. Economics of Public Expenditures (4) I. Purposes and economic effects of governmental expenditures; budgeting techniques and their effects on resource allocation. Prerequisites: ECON 202 and ECON 203.

ECON 341. Transportation Economics (4) II. Government regulation of transport industries and transportation's role in economy; industry costs and pricing policies. Prerequisites: ECON 202 and ECON 203.

ECON 351. International Trade and Finance (4) I. Structure and regulation of foreign trade; mechanics of international finance; new elements in U.S. foreign trade. Prerequisites: ECON 202 and ECON 203.

ECON 361. Introduction to Urban and Regional Economics (4) I. Economic problems and analysis pertaining to urban centers and regions; location theories; theories of urban and regional development. Prerequisites: ECON 202 and ECON 203.

ECON 371. Economic Development (4) III. Obstacles to and current efforts for promotion of economic growth in emerging nations. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 372. Comparative Economic Systems (4) III. Economic structures, conditions, problems, and policies in selection of countries. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 400. Mathematics for Economists (4) I. Elementary mathematical methods and basic applications to economic theory. Not open to students who have had MATH 231 or above.

ECON 401. Mathematical Economics (4) III. Economic theory in mathematical context; microeconomic and macroeconomic models, their structure and analysis. Constrained optimization. Prerequisites: ECON 400 or two quarters of calculus, and ECON 302 or ECON 303.

ECON 402. Econometrics (4) II. Mathematical techniques in formulating models of economic theory; statistical techniques used to measure economic data and to test validity of theoretical models. Prerequisites: STAT 212 and ECON 400, or two quarters of calculus; or consent of instructor.

ECON 404. Business Conditions (4) III. Business fluctuations covering statistical measurement, components of gross national product, methods of forecasting, theories of fluctuations, problems of stabilization. Prerequisites: ECON 303 or ECON 311, and STAT 212.

ECON 414. Monetary and Fiscal Policy (4) II. Objectives, means, and history of monetary and fiscal control; effect on total economic activity. Prerequisite: ECON 303 or ECON 311.

ECON 423. Labor-Management Relations (4) II. Employer-employee relations; collective bargaining process; conciliation, mediation, arbitration procedures. Prerequisite: ECON 203.

ECON 424. Income, Wages, and Welfare: Analysis and Policy (4). On demand. Theories of income and wage determination. Effect of employers and labor organizations and economic effects of various income policies. Prerequisites: ECON 202 and ECON 203.

ECON 425. Health Care Economics (4). On demand. Economic analysis of health care delivery system in U.S. Consumer's demand for health care, supply of health care by physicians and hospitals, evaluation of policy issues relating to health care. Prerequisites: ECON 202 and ECON 203.

ECON 435. Environmental Economics (4). On demand. Methods and research techniques applicable to environmental problems; evaluation of alternative public economic policies for environmental control. Prerequisites: ECON 202 and ECON 203.

ECON 447. Economics of Regulated Industries (4) III. Historical development of public regulation of certain industries; methods of regulation and evaluation of public policy towards regulated industries. Prerequisites: ECON 202 and ECON 203.

ECON 451. International Economics (4) II. Theory of international economics; international trade as factor in national income; significance of international investment; public policies to promote trade; international economic cooperation. Prerequisite: ECON 351 or consent of instructor.

ECON 452. International Monetary Economics (4) III. Alternative international monetary systems; emphasis on present system. Prerequisites: ECON 311 and ECON 351, or consent of instructor.

ECON 453. Economy of Latin America (4). On demand. Economic aspects of Latin American development and growth: structure of economy, applicable models of economic development, thought of leading Latin American economists, current problems and policies. Prerequisite: ECON 351 or consent of instructor or director of Latin American studies program.

ECON 459. Urban Economics (4) II. Economic problems of city development; urban-suburban relationships; urban planning and renewal. Prerequisites: ECON 202 and ECON 203.

ECON 460. Regional Economics (4) III. Regions and regional growth; significance of factor movements and technological change for growth and development of sub-national economic areas; analytic models and techniques. Prerequisite: ECON 361 or consent of instructor.

ECON 461. Real Estate Finance (4) III. Market factors affecting residential property values, private sources of funds, role of governmental agencies in residential markets. Prerequisites: ECON 202 and ECON 203. Not for arts and sciences credit.

ECON 471. Industrial Organization: Study of Business Size and Competition (4) II. Forces that lead to large corporations and resulting impact of that size on competition; public policy designed to cope with business size. Prerequisite: ECON 202 or consent of instructor.

ECON 473. History of Economic Thought (4) I. Development of economics and economic analysis from Adam Smith to J.M. Keynes. Prerequisites: ECON 202 and ECON 203.

ECON 474. Soviet Economy (4) On demand. Resources, structure, operation of Soviet economy today; planned goals of system, institutions and policies used in attaining them. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 475. Economics of Public Education (1-4). Education as investment in human capital; financing of education and relationship to federal monetary and fiscal policies and to state and local government finance. Prerequisites: ECON 202 and ECON 203 or consent of instructor.

ECON 476. Seminar in Contemporary Economic Problems (4). On demand. Interested students should consult with chair of department.

ECON 491. Studies in Economics (2-5). On demand. Treatment of selected areas in depth. Offered to individual on lecture basis or in seminar depending on student needs and material. May be repeated to eight hours.

ECON 495. Readings for Honors in Economics (4-9) I, II, III. For economics major with accumulative GPA of 3.0; normally culminates in treatise or comprehensive examination which must receive approval of department. Consult department chair. Prerequisite: consent of department.

Education, College of (EDCO)

EDCO 331. Student Teaching (15) I, II, III. Required of students in secondary school or special certification program. Classroom teaching under supervision provided on full-day basis. Conferences and seminars supplement program. Fee: \$36. Eligibility requirements listed in Undergraduate Catalog must be met. C/F hrs: 300. Graded S/U.

EDCO 332. Student Teaching (3-11) I, II, III. Upon advice of program faculty and consent of Office of Student Teaching. May be repeated to 22 hours. Special fee assessed. Graded S/U.

EDCO 381. Student Teaching (15) I, II, III. Required for elementary and/or kindergarten-primary certification. Classroom teaching under supervision on full-day basis. Conferences and seminars supplement program. Fee: \$36. Eligibility requirements must be met. C/F hrs: 300. Graded S/U.

EDCO 382. Student Teaching (3-11) I, II, III. Upon advice of program faculty and consent of Office of Student Teaching. May be repeated to 22 hours. Special fee assessed. Graded S/U.

EDCO 490. Problems in Education (1-5). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department.

Education, Special (EDSE)

EDSE 311. Exceptional Child in Regular Classroom (3) I, II, III, IV. Teaching exceptional handicapped children in alternative settings. C/F hrs: 10.

EDSE 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually met within time format. May be repeated on approval of adviser.

EDSE 421. Young Handicapped Child in Early Childhood Classroom (4) III. Knowledge and skills essential to functioning of general education teacher in mainstreamed early childhood classroom.

EDSE 431. Education of Exceptional Children (4) I, II, III, IV. Problems of exceptional school children: mentally retarded, learning and behavior disorders, speech-and-hearing-handicapped, visually handicapped, gifted and creative; etiology, diagnosis, personal-social problems, and prognosis. C/F hrs: 11.

EDSE 432. Principles and Purposes of Special Education (3) I, II, III, IV. Functions of public schools and governmental agencies in providing educational services for exceptional children.

EDSE 433. Education of Mentally Retarded Children (3) I, II, III, IV. Understanding and teaching educable and trainable mentally retarded children: etiology, diagnosis, theory, educational procedures. C/F hrs: 20.

EDSE 434. Language Arts for Educable Mentally Retarded (5) I, II, III, IV. Practical measures for reading, writing, spelling, oral and written communication. Methods and materials appropriate to developmental levels of educable mentally retarded children. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451.

EDSE 435. Arithmetic and Science for Educable Mentally Retarded Children (3) I, II, IV. Functional approach for developing appropriate sequence of skills and knowledge. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451.

EDSE 436. Social Studies for Educable Mentally Retarded Children (5) I, II, III, IV. Selection, organization, and development of units or social studies cores. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451.

EDSE 437. Occupational Orientation and Job Preparation for Educable Mentally Retarded Children (4) III, IV. Responsibilities of special class teacher for developing employable skills. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451. C/F hrs: 25.

EDSE 438. Problems in Evaluating, Selecting, and Adapting Specialized Instructional Materials for Exceptional Pupils (3) I, II, III, IV. Analysis, comparison, and use of materials with pupils of specified exceptionality in terms of educational and administrative merit. Prerequisites: EDSE 431 and EDSE 451; or consent of department.

EDSE 439. Introduction to Study of Trainable Mentally Retarded Children (3) I. Known causes of severe retardation and psychological and developmental problems.

EDSE 440. Curriculum Development and Methodology for Teaching Trainable Mentally Retarded Children (3) I, II, IV. Materials and techniques emphasizing development and appropriate skills with practical applications. Prerequisites: EDSE 431 and EDSE 451 and EDSE 433; or consent of instructor.

EDSE 441. Education of the Gifted and Talented Child (4) I, IV. Nature and needs of gifted and talented, identification techniques, curriculum planning and development, teaching strategies and techniques, resources and materials available to teachers and individuals, program evaluation for gifted and talented.

EDSE 442. Applied Classroom Management with Exceptional Children (3) I, II, III, IV. Arrangement of classroom environments for handicapped individuals which facilitate learning, recording, charting, and analyzing behavior. Reinforcement schedules, criteria for selection of reinforcement schedules; application of therapy and communicating effective management programs to parents. Prerequisites: EDSE 431 and 433. C/F hrs: 15.

EDSE 443. Practicum with Exceptional Children (3) I, II, III. Individual observations, participation, and supervised practicum experiences. May be repeated to nine hours. Prerequisite: consent of instructor. C/F hrs: 44. Graded S/U.

EDSE 445. Sheltered Workshop-Function and Relationship to Special Education (3) III, IV. Sheltered workshops in rehabilitation of mentally retarded. Techniques for job analysis and analyzing skills for specific jobs and job areas. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451.

EDSE 447. Elementary Methods for the EMR Learner (4) I, II, III, IV. Materials, methods, individualized instruction and evaluation of K-6 model curricula programs. Prerequisites: EDSE 431, 433, 442, 451, 457, or consent of department. C/F hrs: 20.

EDSE 448. Secondary Methods for the EMR Learner (4) I, II, III, IV. Materials, methods, individualized instruction and evaluation of 7-12 model curricula programs. Prerequisites: EDSE 431, 433, 442, 451, 457, or consent of department. C/F hrs: 20.

EDSE 451. Educational Understanding of Children with Learning and/or Behavior Disorders (4) I, II, III, IV. Multiple origins and educational significance of specific learning disabilities and/or behavior disorders. C/F hrs: 15.

EDSE 453. Educational Evaluation of Children with Learning Disabilities and/or Behavior Disorders (4) I, II, III, IV. Identification and analysis of specific learning disorders or disabilities as direct or contributing factors in educational and behavioral failures of otherwise educationally competent children. Prerequisites: EDSE 431 and EDSE 451; or consent of department. C/F hrs: 15.

EDSE 454. Educational Procedures for Children with Learning Disabilities and/or Behavior Disorders (5) I, II, III, IV. Special methods, materials, and behavior-management techniques used in teaching children with specific learning disorders or disorders of behavior; includes practicum experience. Prerequisites: EDSE 431 and EDSE 451.

EDSE 455. Secondary Methods II for LD/BD Children (4) I, II, III, IV. Materials, methods, individualized instruction and evaluation of 7-12 model curricula programs. Prerequisites: EDSE 431, 433, 442, 451, and 457. C/F hrs: 20.

EDSE 456. Educational Neuropsychology of the Exceptional Child (4) I, II, III, IV. Theories and research related to the function and development of the brain as related to language, speech, reading, writing, spelling, mathematics. Major attention given to brain dysfunction, assessment, instructional approaches. Prerequisites: EDSE 431, 433, and 451.

EDSE 457. Parent Education and Interaction (3) I, II, III, IV. Approaches for educators in communicating with parents of handicapped children. Counseling parents of these children and their families; understanding the legislated rights of the handicapped child and the role of educators/parents in providing instruction. Prerequisites: EDSE 431 and 433.

EDSE 458. Elementary Methods for LD/BD Children (4) I, II, III, IV. Materials, methods, individualized instruction and evaluation of K-6 model curricula programs. Prerequisites: EDSE 431, 433, 442, and 451, or consent of department. C/F hrs: 20.

EDSE 461. Introduction to Education of the Deaf (3) I. History and philosophy of education of the deaf. Structure of ear and causes of deafness. Organization, support, and maintenance of programs for deaf and hard-of-hearing children. Types of instruction: oral method, combined method, Rochester method, acoustic method. Prerequisites: EDSE 431 and EDSE 451. C/F hrs: 15.

EDSE 462. Introduction to Methods of Teaching Elementary School Subjects to Deaf and Hard-of-Hearing Children (3) II. Methods of teaching pre-school and primary elementary school subjects. Prerequisites: EDSE 431 and EDSE 451 and EDSE 461. C/F hrs: 15.

EDSE 463. Advanced Methods of Teaching Elementary School Subjects to Deaf and Hard-of-Hearing Children (3) III. Methods of teaching intermediate and junior high subjects. Use of communication skills in all content subject areas. Preparing pupils to enter regular high schools or special colleges. Prerequisites: EDSE 431 and EDSE 451 and EDSE 461 and EDSE 462. C/F hrs: 15.

EDSE 464. Basic Language Instruction for Acoustically Handicapped Children (3) I. Systems of teaching language. Principles of grammar essential to any system of language instruction. Development of oral and written language readiness. Prerequisites: EDSE 431 and EDSE 451. Special education majors only. C/F hrs: 15.

EDSE 465. Advanced Language Instruction for Acoustically Handicapped Children (3) II. Development of functional language usage in both oral and written form in symbolic systems of communication and ideation for acoustically handicapped child. Prerequisites: EDSE 431 and EDSE 451 and EDSE 464. C/F hrs: 15.

EDSE 470. Education of Multi-Handicapped Children (3) IV. Educational dynamics, strategies, logistics, and responsibilities involved in socialization and education of multi-handicapped children. Prerequisites: EDSE 431 and EDSE 433 and EDSE 451. C/F hrs: 15.

EDSE 490. Problems in Education (1-6). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department.

Educational Administration And Supervision (EDAS)

EDAS 409. Organization and Administration of Education in American Society (4) I, II, III, IV. Local, state, and federal involvement in American education as related to society. Teacher interrelationships; classroom management, school finance, legal issues, job placement and professional relations, teacher evaluation, school-community relations, current educational issues and politics of education as related to societal control. Prerequisites: EDFI 302 and junior status. C/F hrs: 20.

EDAS 413. Administration of School Discipline and Student Behavior Problems (4) I, II, III, IV. On demand. Student behavior problems and school discipline in educational setting; methods for analyzing problem behavior; comprehensive positive process approach to dealing with student behavior problems and school discipline.

EDAS 460. Workshop in Teacher's Role in Staff Problems (4).

EDAS 490. Problems in Education (1-5). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department.

EDAS 498. Workshop in Community Resources (4) IV.

Education Curriculum And Instruction (EDCI)

EDCI 100. Developmental Reading: Comprehension, Vocabulary, and Study Skills (2) I, II, III, IV. Designed to improve study habits and basic skills of vocabulary and comprehension; efficient notetaking, time management, test-taking procedures. Minimum score of 40th percentile on comprehension and vocabulary test is necessary to receive a "C" or better. Lab fee: \$5.

EDCI 101. Speed Reading (2) I, II, III, IV. Designed to improve reading speed; adjusting reading speeds to purposes, material difficulty, and background experience of reader. Minimum score of 260 words per minute with 60th percentile comprehension on reading speed test is necessary to receive "C" in course. Prerequisite: departmental testing or successful completion of EDCI 100. Lab fee: \$10.

EDCI 202. Exploring the Profession (3) I, II, III, IV. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; participation possible in elementary and secondary settings. Two class hours per week held as seminar on campus: one hour spent analyzing teacher roles with introduction to study of education; second hour is observation of classrooms in settings such as urban, suburban, rural through viewing videotapes made in area schools.

EDCI 221. Early Childhood Education Competency Development I (3) II, III. Analysis of identified performance competencies for professionals who work with young children. Creating safe and healthy learning environment for infants and toddlers that helps build child's self-concept. One one-hour seminar weekly plus minimum of 30 hours field participation and weekly consultation.

EDCI 321. Early Childhood Education Competency Development II (3) II, III. Analysis of identified performance competencies for professionals who work with young children. Carrying out supplementary responsibilities related to children's program, applying child management techniques and beginning to initiate activities that advance preschool child's self-concept as well as physical and intellectual competence. One one-hour seminar weekly plus minimum of 30 hours of field participation and weekly consultation. Prerequisite: EDCI 221.

EDCI 351. Social Studies in Elementary Schools (3) I, II, III, IV. Teaching social studies in grades K-6. Objectives, content, learning experiences, instructional resources, evaluation of teaching, learning in the classroom. Clinical and field experiences in teaching social studies with children. C/F hrs: 30.

EDCI 352. Mathematics in Elementary School (3) I, II, III, IV. Teaching of modern mathematics in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching, and evaluation. Laboratory work may be in elementary school or in clinical work on campus. Prerequisites: MATH 241, and EDFI 302 or EDFI 342. C/F hrs: 30.

EDCI 353. Science in Elementary Schools (3) I, II, III, IV. Teaching of science in grades K-6. Objectives, curriculum, materials of instruction, methods of teaching, and evaluation. Four lecture-laboratories. Prerequisite: EDFI 302 or EDFI 342. C/F hrs: 30.

EDCI 355. Teaching of Reading in Elementary Schools (3) I, II, III, IV. Theory of developmental reading including teaching procedures, setting objectives, designing curriculum, using instructional materials and evaluation. C/F hrs: 30.

EDCI 356. Language Arts in Elementary Schools (3) I, II, III, IV. Teaching language arts. Overview, study of language, developmental procedures in guiding growth in oral communication, listening, handwriting, spelling, and written expression. Prerequisite: EDFI 302 or EDFI 342. ENG 380 recommended. C/F hrs: 30.

EDCI 357. Kindergarten-Primary Curriculum and Methods (4) I, II, III, IV. Objectives, curriculum, instructional and resource materials, methods. Laboratory experience in kindergarten-primary education. Should precede quarter of student teaching. Prerequisite: EDFI 302 or EDFI 342. C/F hrs: 30.

EDCI 358. Modern Foreign Languages in Elementary Schools (4) II. Objectives, methods, curricula, instructional and resource materials in foreign language teaching in elementary school. Open only to elementary education major with language minor or consent of instructor. Prerequisite: EDFI 302 or EDFI 342.

EDCI 359. Individualization of Reading Instruction in Classroom (5) I, II, III, IV. Use of diagnostic measures and materials to aid teacher in developing individual student's learning and reading capabilities. Behavioral objectives, organization of classroom, sequencing skills, developing own materials and diagnostic teaching. Prerequisite: EDCI 355 or consent of instructor. C/F hrs: 25.

EDCI 360. Content Reading for Specialized Subject Areas (3) I, II, III, IV. Designed for pre-service teachers seeking certification in specific subject areas at elementary and/or secondary levels. Participants become acquainted with reading needs of students in content area class. Prerequisites: early field experience and EDFI 302. C/F hrs: 30.

EDCI 370. General Teaching Methods in Secondary Schools (3) I, II, III. General processes and issues that form the basis of instruction in all content areas; development of strategies and teacher behaviors associated with effective instruction; critical elements of planning, implementing, evaluating instruction, application of those elements in clinical/field setting. Prerequisite: EDCI 202 or EDFI 202 and EDFI 302. C/F hrs: 35.

EDCI 371. English in Secondary Schools (4) I, II. Philosophies of, experiences in, and methods for teaching of English in secondary schools. Prerequisite: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 372. Speech in Secondary Schools (4) I. Principles, objectives, instructional and resource materials, and methods for teaching of speech in secondary schools. Field experience required. Prerequisite: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 373. Foreign Language Education in the Schools (4) III. Principles of second language learning; theory and practice of K-12 curriculum, development of fundamental skills and abilities in teaching listening, speaking, reading, writing in foreign language; techniques of instruction planning; concepts of teaching culture. Prerequisites: EDCI 302 and junior standing. C/F hrs: 30.

EDCI 374. Mathematics in Secondary Schools (4) I, II, III. Principles, objectives, curriculum, materials, and methods of teaching mathematics in secondary schools. Observation and participation in local secondary schools. Two lectures and three laboratories. Prerequisite: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 375. Science in Secondary Schools (4) I, II, III. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching science in secondary schools. Two lectures and three laboratories. Prerequisite: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 376. Social Studies in Secondary Schools (4) I, II, III. Principles, objectives, curriculum, instructional and resource materials, and methods of teaching social studies in secondary schools. Prerequisite: EDFI 302 and junior standing. C/F hrs: 40.

EDCI 377. Computer Science in Secondary Schools (4) III. Principles; objectives; curricular, instructional and resource materials; methods of teaching computer science in secondary schools. Prerequisite: EDFI 302.

EDCI 378. Journalism Methods for High School Teachers (4) II. Principles, objectives, curriculum, materials, methods of teaching mass media in secondary schools. Observations and participations in area schools. Prerequisites: EDFI 302 and junior or senior standing. C/F hrs: 40.

EDCI 383. Teaching Foreign Language Skills K-12 (4) I. Developing advanced skills and abilities in teaching listening, speaking, reading, writing in foreign languages applied to K-12 curriculum; classroom management, testing and evaluation; individualized instruction; use of media in classroom; incorporation of culture in foreign language classroom. Prerequisite: EDCI 373. C/F hrs: 40.

EDCI 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

EDCI 401. Contemporary Secondary Education (4) IV. Secondary school problems in curriculum, organization, planning, and methods in relation to historical, philosophical, psychological, and sociological backgrounds.

EDCI 420. Developmental Reading in Content Areas (4) I, II, III, IV. Orients academic subject matter teacher and prospective reading teacher with developmental reading process as it applies to various subject matter areas. Concepts and delivery systems related to readiness, vocabulary, word analysis, comprehension, flexibility, and study skills. Procedures for organizing reading programs at intermediate (middle school), and secondary levels. C/F hrs: 40.

EDCI 423. Investigations in Teaching of Arithmetic (4) II, IV. Research in mathematics education as it affects elementary schools. Theories of learning, clinical practice with pupils from local schools, curriculum studies, classroom materials. Recommended prerequisite: EDCI 352 or EDCI 374. C/F hrs: 15.

EDCI 424. Investigations in Teaching of Elementary Social Studies (4) II, III, IV. Analysis of patterns and principles of organization of social studies in elementary school. Teaching materials and procedures.

EDCI 425. Investigations in Teaching of Language Arts (4) I, II, III, IV. Language arts in elementary school, nature and interrelationships of various components, objectives for teaching and development and evaluation of language learnings, materials and methodology.

EDCI 426. Investigations in Teaching of Elementary Science (4) II, IV. Analysis of science concepts and principles which are developed; nature of materials and methodology and design of evaluation procedures.

EDCI 427. Investigations in Environmental Education (4) I, III, and on demand. Investigations of methods, curricular materials and instructional techniques used in environmental education. Interdisciplinary approach, action projects, gaming-simulation, field work and environmental encounters. Prerequisites: PSYC 201, and EDFI 302 or EDFI 304.

EDCI 428. Investigations into Teaching of Social Studies Grades 7-12 (4). Analysis of patterns and principles of organization of social studies in grades 7-12. Traditional and non-traditional methodology, alternative approaches to individualizing instruction, simulations and games, and "new" social studies curriculum.

EDCI 490. Problems in Education (1-5). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to six hours; undergraduate credit only. Prerequisite: consent of department. C/F hrs: 20.

Educational Foundations And Inquiry (EDFI)

EDFI 202. Exploring the Profession (3) I, II, III, IV. Supervised experience in schools with seminar sessions on campus. Students spend one-half day per week for five weeks in each of two school settings working as teacher participants; possible participation in elementary and secondary setting. Two class hours per week held as seminar on campus; one hour spent analyzing teacher roles with introduction to study of education; second hour is observation of classrooms, in settings such as urban, suburban, and rural, through viewing video-tapes made in area schools.

EDFI 302. Educational Psychology (4) I, II, III, IV. Theory and research on learning, development, personality, and motivation applied to educational processes in various learning environments. Some field or clinical work. Prerequisite: PSYC 201 and sophomore status. C/F hrs: 20.

EDFI 342. Psychology of Childhood (4) I, II, III, IV. Behavior and development of children through elementary school age. Prerequisite: PSYC 201. EDFI 302 recommended.

EDFI 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. Requirements usually met within time format. May be repeated on approval of adviser.

EDFI 402. Assessment and Evaluation in Education (4) I, II, III, IV. Assessment and evaluation applied to instructional procedures; construction of assessment tools; interpretations of assessment results. Prerequisite: EDFI 302 and one methods course. C/F hrs: 20.

EDFI 408. Education In a Pluralistic Society (4) I, II, III, IV. Ideas and assumptions in education. Development of dynamic and personal philosophy of education. Prerequisites: EDFI 302 and junior standing. C/F hrs: 10.

EDFI 411. Teachers' Role in Guidance (4) I, II, III. Human relations and classroom management practices which teachers may use to meet affective and cognitive learning needs of students; practical application counseling and guidance techniques and strategies which encourage positive classroom climate. Prerequisite: senior standing.

EDFI 412. Education of Disadvantaged (3) II. Effects of socioeconomic deprivation on educational performance; teaching techniques appropriate to needs and characteristics of disadvantaged student. Prerequisites: education methods and EDFI 302.

EDFI 415. Spaceship Earth Seminar (4) II, or on demand. Integrating, synthesizing, environmental education seminar for upperclass and graduate students. Using inquiry approach, participants consider relationships of humankind with total environment.

EDFI 416. Philosophy of Environmental Education (4) III and on demand. Concepts and processes of environmental education including theories such as Toledo model, strand approach, Environmental Studies Project, Boulder, and other representative model.

EDFI 417. Urban Education (4) III. Research, methods, and concepts from sociology and psychology discussed as basis for critical, analyzing current educational practices, programs, and policies of urban schools. Resource people used. Library and field research required. Prerequisite: commitment to, or at least serious interest in, urban education.

EDFI 429. Assessment of Young and Atypical Children (4) I, II, III. Concepts and principles of measurement and instruments used in assessing young and atypical children; integration of measurement and instruction. Prerequisite: EDFI 302.

EDFI 460. Sex Role Stereotyping and Sex Discrimination In Education (4). On demand. Education as influential institution and process in society in terms of sexism in educational materials, curriculum, structure; federal, state, local policy responses to this concern; consideration and development of other policies for action regarding sex equity in education.

EDFI 481. Leadership Training in Behavior Analysis Program (4-8) IV. Prepares individuals to function as group leaders in academic, year-long, inservice Behavior Analysis Program. Sixty hours of didactic instruction. Prerequisite: permission of instructor and enrollment in Behavior Analysis Program.

EDFI 482. Direct Study of the Child (5-9) I. Part of Behavior Analysis Program. A child studied using predetermined framework.

EDFI 490. Problems in Education (1-5). On demand. For advanced student wanting to conduct intensive study of selected problems in education. May be repeated to 6 hours; undergraduate credit only. Prerequisite: permission of instructor.

Electronic Technology (ET)

(See technology)

English (ENG)

ENG 100. English as Foreign Language (5) I, II, III. For student whose native language is not English. Development of skills in listening, speaking, reading, and writing standard American English. Placement on basis of proficiency tests. Though it may be necessary for student to repeat course, only five hours of credit counted toward graduation.

◆ **ENG 110. Developmental Writing (4) I, II, III.** Development of skills in sentence structure, edited American English usage, mechanics, paragraph and short essay construction. Placement through departmental pretesting. Student must complete course and departmental proficiency successfully to receive S. No more than eight hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No record.

◆ **ENG 111. Introductory Writing (4) I, II, III.** Basic expository writing; emphasis on organizing and developing coherent essay of approximately 500 words for college-educated audience. Placement through departmental pretesting or successful completion of ENG 110. Students must complete course and departmental proficiency examination successfully to receive S. No more than eight hours from ENG 110, ENG 111, and ENG 112 may be applied toward graduation. Graded S/No record.

- ◆ **ENG 112. Varieties of Writing** (4) I, II, III. Expository writing including research paper; emphasis on analytical writing based on critical reading. Placement through departmental pre-testing or successful completion of ENG 111. Student must complete course and departmental proficiency examination successfully to receive passing grade. Graded A, B, C/No record.
- ◆ **ENG 150. Response to Literature** (4) I, II, III. Response to themes in poetry, drama, fiction, nonfiction and other literary types. Not accepted toward English major or minor.
- ◆ **ENG 200. Introduction to Literature: (Sub-Title)** (4) I, II, III. Basic literary concepts; works organized on single topic such as black literature, fantasy, science fiction, literature and film. Can be repeated once for credit if topic different. Not accepted toward English major or minor as elective.
- ENG 201. Writing About Literature** (4) II, III. Practical criticism and literary interpretation of poetry, drama and fiction. Extensive expository writing. Prerequisite: ENG 112.
- ◆ **ENG 202. Introduction to Poetry** (4) I, III. Selection of great poems, past and present. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 203. Introduction to Drama** (4) II. Selected representative plays, past and present. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 204. Introduction to Fiction** (4) I. Study of fiction to develop appreciation of short story and novel. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 205. Craft of Poetry** (4) II. Traditional and contemporary poetry; emphasis on way poetry is made. Though required for majors and minors in B.F.A. creative writing program, course fulfills same requirements as ENG 204. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 206. Craft of Fiction** (4) III. The way fiction works, impulses creating it, how it turns out. Emphasis on style and form in traditional and contemporary fiction as way of understanding meaning. Though required for majors and minors in B.F.A. creative writing program, course fulfills same requirements as ENG 204. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 207. Intermediate Writing** (4) I, II, III. Primarily exposition. Prerequisite: ENG 112.
- ◆ **ENG 208. Creative Writing** (4) I, II, III. Principles of poetic composition and fiction writing. Analysis of contemporary models and practice in original composition.
- ◆ **ENG 209. Creative Writing Workshop** (4) I, II, III. Supervised writing in poetry and fiction; group discussions; concentration on shorter forms. May be repeated once. Prerequisite: "B" or better in ENG 208.
- ◆ **ENG 251. Writing About Films** (4) II. Same amount of writing as in ENG 207, deals entirely with film theory, films, film scripts, novels on which films are based, and film reviews. Equivalent of ENG 207. Prerequisite: ENG 112.
- ◆ **ENG 261. World Literature** (4) I. Masterpieces of ancient Greece and Rome which have influenced English literature. Homer, Greek drama, Virgil. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 262. World Literature** (4) II. Masterpieces beginning with warrior epics of Early Middle Ages through Dante and Renaissance to Don Quixote. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 263. World Literature** (4) III. Masterpieces of 17th through 20th century. Moliere, Voltaire, Goethe, Romantic poets, Flaubert, Ibsen, Sartre. Prerequisite: any ENG literature course or ENG 112.
- ENG 290. Language Study** (5) II. Aspects of form and style in language: structure, usage, semantics; language change and cultural convention; social and regional dialects. Prerequisite: sophomore standing. Not applicable for state certification requirements.
- ENG 291. Language Study for Elementary Teachers** (4) III. Structure of English; emphasis on linguistic basis of reading, spelling, and other language arts concerns. Prerequisite: ENG 112.
- ENG 300. Themes in Literature** (4) I, II, III. Literary treatment of single theme, such as hero and heroine in literature, youth and age, love and death, innocence and experience, war and peace, wealth and poverty, etc. Primarily for nonmajor. Prerequisite: any 100- or 200-level literature course or consent of instructor. May be repeated once if themes are different.
- ◆ **ENG 301. Shakespeare** (4) I, II, III. Representative comedies, history plays, tragedies and tragicomedies, and sonnets. Designed for student with no previous Shakespeare courses. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 303. American Literature to 1850** (5) I. Roots of American literary traditions and growth of national independence of expression: religious, political, philosophical sources of American imagination based on texts of representative writers including Edwards, Paine, Irving, Cooper, Poe, Bryant, Emerson, Thoreau, and Hawthorne. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 304. American Literature: 1850-1900** (5) II, III. Literary patterns of idealism, skepticism, and emergent materialism based on texts of representative writers such as Melville, Whitman, Dickinson, Twain, James and Howells; literary movements as local-colorism and realism. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 305. 20th Century American Literature** (5) III. Fiction, drama, and poetry which reflect individual's struggle toward personal and social freedom. Black literature, 1930's social protest, post-war writers. Includes Crane, Dreiser, Hemingway, Steinbeck, Hughes, Baldwin, O'Neill, Albee, Cheever, Malamud, Mailer, and Bellow. Prerequisite: any ENG literature course or ENG 112.
- ENG 306. Bible** (5) II. English Bible as literary classic; its development and influence on literary culture. Prerequisite: any 100- or 200-level literature course.
- ◆ **ENG 307. Great Books** (4) II. Books not usually studied in other courses; organized according to topic such as love, war, or death, or according to genre such as fantasy, science fiction, or romance, or according to works of one or two writers such as Tolkien. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 308. Creative Writing** (5) I, II, III. Imaginative writing, fiction and poetry. Class discussion and individual conferences. Prerequisite: "B" or better in ENG 209 or approval of instructor. May be repeated once.
- ◆ **ENG 309. English Literature Survey to 1660** (5) I. Major texts such as Beowulf and Sir Gawain and the Green Knight (in translation), Canterbury Tales (selection), Faerie Queene and Paradise Lost (a book of each), Sonnets and short poetry, drama and prose. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 310. English Literature Survey 1660-1824** (5) II. Triumph of neo-classic wit and satire, gradual shift to Romantic emphasis on emotion and imagination; includes Pope, Dryden, Swift, Fielding, Blake, Wordsworth, Byron, Shelley, and Keats. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 311. English Literature Survey: 1824 to Present** (5) III. Major authors of major literary traditions from Victorian age to present. Though continuation of ENG 309 and ENG 310, this course need not be taken in sequence. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 320. Modern Poetry** (4) I. English and American poetry and European poetry in translation from 1900 to 1945; writers and works significantly influencing development of poetic forms. Prerequisite: any ENG literature course or ENG 112.
- ENG 322. 19th Century American Fiction** (4) I. Short stories and novels. Includes Poe, Hawthorne, Melville, Twain, James and Crane; minor writers including regional humorists. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 323. Modern Fiction** (4) I, III. Emphasis on the novel; American and English works as well as works in translation from 1900 to 1945; works which represent development of forms of fiction. Prerequisite: any ENG literature course or ENG 112.
- ENG 324. Modern Novel: Japanese** (4) II. Masterworks since Meiji Era and first impact of Western literary forms. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 325. Modern Drama** (4) II. Great plays by Ibsen, Chekhov, Shaw, O'Neill, and others; dramatist's insights into human condition. Prerequisite: any ENG literature course or ENG 112.
- ENG 330. Contemporary Poetry** (4) II. Cross section of English and American poetry and European poetry in translation, mostly written since 1945; writers and works representing major trends in development of poetry. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 333. Contemporary Fiction** (4) III. Cross section of American and English fiction and European fiction in translation, mostly written since 1945; works representing major trends in development of fiction. Prerequisite: any ENG literature course or ENG 112.
- ENG 335. Contemporary Drama** (4) III. Plays since 1945 by American, British and European dramatists (in translation); new techniques, thematic trends, and aspect of human condition revealed through plays. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 342. Children's Literature** (5) I, II, III. Reading and evaluation of books for children from nursery school through junior high school; novels; folklore, informational literature, poetry, and bibliographical sources. Not open to student with credit for L&EM 342. Prerequisite: any ENG literature course or ENG 112.

- ENG 343. Literature for Adolescents** (4) III. Reading and evaluation of books for junior and senior high school students; emphasis on fiction; also biography and other nonfiction, folklore, myth, poetry. Prerequisite: any ENG literature course or ENG 112.
- ◆ **ENG 372. Literature of Minorities** (5) II, III. Minority literary expression: aims, methods and accomplishments. Prerequisite: any ENG literature course or ENG 112.
- ENG 380. Introductory English Linguistics** (5) I, II, III. Structure of English through recent linguistic theories and related topics such as dialects, usage, dictionaries. Prerequisite: sophomore standing.
- ENG 381. Grammar and Writing** (4) II, III. Application of grammatical models (traditional, structural, and transformational) to the teaching of writing. Prerequisite: ENG 380.
- ENG 385. Studies in Literature-Film** (4) III. Problems in film's relationship to literature; definitions and theory; specific films and literary works. May focus on author, genre, or historical period. May be repeated once if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 400. Chaucer** (4) III. The Canterbury Tales, Troilus and Criseyde, and such dream-vision poems as The Book of the Duchess and Lyrics in Middle English. Prerequisite: any ENG literature course or ENG 112.
- ENG 401. Shakespeare II** (4) I. Shakespeare's dramatic technique in tragedy, comedy, or history play. Prerequisite: ENG 301.
- ENG 402. English Medieval Literature** (4) II. Poetry, prose, and drama including such works as Beowulf (selection), Pearl, The Wakefield Plays, and The Prick of Conscience read in Old and Middle English or in translation. Prerequisite: any ENG literature course or ENG 112.
- ENG 403. 16th Century English Poetry and Prose** (4) II. Renaissance literature, including great sonnets, early novels, Spenser's Arthurian epic, Skelton's satires, and Marlowe's erotic love poetry. Prerequisite: any ENG literature course or ENG 112.
- ENG 404. 17th Century Writers** (4) II. Poetry and prose from 1600 to 1660; Donne, Jonson, Herrick, Herbert, Vaughan and Marvell, Bacon, Browne, Hobbes, and Bunyan. Prerequisite: any ENG literature course or ENG 112.
- ENG 406. English Renaissance Drama** (4) III. English drama (except Shakespeare) before 1642, including Marlowe, Jonson, and Webster; reading in antecedent forms and traditions. Prerequisite: any ENG literature course or ENG 112.
- ENG 407. Writer's Workshop** (5) I, II, III. Analysis of contemporary creative writing models, and original composition; emphasis on fiction and poetry. Creative writing majors repeating course required to do special project. Prerequisite: "B" or better in ENG 308 or approval of instructor. May be repeated once.
- ENG 408. Milton** (4) III. Paradise Lost, Paradise Regained, and Samson Agonistes and selected minor poems and prose. Prerequisite: any ENG literature course or ENG 112.
- ENG 410. English Restoration and 18th Century Drama** (4) II. Restoration features heroic drama, pathetic tragedy, and libertine comedy; 18th century sentimentality and laughing comedy. State and theatre design, historical and social background. Prerequisite: any ENG literature course or ENG 112.
- ENG 411. 18th Century Writers** (4) III. Prose and poetry from Restoration, Augustan, and Johnsonian periods; neoclassical and preromantic writers; Dryden, Swift, Pope, Johnson, Boswell. Prerequisite: any ENG literature course or ENG 112.
- ENG 415. English Novel: Defoe to Austen** (4) I. Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and contemporaries. Prerequisite: any ENG literature course or ENG 112.
- ENG 416. English Novel of 19th Century** (4) I. Bronte, Dickens, Hardy and other novelists of Victorian England. Beginnings of modern society, its problems and possibilities, and development of novel as a unique modern form. Prerequisite: any ENG literature course or ENG 112.
- ENG 417. Romantic Writers** (4) I. English poetry and prose from 1789-1832; Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. Prerequisite: any ENG literature course or ENG 112.
- ENG 418. Victorian Writers** (4) II. Prose and poetry of Carlyle, Mill, Tennyson, Browning, Arnold, the Pre-Raphaelite poets and successors. Prerequisite: any ENG literature course or ENG 112.
- ENG 419. Modern British Writers** (4) I. Major British writers from 1900 to 1945: Joyce, Lawrence, Conrad, Forster, Woolf, Yeats, O'Casey, Shaw, Auden. Prerequisite: any ENG literature course or ENG 112.
- ENG 420. Modern American Writers** (4) II. Major American writers from 1900 to 1945: Eliot, Pound, Stein, Frost, Stevens, O'Neill, Hemingway, Fitzgerald, Faulkner. Prerequisite: any ENG literature course or ENG 112.
- ENG 423. Women's Studies in Literature** (4) III. Topics such as women poets or women novelists, depiction of women in works by men, feminist criticism; primarily British and American writers. May be repeated to eight hours if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 430. American Transcendentalism** (4) III. Major writers of Transcendentalist movement and social and philosophical background of their time; Emerson and Thoreau. Prerequisite: any ENG literature course or ENG 112.
- ENG 435. Hawthorne and Melville** (4) II. Major works of Hawthorne and Melville and background of the age. Prerequisite: any ENG literature course or ENG 112.
- ENG 442. Studies in Children's Literature** (4) I. Problems in children's literature; history, criticism, trends, individual authors, types. Not open to student with credit for L&EM 442. Prerequisite: ENG 342 or permission of instructor.
- ENG 452. Studies in English Literature to 1600** (4). Intensive study of author, literary school, genre, or selected theme. May be repeated to eight hours if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 453. Studies in English and American Literature: 17th and 18th Centuries** (4). Intensive study of author, literary school, genre, or selected theme. May be repeated to eight hours if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 454. Studies in English and American Literature: 19th Century** (4). Intensive study of author, literary school, genre, or selected theme. May be repeated to eight hours if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 455. Studies in English and American Literature: 20th Century** (4). Intensive study of author, literary school, genre, or selected theme. May be repeated to eight hours if topics are different. Prerequisite: any ENG literature course or ENG 112.
- ENG 456. Critical Writing** (4) II. Writing from various critical perspectives such as biographical, textual, psychological, mythical, analytical. Prerequisite: any ENG literature course or ENG 112.
- ENG 472. Modern Scientific Writers** (4) II. Selected 20th century scientific writers as rhetorical models; problems of communicating complex technical information to general audience.
- ENG 481. Advanced English Linguistics** (4) III. Intensive study of topic in English linguistics. Topics announced in advance and vary from section to section and quarter to quarter. May be repeated if topics clearly different. Prerequisite: ENG 380.
- ENG 482. History of English Language** (4) I. Changes in sounds, grammar, usage, and meaning from Old English to present. Prerequisite or parallel: ENG 380.
- ENG 483. Advanced Writing** (4) I. Expressive writing; composing process and techniques for stimulating and evaluating writing in secondary school. For prospective teachers and anyone interested in craft of writing or creative process. Prerequisite: EDCI 371 or consent of instructor.
- ENG 485. Writing Film Criticism** (4) III. Principles and assumptions underlying approaches to film criticism as revealed in commentaries and critiques; application of these principles to writing film criticism. Prerequisite: ENG 201 or ENG 207 or ENG 208 or ENG 251, or permission of instructor.
- ENG 488. Technical Writing** (4) I, II, III. Professional course designed for practical application in business, industry, and sciences. May be repeated once for credit. Prerequisite: senior standing or approval of instructor.
- ENG 489. Internship in Technical Writing** (1-15) I, II, III, IV. Fulltime technical writing internship for 10 weeks in industrial publications office under supervision of professional publications director. Available only for students with exceptional skill in technical writing, with approval and recommendation of technical writing staff. Prerequisite: ENG 488 and approval of technical writing staff. Graded S/U.
- ENG 490. Tutorial in Language and Literature** (1-5) I, II, III. For advanced student or small group of students to work independently in specialized subject not covered by existing courses. Prerequisites: junior standing; eight hours of ENG beyond 112; written description of the proposal prepared by student and signed by proposed tutor, to be submitted to undergraduate curriculum committee in English prior to end of preceding quarter.
- ENG 495. Honors Reading** (4). For superior-major or minor who wants to pursue common studies determined by interests of group looking toward granting of honors in English. Prerequisite: consent of instructor.

Environmental Health (ENVH)

ENVH 401. Waste Management and Disposal (1). Problems of disposing of wastes generated by various segments of community; sources of material, levels of authority and responsibility, and alternatives for disposal.

ENVH 402. Air and Noise Pollution in Community (4) II. Sources and effects of air and noise pollutants; various methods of monitoring, evaluation, and control; elements of development and implementation of control systems.

ENVH 403. Environmental Considerations in Occupational Health (4) III. Prevention and control of occupational health and safety hazards through improvement of working environment; applicable laws and standards; key concepts in recognition and evaluation of potential hazards.

ENVH 404. Organization of Public and Environmental Health Services (4) II. Concepts and philosophy of public health as reflected by national, state, regional, and local programs. Prerequisite: junior status; instructor's permission if not an environmental major or health and community services student.

ENVH 470. Special Problems in Environmental Health (1-5) I, II, III, IV. Student designs and carries out study or special project in area of interest. Prerequisite: program director's permission. May be repeated.

ENVH 491. Practicum (2-16) I, II, III, IV. Experience working under supervision in selected environmental, public health, or health planning agencies or industries with environmental health units; emphasis on practice rather than observation. May be repeated to 16 hours; minimum of six hours required for students in environmental health program. Prerequisites: instructor's permission, at least junior status. Graded S/U.

Environmental Health Technology (ENVT)

† **ENVT 110. Microbiology for Water and Food** (5). Fundamentals of microbiology; emphasis on drinking water and dairy foods. Three hours of lecture, six hours of laboratory. Prerequisite: CHEM 111 and 112, or CHEM 121 and 122, or consent of instructor.

† **ENVT 121. Environmental Regulation** (3). Foundations of environmental law; historic precedents, current legislation, environmental impact statements, and testimony.

† **ENVT 122. Inspection Legalities** (1). Legal responsibilities of making environmental pollution, safety, and health inspections.

† **ENVT 141. Contemporary Problems in Ecology** (5). Biological implications of man's effect on environment; environmental problems of air, water, and land pollution as related to environmental technologist. Four hours of lecture, three hours of laboratory.

† **ENVT 160. Environmental Sanitation** (3). Epidemiology, communicable disease control, individual sewage treatment, weed and vector control, solid and liquid waste disposal. Three hours of lecture and field study.

† **ENVT 211. Biological Examination of Water and Wastewater** (5). Quantitative and qualitative analysis of bacteria, algae, and common aquatic organisms in water, wastewater, and bottom materials. Three hours of lecture, six hours of laboratory. Prerequisite: ENVT 110.

† **ENVT 222. Water and Wastewater Treatment** (6). Water supply and treatment and wastewater treatment and disposal. Four hours of lecture, six hours of laboratory and field study. Prerequisite: ENVT 110 and CHEM 112 or 122 or consent of instructor.

† **ENVT 223. Wastewater Package Treatment** (2). Basic concepts of routine operation, maintenance, process control, and safety for operator personnel and inspectors of package type extended aeration plants. Twenty-eight hours of lecture.

† **ENVT 225. Environmental Health and Protection** (4). Basic concepts in industrial toxicology, noise, illumination, effects of temperature, ergonomics, and radiation uses and protection. Three hours lecture, three hours of laboratory and field study.

† **ENVT 226. Institutional Health and Sanitation** (3). Elementary inspection techniques of recreation areas, marinas, housing, schools, temporary residences, trailer parks, and migrant labor facilities, and public health planning and administration. Three hours of lecture.

† **ENVT 260. Air Pollution Surveillance and Control** (5). Fundamentals of air pollution and industrial hygiene surveillance, monitoring, analysis, and control. Three hours of lecture, six hours of laboratory or field study. Prerequisites: ENVT 225 and AMS 111.

† **ENVT 261. Industrial Ventilation** (3). Principles of ventilation; design and evaluation of general, dilution, local exhaust ventilation systems. Two hours of lecture, three hours of laboratory. Prerequisite: ENVT 260 or consent of instructor.

† **ENVT 270. Occupational Safety and Hygiene** (5). Accident prevention and investigation, fire, electrical, and laboratory safety, personal protective equipment, biohazard control, and occupational health inspection techniques. Four hours of lecture, three hours of field study.

† **ENVT 272. Hazard Recognition** (3). Hazard recognition in work environment; emphasis on construction and factory operations. Three hours of lecture.

† **ENVT 280. Food Manager Certification** (2). Microbiology, inspection techniques, safety analysis, prevention of food-borne diseases; Ohio food service laws and planning and equipment review. Prerequisite: can only be taken by food service managers, supervisors or sanitarians. Twenty-eight hours of lecture.

† **ENVT 281. Advanced Food Management** (1). Motivating employees, insect and rodent control, training personnel, causes and prevention of food-borne diseases, advanced inspection techniques, cleaning and sanitizing. Prerequisite: ENVT 160 or ENVT 280. Fourteen hours of lecture.

ENVT 290. Experimental Studies in the Environment (1-4). Environmental study projects, workshops, seminars, and computer simulation classes dealing with air, water, or land resource utilization and planning.

ENVT 291. Student Field Experience (4). Ten weeks of field work in environmental health under supervision of a regulatory agency or a private industrial concern and the director of Environmental Health at Firelands College. Prerequisite: permission of supervisor.

Environmental Studies (ENVS)

ENVS 101. Approaches to Environmental Studies (2) II. Introduction to philosophy and practice of environmental concern; career opportunities; contemporary issues organizations.

ENVS 301. Environmental Problems (4) I. Interdisciplinary approach to selected environmental problems through research and analysis; emphasis on team approach.

ENVS 401. Environmental Strategies (4). Explorations into environmental problem solving through systems approach and citizen participation process.

ENVS 402. Environmental Impact Statements (4) II. History and concepts of environmental impact statements; procedures in preparing and reviewing such statements.

Ethnic Studies (ETHN)

ETHN 101. Introduction to Ethnic Studies (4) I, II, III, IV. Key theoretical concepts in ethnicity; surveys studies and problems of ethnic groups.

ETHN 210. Chicanos in American Society (4) I, II, III. Social culture of Chicanos in United States; major concepts and themes of Chicano biculturalism and their folk culture.

ETHN 220. African Literature (4) I. Creative and critical writing in English by writers of African descent; includes African and Caribbean writers.

ETHN 300. Topics in Ethnic Studies (1-4) I, II, III, IV on demand. Experimental courses considered part of regular offering.

ETHN 304. Ethnicity in America (4) I, II, III, IV. Anthropological survey of some ethnic and regional groups in America; traditional and contemporary cultures. Prerequisite: SOC 101 or 231, or lower level ETHN course.

ETHN 308. Origins of Chicano Culture (4) I. Origins of Mexican-American culture; contributions to literature, art, folklore.

ETHN 312. West African Literature and Nationalism (4) III. Contributions of West African writers to rise of national consciousness in West Africa.

ETHN 395. Workshop on Current Topics (1-5). On demand. Comprehensive study of America's ethnicity; emphasizes the three ethnic groups of northwest Ohio—Afro-Americans, Mexican Americans, Polish Americans; development of relevant curriculum pertaining to ethnic groups studied.

ETHN 410. Contemporary Mexican American Social Thought (4) I, II, III. Development of Mexican social-philosophical thought as exemplified by Santa Anna, Juarez, Diaz, Zapata, and Cardenas as related to Chicano ideologies, their significant parallels within contemporary periods and institutions.

ETHN 415. Novels of Chinua Achebe (4) II. Study of Chinua Achebe, one of the foremost writers from English-speaking West Africa.

ETHN 480. Seminar in Ethnic Studies (4) I, II, III, IV. Specific content areas offered depends on demand and interest of staff. May be repeated three times. May or may not partially fulfill group requirements. Prerequisite: consent of instructor.

ETHN 489. Field Study in Ethnic Studies (4-12) I, II, III, IV. Placement of students in a variety of agencies or businesses relevant to study of ethnicity or research/study outside Bowling Green. Prerequisites: junior standing, eight hours of upper division ETHN courses relevant to the study, and consent of instructor. Graded S/U.

ETHN 490. Readings in Ethnic Studies (1-4) I, II, III, IV. Individual extensive readings in consultation with instructor in fields of special interest. May be repeated. May or may not partially fulfill group requirements. Prerequisite: consent of instructor.

Finance (FIN)

FIN 200. Personal Finance (4) I, II, III. Primarily for nonbusiness majors. Personal income management; borrowing sources and costs; auto, property and life insurance; homeownership financing; personal investment strategy, and long-range personal financial planning. Not open to juniors and seniors majoring in business administration.

◆ **FIN 300. Business Finance** (4) I, II, III, IV. Acquisition and allocation of funds in business enterprise. Fundamentals of financial analysis, current assets management, capital budgeting, financial structure, dividend policy, types of security contracts, and short-term financing. Prerequisites: ECON 203, and ACCT 222.

◆ **FIN 330. Principles of Investment** (4) I, II, III. Investment process related to commitment of funds in securities. Risks and rewards of different investment media. Investment analysis and timing, portfolio construction and supervision. Prerequisite: FIN 300 or permission of instructor.

FIN 342. Real Estate Administration (4) II, IV. Investment decision making in land resource use appraisal and investment analysis. Real estate location and markets, public influence, property rights, finance, taxation and administration. Accepted by Ohio Real Estate Commission as one of two required courses to take licensing exam. Prerequisite: ECON 203 or permission of instructor.

FIN 360. Financial Institutions (4) I, III. Institutions which participate in money and capital markets; markets for corporate securities, real estate finance, federal government and agency obligations, and state and local government obligations. Prerequisites: FIN 300 and ECON 311.

FIN 425. Financial Management in Health Care Services (4) II. Application of financial management principles; funds flow analysis; forecasting and budgeting; benefit/cost considerations; ratio analysis; government subsidy implications for capital budgeting; sources of capital; planning capital structure. Prerequisite: FIN 300.

FIN 433. Security Analysis (4) I. Selecting securities for investment objectives. Appraisal of investment risks for specific securities; valuation and suitability for purchase, retention, or sale; appropriateness for stated portfolio objectives. Prerequisite: FIN 330.

FIN 436. Portfolio Management (4) II. Additional topics in security analysis. Theory and practice of portfolio construction and review; practical applications in portfolio management. Prerequisite: FIN 433.

FIN 450. Problems in Financial Administration (4) I, III. Case method approach to problems in procurement, administration, and control of funds. Prerequisite: FIN 300. ACCT 322 or ACCT 332 or ACCT 337 recommended.

FIN 452. Capital Budgeting (4) III. Capital investment policies of firm; cost of capital, rationing, rate of return, capital replacement; problems in estimating earnings, cost saving, obsolescence; Importance of reviewing past decisions. Prerequisite: FIN 450.

FIN 461. Bank Management (4) II, IV. Top management study of banking. Management of funds, sources, and their allocation among reserves, loans, and investments to provide liquidity and earnings. Services to depositors; public relations. Prerequisites: FIN 300 and ECON 311.

FIN 491. Studies in Finance (1-4). On demand. In-depth study of selected areas. Offered to individual students on lecture basis or as seminar depending on student needs and nature of material. May be repeated to eight hours.

French (FREN)

◆ ***FREN 101. Elementary French I** (4) I, II. Beginning oral-aural study; attention to grammar. Four class periods and scheduled oral practice each week.

◆ ***FREN 102. Elementary French II** (4) I, II, III. FREN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: FREN 101.

◆ ***FREN 103. Elementary French III** (4) I, II, III. FREN 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: FREN 102.

FREN 111. French Cultural Series I (4) I, II. French culture; development of language awareness for reading comprehension. Discussion in English. No laboratory.

FREN 112. French Cultural Series II (4) I, II, III. French culture; development of language awareness for reading comprehension. Discussion in English. Prerequisite: FREN 101 or FREN 111. No laboratory.

FREN 113. French Cultural Series III (4) I, II, III. Continuation of FREN 112. No lab. Prerequisite: FREN 102 or FREN 112.

◆ ***FREN 201. Intermediate French I** (4) I, II, III. Four class periods and scheduled oral practice each week. Prerequisite: FREN 103 or two years of French in high school.

◆ ***FREN 202. Intermediate French II** (4) I, II, III. FREN 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: FREN 201 or three years of French in high school.

FREN 211. French Cultural Series IV (4) I, II, III, IV. Further development of reading skill. Extensive reading in masterpieces of French literature and related cultural texts. Some reading in English translation. Prerequisite: FREN 103 or FREN 113, or two years of French in high school.

FREN 212. French Cultural Series V (4) I, II, III, IV. Continuation of FREN 211. Prerequisite: FREN 201 or FREN 211 or three years of French in high school.

FREN 260. French Women Writers in Translation (3). Study in English of French women writers throughout the ages. Not applicable toward French major or minor.

*Credit toward graduation is not allowed for FREN 101, FREN 102, FREN 103, FREN 201, or FREN 202 when equivalent credit has been accepted from high school as part of admission credits, except that a student is allowed to duplicate one unit of high school study with University credit and that a student with two years of high school study is allowed to take FREN 102 and FREN 103 for credit.

FREN 261. Modern French Writers in Translation (3). Readings in English from Camus, Sartre, Beckett, Ionesco. Not applicable toward French major or minor.

FREN 350. French Connection (3) I. Bridge between FREN 202 and advanced courses. Intensive grammar review and translation. Required of all majors but may be waived by Department of Romance Languages. Prerequisite: FREN 202.

FREN 351. French Composition and Conversation I (3) I. Improvement of oral and written skills; emphasis on composition. Prerequisite: FREN 202.

FREN 352. French Composition and Conversation II (3). FREN 351 continued; emphasis on conversation. Prerequisite: FREN 202.

FREN 353. French Diction (3) 1982-83 and alternate years. French pronunciation; syllabification, stress, linking, intonation. Prerequisite: FREN 202.

FREN 355. French Linguistics (4) I. Sound system and grammatical structures of modern French; practical application. Prerequisite: FREN 202.

FREN 361. Introduction to French Literature I (3) 1982-83 and alternate years. Chronological evaluation of outstanding works from Middle Ages through 17th century; various movements and genres. Prerequisite: FREN 202.

FREN 362. Introduction to French Literature II (3) 1981-82 and alternate years. FREN 361 continued; masterpieces from 18th century to present; various movements and genres. Prerequisite: FREN 202.

FREN 371. French Civilization I (4) 1982-83 and alternate years. Political, social, intellectual, artistic life of French people from prehistoric times to Industrial Revolution; background for literary studies and preparation for teaching of French. Prerequisite: FREN 202.

FREN 372. French Civilization II (3) 1981-82 and alternate years. FREN 371 continued; political, social, intellectual, artistic life of modern France. Prerequisite: FREN 202.

FREN 389. Contemporary Touraine (4) III. Individual research projects culminating in term paper dealing with some aspect of region of Touraine. Prerequisite: FREN 202. Offered only abroad.

FREN 451. Advanced Composition (3). Increased facility at written composition through practice in grammatical patterns. Prerequisite: FREN 351.

FREN 452. Advanced Conversation (3). Development of increased speaking facility. Prerequisite: FREN 352.

FREN 453. Advanced French Diction (3). Continued study of pronunciation, stress, and intonation. Prerequisite: FREN 353.

FREN 463. Career French (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation. Prerequisite: FREN 351 or FREN 352.

FREN 468. Four Great French Dramatists (4). Alternate years. Ten important plays by Corneille, Rotrou, Racine, Moliere, illustrating typical traits of baroque and classical literature. Prerequisite: FREN 361.

FREN 469. Baroque and Classical Authors of 17th Century (4). Alternate years. Ten great authors of 17th century, illustrating typical traits of baroque and classical styles. Prerequisite: FREN 361.

FREN 474. Enlightenment (4). Alternate years. Postclassical literature from 1685 to 1750, especially writings of Montesquieu and Voltaire. Prerequisite: FREN 362.

FREN 475. Preromanticism (4). Alternate years. Literature of sensibility from 1750 to 1800, especially writings of Diderot and Rousseau. Prerequisite: FREN 361.

FREN 484. Romantic Period (4). Alternate years. Thematic study of selected works of poetry, theatre, and novel during Romantic movement. Prerequisite: FREN 362.

FREN 485. Realism and Naturalism (4). Alternate years. Works by Stendhal, Balzac, Flaubert, Zola; representative poetry of period. Prerequisite: FREN 362.

FREN 489. French Literature: Advanced Studies (4). Intensive study of author, literary school, genre, or a selected theme. May be repeated to 12 hours if topics are clearly different. Prerequisite: FREN 361 or FREN 362.

FREN 491. Readings in French Literature (1-4) I, II, III, IV. Independent reading for advanced student who wishes to study particular author or period, or problem in language or civilization. Prerequisite: consent of department chair and instructor.

FREN 494. Modern French Novel (4). Alternate years. French novel since 1900; major works, innovations, trends. Prerequisite: FREN 362.

FREN 495. Modern French Poetry and Drama (4). Alternate years. French poetry and drama since 1900; surrealist and black poets; the new theatre. Prerequisite: FREN 362.

Geography (GEOG)

◆ **GEOG 121. World Geography: Eurasia and Africa** (3) I, II, III, IV. Geographical analysis of selected topics in Asia, Africa, and Europe. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 122. World Geography: Americas and Pacific** (3) I, II, III, IV. Geographical analysis of selected topics in Americas and Pacific world. Ecological aspects of cultural, political, and economic problems. Open only to freshmen and sophomores.

◆ **GEOG 125. Weather and Climate** (4) I, II, III. Atmospheric elements and controls; earth-sun relationships, weather components, weather prediction, and climatic types and distribution. Three one-hour lectures, one-hour demonstration-discussion.

◆ **GEOG 126. Vegetation and Soils** (4) II, III. Physical geography; distribution and classification of vegetation and soil and representation of earth on maps. Three one-hour lectures, one-hour discussion-demonstration.

◆ **GEOG 127. Land Form Development and Distribution** (4) II, III. Physical geography; processes of land form development, world-wide distribution of land forms, and U.S. physiographic features and regions. Three one-hour lectures, one-hour discussion-demonstration session.

GEOG 212. Atmospheric Environment (4) II. Fundamentals of atmospheric environment; emphasis on air with interactions, regimes, and spatial distribution.

◆ **GEOG 213. Meteorology** (4) I, II, III. Physical processes of atmosphere and relationship to daily weather pattern. Three one-hour lectures, one two-hour laboratory.

◆ **GEOG 225. Resource Distribution and Economic Activity** (4) I, II, III. Ways in which man has developed natural and human resources to meet economic needs; resulting patterns in economic landscape.

◆ **GEOG 230. Cultural Geography** (5) I, II, III. Geographic influences upon population distribution, religion, dietary patterns, economics, others.

GEOG 231. American Indian (4) II. Past and present spatial aspects of native American population in United States and Canada; distributions, migrations, economies, land tenure, cultures, art, rural and urban settlement, impact upon cultural and physical landscapes.

GEOG 300. Topics in Geography (4) I, II, III. On demand. Experimental courses considered part of regular offering.

GEOG 321. Introduction to Map Communication (4) I, II, III. Practical map planning and construction; basic cartographic theory and use of drafting materials and equipment.

GEOG 322. Thematic Cartography (4) II, III. Quantitative and qualitative data; statistical or thematic maps.

GEOG 323. Research Methods III (4) I. Geographic research techniques: quantitative methods of describing and analyzing spatial distributions.

GEOG 325. Population Geography (4) II. Spatial analysis of size, distribution, density, migration, age-sex composition, and dynamic factors of change in major world population regions and sub-regions.

GEOG 326. Community Planning for the Elderly (4) III. Housing, shopping, and transportation problems of urban and rural elderly; development of programs to meet needs of elderly.

GEOG 327. Delivery of Social Services: Geographic Perspectives (4) II. Delivery of social services to subnational geographic areas; design and monitoring of delivery systems by examination of specific social programs and problems, such as those related to poverty, crime, health, and needs of elderly.

GEOG 331. Principles of Conservation Ecology (4) I, II. Principles necessary in considering environmental problems and application to various aspects of conservation; interdisciplinary approach combining social, biological, and physical sciences.

GEOG 332. Geography of Plants and Animals (4) II or III. Factors controlling spatial patterns of terrestrial plant and animal species and man's role in formation of these patterns.

GEOG 333. Geography of Recreation (4) I. Spatial aspects of outdoor recreation; assessment of present and future recreational resources; space for urban and rural areas, accessibility of these resources, governmental policies, and tourism.

GEOG 334. Geography of Diseases (4) I, II, or III. Past and present spatial distribution of diseases; cultural and environmental impacts in distribution, transmission, and causes of diseases in different regions of world.

GEOG 335. Geography of Human Migrations (4) III. Causes and consequences of selected historical and contemporary human migrations, both international and internal; spatial analysis of characteristics of migration streams and places of origin and destination.

GEOG 341. Soviet Union (4) III. Description and interpretation of geographic factors related to present development.

GEOG 342. Eastern Europe (4) II. Nations of eastern Europe; description and interpretation of geographic factors related to present development.

GEOG 343. Western Europe (4) I, II, III. Geographic aspects in understanding present-day status of countries of Western Europe.

GEOG 344. Eastern Asia (4) I. Problems and factors influencing development of countries of eastern Asia; emphasis on China and Japan.

GEOG 345. Southern and Southeast Asia (4) II. Countries extending from Philippine Islands to Pakistan; different cultures, utilization of resources, future opportunities, and problems of development.

GEOG 346. Middle East (4) I. Contemporary problems of Middle East; petroleum development and impact on society, food needs, population problems, and spatial characteristics of religious and linguistic groups.

◆ **GEOG 347. Africa** (4) III. Geographic factors influencing development of African countries.

GEOG 348. Mexico, Central America and the Caribbean (4) III. Problems related to contemporary development of societies of Mexico, Central America, and West Indies.

GEOG 349. South America (4) I. Problems related to contemporary development of societies of Spanish and Portuguese South America.

GEOG 350. Anglo-America (4) I, II, III. Problems and factors influencing development of U.S. and Canada.

GEOG 351. Ohio (4) I, II, III. Historical, physical, economic, and social problems related to development of Ohio.

GEOG 400. Special Topics In Geography (4) I, II, III. On demand. Experimental courses considered part of regular offering.

GEOG 402. Regional Economic Geography (4) I, II, or III. Problems of subnational areal units in county and regional planning, poverty pockets, delivery of services; emphasis on individual projects.

GEOG 404. Climatology (4) I, II, or III. Fundamentals and applications; drought, water resources, human comfort, health, architecture; short and long-term climatic changes.

GEOG 405. Meteorology and Man (4) I, II, or III. Sociological, political, planning, and legal aspects of atmosphere as natural resource. Prerequisite: GEOG 125 or GEOG 213.

GEOG 408. Geographic Concepts, Techniques, and Trends (4) I, II, or III. New developments, theories, concepts, and techniques in geography as related to geographic education; presentation of cartographic quantitative techniques and conceptual approach.

GEOG 410. Field Techniques (4) III. Instruction and practice in techniques of field data collection and interpretation. Physical and cultural elements of landscape investigated; emphasis on rural land use systems.

GEOG 411. Theoretical Cartography (4) II. Analysis of cartographic research. Six hours per week; two hours lecture or discussion and four hours of laboratory. May be repeated once upon consent of instructor. Prerequisite: GEOG 322 or consent of instructor.

GEOG 412. Use and Interpretation of Aerial Photographs (4) II. Sources, types, characteristics, uses, and limitations of aerial photographs. Training in use of standard equipment for stereoscopic viewing and height measurement.

GEOG 413. Introduction to Remote Sensing (4) III. Principles and procedures used to obtain information about natural and cultural features through imagery derived from photographic, multispectral, and side-looking airborne radar sensor systems. Prerequisite: GEOG 412 or consent of instructor.

GEOG 422. Computer Mapping (4) III. Map construction and display of geographical data using the computer. Prerequisite: CS 101 or consent of instructor.

GEOG 425. Food Resources and Rural Development (4) III. Changes and trends in availability, production, and consumption of food resources; related rural problems such as pollution, zoning, recreation, and future expectations of rural areas by urban populations.

GEOG 426. The American City (4) I. Internal organization of cities. Ecological and land use problems, ghetto development, urban-economic base, urban sprawl, and intra-urban delivery of services.

GEOG 427. Genetic and Regional Analysis of Physical Landscapes (4) II. Selected aspects of physical geography (excluding meteorology and climatology); in-depth analysis of man's natural environment. Prerequisites: GEOG 126 and GEOG 127, or consent of instructor.

GEOG 430. World Cultures in Transition (4) I, II, or III. Guided individual investigations of selected aspects of cultural geography. For advanced undergraduates or graduates.

GEOG 433. Soil Classification and Mapping (4) III. Classification of soils; use of soil survey equipment; preparation of soil type, slope, and erosion maps of assigned areas. Prerequisite: GEOG 126 or permission of instructor.

GEOG 436. Topics in Community and Area Development (4) III. Field analysis of various problems and topics of urban and rural areas. Prerequisite: GEOG 402 or GEOG 426 or consent of instructor.

GEOG 442. Conservation: Resources and Regional Development (4) III. Problems of area development in relationship to cultural, economic, and physical resources; obstacles to present development, needed changes, and potentials for future growth.

GEOG 451. Historical Geography of Anglo-America (4) I. Reconstruction of natural environment of U.S. and Canada; how different groups perceived environment and used available resources; emphasis on how man has modified earth's surface.

GEOG 452. Geopolitics (4) I, II, or III. Geographic factors influencing development of states and interrelationship of these countries.

GEOG 460. Hydrology (4) I, II, or III. Water's role in geography, environmental systems. Hydrologic phenomena analyzed on basis of scientific interdependence, phases of hydrologic cycle, practices and applications, and socio-economic aspects. Prerequisite: GEOG 125 or GEOG 126 or GEOG 127.

GEOG 464. Microclimatology (4) III. Study of atmospheric layer near ground; investigations of actual microclimates, relations of microclimate to plants, animals, man, topography, buildings, cities. Prerequisite: GEOG 213 or GEOG 404.

GEOG 471. Oceanography (4) III. Geographic aspects of oceanography.

GEOG 489. Internship (4) I, II, III, IV. Provides practical experience in applied geography, such as land use planning; urban and rural planning; recreational, regional, and environmental planning; and location of industrial, commercial, and health service facilities. May be repeated. Only eight hours may be applied to GEOG major or minor; additional hours are for general electives. Graded S/U.

GEOG 490. Special Problems in Geography (1-4). On demand. Readings and research on varied topics to suit needs of student.

Geology (GEOL)

◆ **GEOL 100. Introduction to Geology (4) I, II, III.** The earth; physical and historical geology; economic, social, and philosophic aspects. Not open to geology majors or minors.

GEOL 101. Earth Science (4) I, II, III. Earth's geology, oceanography, meteorology, and place in the universe. Four lectures. Credit not given for both GEOL 101 and GEOL 100.

◆ **GEOL 103. Earth Materials (4) I, II, III.** Common rocks and minerals and mode of occurrence and origin. Three lectures and one two-hour laboratory. Credit not given for both GEOL 100 and GEOL 103.

◆ **GEOL 104. Our Changing Landscapes (4) I, II, III.** Physical processes operating on and in earth; land forms and geologic structures. Three lectures and one two-hour laboratory. Credit not given for both GEOL 100 and GEOL 104.

◆ **GEOL 105. Our Prehistoric Earth (4) I, II, III.** Stratigraphy, time, and evolution upon which reconstruction of geologic history is based. Three lectures and one two-hour laboratory.

◆ **GEOL 110. Introduction to Astronomy (4) I, II, III.** Solar system, local stars and clusters, nebulae, galaxies and universe; modern cosmologies and limitations for existence and evolution of life. Not open to students with credit for ASTR 110.

◆ **GEOL 205. Geologic History of Man (4) I, III.** Evolution, classification, distribution, paleoecology, and geologic history of prehistoric hominids. Four lectures.

GEOL 302. Invertebrate Paleontology (4) I. Fossil invertebrates; morphology, phylogeny, classification, identification. Three lectures and one two-hour laboratory. One field trip required. Credit given for either GEOL 302 and GEOL 303, or GEOL 305. Prerequisite: GEOL 100 or consent of instructor.

GEOL 303. Invertebrate Paleontology (4) II. GEOL 302 continued.

◆ **GEOL 304. Geology of the National Parks (5) II.** U.S. regional geology as illustrated in national park system. Four lectures and one two-hour laboratory. Prerequisite: GEOL 100, or GEOL 103 and GEOL 104.

◆ **GEOL 305. Life of Geologic Past (4) II.** Non-technical study of fossils and factors that influenced progressive development of life through geologic time. Three lectures, two-hour discussion-demonstration-laboratory. For nonscientists; not open to geology majors in B.S. degree program; not open to students with credit for GEOL 302 or GEOL 303. Prerequisite: GEOL 100 or GEOL 101 or GEOL 105.

GEOL 306. Rocks and Minerals (5) III. Non-technical study of earth materials as illustrated by gems, minerals, and rocks. Two two-hour lectures, one two-hour laboratory. Prerequisite: GEOL 100 or GEOL 103. Not open to geology majors in B.S. degree program. Credit given for either GEOL 306, or GEOL 311 and GEOL 312.

GEOL 307. Sedimentary Petrology (4) II. Classification, origin, megascopic identification, and laboratory analysis of sedimentary rocks. Two lectures and two two-hour laboratories. Prerequisite: GEOL 311.

GEOL 308. Principles of Stratigraphy (4) III. Principles of stratigraphy and reconstruction of depositional environments. Construction and interpretation of stratigraphic diagrams. Three lectures and one two-hour laboratory. Prerequisite: GEOL 307.

GEOL 309. Structural Geology (4) III. Identification and interpretation of geologic structures; mechanical principles of deformable bodies, fracture and faulting, flow and folding; elementary concepts of tectonics. Three lectures and one three-hour laboratory. Prerequisites: GEOL 100 or GEOL 104, and PHYS 131 or PHYS 214, and working knowledge of trigonometry.

GEOL 310. Geomorphology (4) I. Nature and classification of landforms and processes that produce them; sequential development of landforms in relation to varied geologic structures, rocks, and climates. Two field trips required. Prerequisites: GEOL 103 and GEOL 104.

GEOL 311. Mineralogy (4) I. Minerals; association, genesis, and classification. Two lectures and two two-hour laboratories. Prerequisite or corequisite: CHEM 121 or CHEM 131. Credit given for either GEOL 306, or GEOL 311 and GEOL 312.

GEOL 312. Mineralogy (4) II. GEOL 311 continued. Crystallography and crystal chemistry; x-ray diffraction techniques. Prerequisite: GEOL 311.

GEOL 320. Igneous Petrology (4) I. Genesis, distribution, and classification. Three lectures and one two-hour laboratory. Prerequisite: GEOL 311. Prerequisite or corequisite: CHEM 122 or CHEM 123.

GEOL 321. Metamorphic Petrology (4) II. Origin, mode of occurrence, and classification. Two lectures and two two-hour laboratories. Prerequisites: GEOL 307 and GEOL 320.

GEOL 393. Field Methods (3) III. Use of instruments and methods applied to field problems in geology. Open to students planning to take GEOL 493 or GEOL 494. One three-hour laboratory. Two field trips required. Prerequisite: consent of instructor.

GEOL 401. Economic Geology (4) III alternate years. Classification and genesis of metallic mineral deposits illustrated by study of classic areas. Three lectures and one three-hour laboratory. Field trip required. Prerequisites: GEOL 309 and GEOL 320.

GEOL 402. Numerical Applications in Physical Sciences (1-3) II. Computational techniques applied to contemporary physical science problems. Prerequisites: MATH 131, and CS 400 or equivalent, and introductory sequence of three courses in CHEM, PHYS, or GEOL.

GEOL 411. Optical Mineralogy (4) I. Optical properties and methods of studying crystalline materials. Two lectures and two two-hour laboratories. Prerequisites: GEOL 311 and GEOL 312.

GEOL 412. Advanced Historical Geology (4) III. Regional geologic history illustrated by classical areas, particularly in North America, Australia, and Europe; environmental reconstruction, depositional cycles, and basin analysis. Four lectures. Prerequisites: GEOL 308 and senior standing.

GEOL 416. Petroleum Geology (4) I alternate years. Subsurface geology as illustrated by exploration for oil and gas. Three lectures and one three-hour laboratory. Prerequisites: GEOL 308 and GEOL 309.

◆ **GEOL 418. Geology of Ohio** (4) I. Bedrock and surficial geology of Ohio; state's economic mineral resources. Three lectures. One two-hour laboratory. Three full-day field trips required. Credit not given for the M.S. degree in geology. Prerequisites: GEOL 100, or GEOL 103 and GEOL 104 and GEOL 105.

GEOL 419. Vertebrate Paleontology (5) II alternate years. Fossil vertebrates and their morphology, classification, and evolution. Four lectures and one two-hour laboratory. Two field trips required. Credit not given for both GEOL 419 and GEOL 305. Prerequisite: GEOL 100 or GEOL 105 or BIOL 202.

GEOL 421. Human Environmental Geology (4) II. Aspects of geology critical to wise use of human environment. One half-day field trip required. Prerequisites: GEOL 103 and GEOL 104.

GEOL 422. Environmental Geology Report Writing (2) II. Preparation of environmental geology report for an Ohio township, copy of which goes to township officials. Several individual field trips to area. Corequisite: GEOL 421.

GEOL 431. Introduction to Geochemistry (4) I alternate years. Principles of mass action, acidity, solubility, and introductory thermodynamics; applications to natural systems. Prerequisite: CHEM 123.

GEOL 432. Geophysics (3) II alternate years. Earthquake seismology; gravity, magnetic, and temperature fields of earth; paleomagnetism; radio-active dating; plate tectonics. Three lectures. Prerequisites: GEOL 309, and PHYS 131 or PHYS 214, and MATH 131; or consent of instructor.

GEOL 433. Stratigraphic Chorology (4) II alternate years. Biochronology, evolution, and distribution of fossil faunas through geologic time. Three lectures, one three-hour laboratory. Prerequisites: GEOL 303 and GEOL 308.

GEOL 472. Marine Geology and Paleobiology (3-4) I alternate years. Processes, sediments, and organisms of modern marine environments; interrelationships and expression in rock record. Four lectures. Prerequisite: consent of instructor.

GEOL 473. Field Experience in Marine Geology and Paleobiology (1-2) I alternate years. Field experience in marine environments as related to geologic record. Prerequisite or corequisite: GEOL 472, consent of instructor.

GEOL 475. Workshop in Seismology (1-2) I, II, III. Supervised program in theory of seismology, operation of seismological observatory, interpretation of seismic records. May be repeated to eight hours. Prerequisite: consent of instructor. Graded S/U.

GEOL 480. Seminar in Geology (3) I, II, III. Study of selected topic. May be repeated to six hours. Prerequisite: consent of instructor.

GEOL 483. Physical Marine Geology (5) IV. Geological processes, sedimentary environments, geomorphical features of marine coastal, intertidal, and near-shore zones. Prerequisites: physical and historical geology. Taught at Gulf Coast Research Laboratory. Additional information can be obtained from marine science coordinator, Department of Biological Sciences.

GEOL 484. Chemical Marine Geology (5) IV. Supervised research on chemistry of coastal waters of Mississippi and geochemistry of bottoms. Prerequisites: physical and historical geology, mineralogy, and analytical chemistry. Taught at the Gulf Coast Research Laboratory. Additional information can be obtained from marine science coordinator, Department of Biological Sciences.

GEOL 490. Geological Problems (1-4) I, II, III, IV. Individual work for advanced student who has shown proficiency and marked degree of independence in work. May be repeated to six hours. Prerequisite: consent of instructor.

GEOL 493. Field Experience (6-9) IV. Recognition and study of geologic structures, land forms, and rock units in field. Written report required. Not open to B.S. geology majors. Prerequisite: GEOL 103 and GEOL 104 and GEOL 105, or GEOL 304; consent of instructor.

GEOL 494. Field Geology (6-9) IV. Principles and practice of field geology and geologic mapping. Final map and report required. Prerequisites: GEOL 308 and GEOL 309 and consent of instructor.

GEOL 496. Field Course in Modern Marine Environments (1-9) IV. Field study of shallow-water marine environments; ecology of paleontologically significant organisms and interrelationships with depositional environments; sediments and environment. Prerequisite: consent of instructor.

German (GERM)

Entering students who had German in high school should take the placement test during summer preregistration or prior to enrollment in a course.

GERM 100. Introduction to Language Studies: German (2) I, II, III. Lecture-reading course in English introducing student to language study. Comparison and contrast of cognate vocabulary, structure, and syntax of English and German. Suggested as a supplemental course to accompany GERM 101-103 series, or may be taken independently.

***GERM 101. Elementary German** (4) I, II, III. Beginning study of modern German. Four class periods and scheduled oral practice.

***GERM 102. Elementary German** (4) I, II, III. GERM 101 continued. Prerequisite: GERM 101 or one year of German in high school or equivalent.

***GERM 103. Elementary German** (4) I, II, III. GERM 102 continued. Prerequisite: GERM 102 or two years of German in high school or equivalent.

GERM 117. Beginning Conversational German (2) I, II. Basic conversational German based on *Guten Tag* film series. Suggested as supplemental course to accompany GERM 101-103 series, or may be taken independently. Not open to students who have completed GERM 103.

GERM 118. Beginning Conversational German (2) II, III. Continuation of GERM 117. Prerequisite: GERM 117 or GERM 101 or permission of instructor. Not open to students who have begun or completed GERM 103.

GERM 119. Beginning Conversational German (2) III. Continuation of GERM 118. Prerequisite: GERM 118 or GERM 101 or permission of instructor. Not open to students who have begun or completed GERM 201.

***GERM 201. Intermediate German** (4) I, II. Continued study of modern German. Four class periods and scheduled oral practice. Prerequisite: GERM 103 or three years of German in high school.

***GERM 202. Intermediate German** (4) II, III. Continuation of GERM 201. Prerequisite: GERM 201.

GERM 217. Intermediate Conversational German (2) III. Practice in conversation on intermediate level. Two class periods and scheduled oral practice. Prerequisite: GERM 103.

GERM 218. Intermediate Conversational German (2) II. Based on *Guten Tag, wie geht's* film series. Suggested as supplemental course to accompany GERM 201-202 series, or may be taken independently. Prerequisite: GERM 103 or equivalent.

GERM 219. Intermediate Conversational German (2) III. GERM 218 continued. Prerequisite: GERM 201 or permission of instructor.

GERM 231. Scientific and Technical Reading (4) II. Development of reading and translating proficiency in scientific, technical, and expository prose, as found in sciences and humanities. Vocabulary building, analysis of syntax, and grammar for reading purposes. Prerequisite: GERM 103.

GERM 260. Modern German Literature in Translation (4) I, II, III. Readings in English of internationally known authors from German-speaking countries. May include Kafka, Mann, Hesse, Brecht, Grass, others. Does not count toward German major or minor in arts and sciences or education.

GERM 300. Introduction to Study Abroad (1) III. Preparation for study abroad. Limited to Salzburg and German Exchange program participants. Does not count toward German major or minor. Graded S/U.

GERM 311. German Literature of 20th Century (4) III. Major authors and movements in German literature since 1900; drama, shorter prose forms, and lyric poetry. Prerequisite: GERM 202.

GERM 312. German Literature of 19th Century (4) I. Major authors and movements from death of Goethe to 1890's. Selected readings from works of Grillparzer, Buechner, Hebbel, Heine, Moerike, others. Prerequisite: GERM 202.

*Credit toward graduation is not allowed for GERM 102, GERM 103, GERM 201, GERM 202 when the equivalent credit has been accepted from high school as part of the admission credits except that a student is allowed to duplicate one unit of high school study with university credit.

GERM 313. Enlightenment and the Age of Goethe (3) II. Literary works and movements from mid-18th century and Sturm and Stress through Goethe's classical period; Lessing, Goethe, Schiller, Kleist. Prerequisite: GERM 311 or GERM 312.

GERM 315. German Culture and Civilization (4) I, II, III. Cultural-historical background considering social, intellectual, and artistic life of German-speaking peoples from medieval times to World War II. Lectures in English.

GERM 316. Contemporary German Life (4) I, II, III. Lecture-reading course in English on contemporary East and West Germany. Treats rebuilding and development of two German states from 1945 to present; political and social systems, geography, education, cultural life, mass media, patterns of daily living.

GERM 317. Composition and Conversation (4) I. Extensive practice in speaking and writing German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 202.

GERM 318. Composition and Conversation (4) II. GERM 317 continued. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 317 or permission of instructor.

GERM 319. German Phonetics and Pronunciation (3) III. Practice and theory of German pronunciation; introduction to phonetic principles (transcription and identification of language sounds). Prerequisite: GERM 202, GERM 317 and GERM 318 recommended.

GERM 325. German Folklore (3). On demand. Various genres of verbal folklore; folk literature and relation to formal culture and literature of German-speaking peoples. Prerequisite: reading knowledge of German or GERM 202. POPC 421 recommended.

GERM 331. Workshop in Translation (4) III. Small group work in German to English translation of scientific, technical or business writing, or other types of expository prose in student's specialty. May be repeated to eight hours with different projects. Prerequisite: GERM 231, or GERM 201 with permission of instructor.

GERM 360. Literature in Translation (4) I, II, III. Variable topic course on German literature in translation; may center on authors, periods, genres, or on such themes as ideals of freedom and revolution, war, socialism, sanity and insanity, nature versus technology, religion, crime and punishment, love and sexuality. May be repeated to eight hours with different topics. Prerequisite: previous literature course in any department, or permission of instructor. (Does not count toward German major or minor in arts and sciences or education.)

GERM 380. Topics in German Thought and Culture (1-4). Topic chosen to meet curriculum needs and student requests. May be repeated to eight hours with different topics. Prerequisites or corequisites: GERM 317, and GERM 311 or GERM 312 or GERM 331.

GERM 407. Classical Age of German Literature (4) I alternate years. Selected works from classical period of German literature, especially writings of Goethe and Schiller. Prerequisite: two courses from GERM 311 and/or GERM 312 and/or GERM 313, and GERM 317.

GERM 409. German Romanticism (4) III alternate years. Readings from major authors of romantic era, introduction to theoretical and philosophical representatives. Prerequisite: two courses from GERM 311 and/or GERM 312 and/or GERM 313, and GERM 317.

GERM 410. German Realism (4) II. Major trends of German 19th century literature; drama and important prose forms, such as Novelle. Prerequisite: two courses from GERM 311 and/or GERM 312 and/or GERM 313, and GERM 317.

GERM 411. 20th Century Drama (4) III alternate years. Modern German drama in major representatives from G. Hauptmann to present. Prerequisite: two courses from GERM 311 and/or GERM 312 and/or GERM 313, and GERM 317.

GERM 412. Contemporary German Prose (4) III alternate years. Development of German literary prose from about 1900 to present. Prerequisite: two courses from GERM 311 and/or GERM 312 and/or GERM 313, and GERM 317.

GERM 415. Cultural and Literary Aspects of German Film (4). On demand. Important developments in German film-making. Interrelationship of literary and cultural phenomena and film. Historical development or thematic aspects of film, such as movement of expressionism and early German silent films, or new leftist movement in Germany and its expression through film media.

GERM 417. Advanced Composition and Conversation (4) I. Development of increased facility in speaking and writing. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 or permission of instructor.

GERM 418. Stylistics, Syntax, and Structure of German (4) II. Practice and problems of German writing style and syntax. Descriptive study of grammatical structures; contrastive analysis of English and German. (May be repeated for credit in AYA Salzburg Program.) Prerequisite: GERM 318 and GERM 319, or GERM 417, or permission of instructor.

GERM 419. German Drama Workshop (3) III. Practical advanced linguistic training through active participation in theatrical projects. Advanced phonetics. Methods of utilizing theatrical productions as part of foreign language instruction. Prerequisite: GERM 417.

GERM 431. Advanced German-English Translation (1-4). On demand. Analysis and application of translating techniques; attention to levels and areas of style. Intensive general practice followed by work on individual projects. May be repeated to eight hours with different projects. Prerequisite: eight hours from GERM 317 and/or GERM 318 and/or GERM 331.

GERM 432. Advanced English-German Translation (1-4). On demand. Analysis and application of translating techniques. Expansion of working vocabulary and idiomatic basis in German. Treatment of structural differences between languages through error analysis. General practice; individual projects. May be repeated to eight hours. Prerequisites: eight hours from GERM 317 and/or GERM 318 and/or GERM 331.

GERM 461. Medieval German Literature and Culture (4) I alternate years. Precourtly and courtly literature and culture; generally include *Nibelungenlied*, *Gottfried von Strassburg's Tristan*, and *Wolfram von Eschenbach's Parzival*. Lecture and readings in English. Prerequisite: previous literature course in any department or permission of instructor.

GERM 462. Medieval Practicum (1) I. Readings in original with attention to linguistic features. Required of all majors and minors enrolled in GERM 461; optional for nonmajors. Prerequisite: GERM 202 or permission of instructor.

GERM 463. German Literature and Culture: Renaissance to Baroque (4) I alternate years. German literature and culture from late Middle Ages to Reformation and Baroque periods; includes *Eulenspiegel*, *Brant's Ship of Fools*, *Dr. Faustus*, and *Grimmelshausen's Simplicissimus*. Lecture and readings in English. Prerequisite: previous literature course in any department or permission of instructor.

GERM 464. Practicum: Renaissance to Baroque (1) I. Readings in original with attention to linguistic features. Required of all majors and minors enrolled in GERM 463; optional for nonmajors. Prerequisite: GERM 202 or permission of instructor.

GERM 480. Selected Topics in German (1-5). Topic chosen from literature, culture, or language to meet curriculum needs and student requests. May be repeated to eight hours with different topics. Prerequisite: GERM 318 and two courses from GERM 311 and/or GERM 312 and/or GERM 313 and/or GERM 331 and/or GERM 380.

GERM 482. Introduction to Germanic Linguistics (4) III. Derivation of modern Germanic languages from Proto-Indo-European. Classification and history of Germanic language group. Development of German language to new High German. Prerequisite: GERM 103 or permission of instructor.

GERM 491. Studies in German (1-5) I, II, III. Independent study project for advanced student. May be repeated. Prerequisite: consent of instructor and department chair.

Gerontology (GERO)

GERO 410. Administration and Aging (4). On demand. Public administration in field of aging; legislation, bureaucratic structures, insurance, and model programs. Prerequisite: enrollment in gerontology program and senior standing, or permission of instructor.

GERO 420. Proposal Writing in Gerontology (2). On demand. Research potential, funding, methods, design, and proposal writing on aging. Prerequisite: enrollment in gerontology program and senior standing, or permission of instructor.

GERO 470. Special Topics in Gerontology (1-4). On demand. Independent study on subject matter related to gerontology not otherwise offered. May be repeated. Prerequisite: consent of program director.

GERO 491. Practicum in Gerontology (4-16) I, II, III, IV. Experience in working under supervision in selected agency which provides services to aged. Emphasis on practice rather than observation. May be repeated. Prerequisites: enrollment in gerontology program or permission of program director; junior or senior standing; 2.00 GPA prior to registration. Graded S/U.

GERO 493. Practicum Seminar (1) I, II, III, IV. Analysis of problems and experiences encountered in practicum. Prerequisites: permission of program director and GERO 491. Graded S/U.

Health and Community Services (HCS)

HCS 440. Seminar in Health and Community Services (1-8). On demand. Interdisciplinary study of special health or community service topics. May be repeated. Prerequisite: consent of dean's office.

HCS 491. Field Experience in Parasitology and Medical Entomology (5) I, II, III, IV. On demand. Field or clinical experience in one or more public health, industrial, or agricultural locations. May be repeated at different stations, but not for credit toward graduation beyond first registration. Prerequisite: approval of program director. Graded S/U.

Health Education (HED)

(see health, physical education, and recreation)

History (HIST)

- ◆ **HIST 101. Study of History** (4). Stresses concepts and skills rather than chronology; why history is important as way of thinking and how historian's explanation of human behavior through time links perspectives and findings of other fields of study.
- ◆ **HIST 151. World Civilizations** (4) I, II, III. Comparative study of selected Western and Asian civilizations in terms of how and why economic, social, political, and intellectual factors shaped and defined history of ancient and medieval worlds.
- HIST 152. The Modern World** (4) I, II, III. Comparative study of how and why selected economic, social, political, and intellectual revolutions of the modern world have transformed and are shaping contemporary European and non-Western cultures.
- ◆ **HIST 205. United States to 1877** (4) I, II, III. Political, constitutional, economic, cultural development of U.S. from early settlement to close of Reconstruction.
- HIST 206. United States Since 1877** (4) I, II, III. HIST 205 continued. Growth of American industry, agricultural problems, progressive movement, World War I, postwar economic problems, New Deal, World War II, and aftermath.
- ◆ **HIST 280. China, India, and Japan** (4). Cultures of peoples of nearly half the world population and contrasting historical experiences to American way of life. Cultural, social, and political change/continuity of major Asian countries, including Korea and Vietnam, since Western encroachment. Aimed at understanding Asia through personal involvement in its cultures.
- ◆ **HIST 291. Studies in History** (2-4). Introductory approaches to history. Content and theme vary with instructor. For students electing history for general education or group requirements.
- HIST 301. American Military History** (4) I. Development of American military institutions, policies, strategy, tactics from American Revolution to present. Not open to students with credit in MILS 401.
- HIST 302. Crime, Poverty, and Violence in 19th Century** (4) III. Development of criminal justice systems in England, France, and U.S. Impact of differing national cultures on emergence and development of professional police in these countries.
- HIST 303. World War II** (4) I. How and why Atlantic-European, Mediterranean, and Pacific-Asian theaters of war produced global dynamics in three acts: 1. 1939-1942—German and Japanese expansion, innovative tactics; 2. 1942-43—mobilization and technology, propaganda and intelligence, air and sea war; 3. 1944-45—U.S. and U.S.S.R. counter-expansion, grand strategy, and politics of war.

HIST 305. Bible as History, II: The Old Testament (4). Major problems relating to text, content, and context of Old Testament as historically interpreted in modern Biblical scholarship; keyed to demonstrating authenticity of evidence, integrity of explanation, and continuity of experience found in Bible.

- ◆ **HIST 306. History of Ohio** (4) I, II, III. Precolonial background, early exploration, settlement; Northwest Territory; Ohio in French and Indian War, American Revolution, War of 1812; Ohio's place in national development.
- HIST 307. Afro-American History** (4) I. History of black Americans from African origins, slavery, and emancipation through rural Southern and 20th century urban experiences.
- HIST 309. Latin America: Period Before Independence** (4) I. Latin-American history treating these phases: pre-Columbian; discovery and conquest; colonial; wars of independence. Role of indigenous and European cultures in development of Latin America.
- HIST 310. Modern Latin America** (4) II. Common and unique social, economic, political, and intellectual features of Latin American nations and Latin America in world affairs.
- HIST 315. Slavery in Americas** (4). African slave trade and various slave societies which that traffic gave birth to in Western hemisphere. Emphasis on Cuba, Jamaica, Brazil, and American South.
- HIST 316. Famine and Revolution in Peasant Nations: Historical Roots** (4) III. Indonesia as model to understand problems facing peasant nations in Asia, Africa, and Latin America. European imperial penetration and traditional peasant values; why peasant societies are vulnerable to periodic famine. Revolutionary changes that have transformed England, Russia, Japan, and China to understand what changes must take place if industrialization is to succeed in peasant nations.
- HIST 320. Social History of American Medicine** (4) II. Leading theorists; major social and public policy determinants of health care in America from 1780 to present.
- HIST 323. History of American Journalism** (4). American journalism from colonial newspapers to multimedia age, emphasizing 20th century.
- HIST 325. Business History of the United States** (4). American business in its historical setting from 1607 to present. Interaction between economic and political forces in explaining unique role private enterprise has played in American life.
- HIST 326. Women in American History** (4) II. Major issues and movements in American history that have involved women from colonial period to modern times.
- HIST 338. American Environmental History** (4). Three centuries of changing American attitudes and actions toward natural environment; rise of conservation movement and development of ecological perspective.
- HIST 340. World of Bible** (4) I. Major civilizations of ancient Near East (Mesopotamia, Egypt, Syria, and Israel); defining, comparing, and contrasting Oriental and Biblical social traditions as embodied in respective institutions, art, literature, religion.

HIST 357. English Origins of American Law (4) II. Medieval and early modern English history; origin and growth of legal and constitutional doctrines, institutions, and procedures important to understanding American legal system.

HIST 360. Major Personalities of 20th Century (4). Biographical study of individuals whose lives made substantial changes in aspects of modern society, examined both as individuals and as representatives of major movements of 20th century.

HIST 363. French Revolution and Napoleon (4) II. Impact of French Revolution on society of Old Regime; formation of revolutionary creed; Great Revolution, Jacobin Republic, Thermidor; Napoleon and principles of 1789.

HIST 367. Hitler's Germany: Rise and Fall of Nazism (4) III. Major developments in Germany from defeat in 1918 through collapse in 1945 and recovery in Cold War era. Weimer Republic, Hitler, Third Reich, post-war reactions and conditions; keyed to causes and effects of Nazi totalitarianism and racism.

HIST 377. 20th Century Europe (4) I. Aspects of European historical development in 20th century; major forces, events, and experiences which have shaped Europe and its place in contemporary world.

HIST 381. United States and Asia (4). U.S. relations with China, Japan, India, and southeast Asia in 20th century; interaction of domestic politics and foreign policy; Asian nationalism, militarism, communism; America's involvement in wars and peace-making.

HIST 382. Chinese Culture and Institutions (4) I. Unique cultural and institutional developments of traditional China and relations with Korea. Intrinsic value of broadening perspectives through exposure to major non-Western cultural experience.

HIST 386. Japanese Culture: Multi-Media Approach (4) II. Higher culture in traditional Japan. Religion, visual arts, literature, theatre, and uniquely Japanese arts. Political and institutional history as it relates to cultural development.

HIST 391. Special Studies in History (2-4) I, II, III. Content and theme vary with instructor. Designed to meet needs and interest of nonmajors.

HIST 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format used. Requirements usually completed within time format. May be repeated if topics differ on approval of adviser.

HIST 401. Caesar and Christ: Social Worlds of Late Antiquity and Early Christianity (4). Basic issues and problems involved in tensions and conflicts between pagan and Christian that were eventually accommodated in 4th century A.D.; social disaffection, political resistance, and cultural alienation.

HIST 411. Modern Mexico (4) III. Analysis of first Latin-American state to experience political, social, and economic revolution in 20th century; causes of the revolution, leaders and institutions produced, emergence of Mexico as relatively stable and progressive state.

HIST 413. Caribbean and Spanish Main (4) III. Political, economic, and social development of Greater Antilles and Spanish Main from 17th to 20th centuries; war and trade, slavery, revolution, caudillism, and communism in Caribbean.

- HIST 414. Canada (4) I.** European colonial rivalry, problems of European-settled colonies, emergence of colonial self-government, confederation movement, search for national identity, nature of commonwealth nation, role as mediator in Anglo-American relations, importance as independent neighbor.
- HIST 415. Spain and Portugal (4) II.** Political, economic, and social development of Iberian peninsula from invasion of Moors to 20th century dictators; reconquest, reign of Hapsburgs, Spanish Civil Wars, regimes of Franco and Salazar.
- ◆ **HIST 419. Westward Movement in America (4) I.** Development of Trans-Mississippi West during 19th century; American Indian, territorial expansion, sectional conflict, economic development.
- HIST 420. Topics in American West (4) II.** Selected topics in history of Trans-Mississippi West; frontier literature, territorial system, California, conservation, Indian affairs, modern west.
- ◆ **HIST 421. American Colonial History, 1492-1763 (4) I.** European backgrounds of American history, establishment of European settlements and institutions, emergence of colonial culture, conflict between France and England for New World.
- ◆ **HIST 422. American Revolutionary Era, 1763-1815 (4) II.** Causes, course, and consequences of War for Independence; organization of government and emergence of national party system; economic, social, diplomatic problems of young republic.
- HIST 425. Conflict and Division in U.S. (4) I.** Economic, social, political institutions of 1815-1860; Old South and forces that produced Civil War.
- HIST 426. Civil War and Reconstruction, 1861-1877 (4) II.** Political, economic, and cultural conditions during War; resulting problems to peoples and governments of both sections continuing through postwar period.
- HIST 427. American South, 1865-Present (4) III.** Reconstruction South, new industrial growth, evolution of Southern agriculture, racial and labor problems, South in American political life, southern education and culture, South today.
- HIST 428. Emergence of Modern America 1877-1900 (4) III.** Transformation of U.S. from isolated, agrarian nation into modern, industrialized world power; economic, social, cultural, and political problems which attended this change.
- HIST 429. Progressive Era and Years of Republican Ascendancy, 1900-1933 (4) I.** American political and economic progressivism; great crusade of World War I; "normalcy" and business society of Twenties; great crash and early depression years; intellectual, cultural, social change of Roaring Twenties.
- ◆ **HIST 430. Recent U.S. History (4) II.** Voter alignment and main political issues since New Deal. Affluence, conformity, liberation, counter-culture, New Left, Middle America.
- HIST 432. American Constitutional History (4) II.** Colonial and revolutionary origins of American federal system as embodied in Constitution of 1787. Subsequent development of democratic government and impact of territorial expansion and industrial development on political cohesion of nation (in relation to continued use of slave labor) up to outbreak of Civil War.
- HIST 433. American Constitutional History (4) III.** Civil War interpreted as second American revolution culminating in reconstruction of nation to national republic (from federal states-rights republic) by passage of 13th, 14th, and 15th amendments. Subsequent regulation of business corporations in urban industrial economy; growth of social welfare state; expansion of presidential power; extension of civil rights to all citizens.
- HIST 435. American Social History to 1900 (4) I.** Major currents in American social and cultural life from middle of 18th century to beginning of 20th; religion, regionalism, racial and gender relationships.
- HIST 436. 20th Century American Social History (4) II.** Major currents in American social and cultural life during 20th century, social organization and literary and artistic expression.
- HIST 437. U.S. as World Power in 20th Century (4) I.** American involvement in world affairs; imperialism in Asia and Latin America; World War I—response to German militarism and Russian communism; postwar "isolationism"; World War II—background to Pearl Harbor, wartime alliances, peace settlements; preview of rivalries and frustrations of Cold War in Europe and Asia.
- HIST 438. U.S. Foreign Policy: World War II-Present (4) II.** Origins of Cold War and containment policy toward Soviet Union. U.S. response to communism in China. Korean War: complex causes and controversial strategies. U.S. involvement in and failure in Vietnam. Cuban missile crisis and movement toward "detente".
- HIST 441. Classical Hellenism (1000-400 B.C.) (4) II.** Ancient Greek society and culture from "dark ages" through "golden age" of 5th century. Resourcefulness of Hellenism in democratic politics, imperialistic policies, and classic products of Periclean Athens. Weakness of Greek civilization in coping with crises engendered by Atheno-Peloponnesian war.
- HIST 442. Roman Revolution: From Gracchi Through Caesar Augustus (4) III.** Crisis of social turbulence, political violence, and cultural ambivalence that marked Rome's transition from city-state to world state; inquiry into how and why Roman archaism, republicanism, and imperialism contributed to collapse of Late Republic and creation of Early Empire.
- HIST 443. Medieval Civilization, 476-1000 (4) II.** Political, social, economic, cultural developments from fall of Rome to emergence of feudal Europe; some developments in Islamic and Byzantine East.
- HIST 444. Medieval Civilization 1000-1400 (4) III.** Political, social, economic, cultural trends during high and late Middle Ages; relations between West and Byzantine and Islamic East.
- HIST 445. Renaissance Europe: 1350-1550 (4) II.** Continuity and change in political, economic, social, and cultural forces of late medieval world that mark beginnings of modern Europe. Evolution of Renaissance world-view as evident in arts, literature, and thought.
- HIST 446. Reformation Europe: 1500-1700 (4) III.** Europe's struggle to create framework of authority and stability out of division and disorder. Religion, internal politics, and international relations, as key elements; compares experiences of England, France, Holy Roman Empire, Netherlands, and Spain.
- HIST 447. Early Modern European Society and Thought: 1500-1815 (4) I.** Major social and intellectual trends in early modern Europe: Protestantism, capitalism, and rise of middle classes, early social movements among rural and urban laborers, the enlightenment, social conflict during French Revolution.
- ◆ **HIST 448. 19th Century European Society and Thought: 1815-1914 (4) II.** Major social and intellectual trends in 19th century; romanticism, liberalism, utopian socialism, Marxism; rise of working-class organizations, Fin de Siècle revolt.
- ◆ **HIST 449. Recent European Society and Thought 1914-Present (4) III.** Recent developments in European society: development of European communism; Freudianism; fascism as ideological and social movement; existentialism and post-war disillusionment; recent trends in Marxist thought.
- HIST 453. European Foreign Relations, 1815-1914 (4) I.** European foreign relations and diplomatic practices; policies and actions of great powers and their statesmen; 19th century balance of power, impact of new and changing forces on European state system, emergence of Germany, and coming of World War.
- HIST 454. European Foreign Relations, 1914-1960 (4) II.** Foreign policies and diplomatic practices of great powers and their statesmen; course and impact of World War; postwar quest for peace and stability; origins, course, and effects of World War II; Europe in Cold War.
- HIST 457. England, 55 B.C.-1485 (4) I.** Roman Britain, Anglo-Saxon England and institutions, Norman and Angevin period—feudalism, legal and parliamentary developments, and culture War of Roses.
- HIST 458. England, 1485-1783 (4) II.** Tudor-Stuart England—Reformation, constitutional development, civil war, Revolution of 1688, and colonial development. Hanoverian Britain—political and constitutional structure, Enlightenment, colonial rivalry, and imperial development.
- HIST 459. Great Britain, 1783-Present (4) III.** Industrial and agricultural changes, struggle with revolutionary France, Victorian England, political and economic reform, two world wars and consequences.
- HIST 462. British Empire-Commonwealth (4) III.** Rationale of imperialism, expansion of Britain overseas, development of colonial holdings; evolution of concept and reality of Commonwealth of Nations.
- HIST 464. History of France Since 1815 (4) III.** Social and economic development of France, 1815-Third Republic; Jacobin radicalism, emergence of French labor movement; France between two world wars; Vichy and the Resistance; problems of Fourth and Fifth Republics.
- HIST 469. Medieval and Imperial Russia, 900-1825 (4) I.** Racial, political, and religious origins; development of autocracy; national and imperial problems to death of Alexander I.
- ◆ **HIST 470. Modern Russia, 1825-1945 (4) II.** Revolutionary origins; social, economic, political position in 19th and 20th centuries.
- HIST 471. Education and Revolution in Russia (4).** Russian-Soviet struggle to create perfect society dominant in world through interplay of education and revolutionary ideology as reciprocal political tools.

HIST 481. History of Africa, 18th Century-Present (4) II. Anti-slavery movement, rise of forest and savannah kingdoms, Islamic revival, impact of Christianity, European exploration, imperialism, colonialism, nationalism, and rise of modern African states.

HIST 483. Revolution and Tradition in Modern China (4) II. China from decline of Ch'ing dynasty to rise of People's Republic. Problems of culturalism, nationalism and Maoist strategy for successful peasant revolution, China's cultural legacy, struggles for unity and independence, China's relations with U.S.

HIST 486. Japan: New Superstate (4) III. Japan's successful modernization since "opening" to West in 1853; political development, industrialization, expansion; Japan's rise from defeat in World War II to world economic power.

HIST 490. Senior Seminar in History (4) I, II, III. For selected senior history majors. Examination of historical literature, problems of historical research, discussion of various historical methods. Open to history majors by invitation only.

◆ **HIST 491. Topics in History** (3-5). On demand. Study of selected topics or subject areas.

HIST 495. Readings in History (1-5) I, II, III. Individual readings in consultation with instructor in fields of special historical interest. Prerequisite: consent of department chair and instructor.

Home Economics (HOEC)

◆ **HOEC 100. Costume Design and Clothing Selection** (3) I, II, III. Aesthetic principles of design and consumer buying practices of clothing and textiles.

HOEC 101. Clothing (3) I, II, III. Analysis of clothing construction methods through evaluation of basic techniques and construction of two garments. Two one-hour periods and one two-hour period. May be waived through exemption test (see adviser) before first day of fall quarter.

◆ **HOEC 103. Textiles** (4) I, II, III. Fiber, yarn, and fabric structures; finishes; color and design. Selection and care of fabrics for personal and household uses. Three one-hour periods, and one two-hour period.

◆ **HOEC 105. Personal and Family Relationships** (4) I, II, III. Growth and development of college student as individual and in social relationships in family, college, community; activities and functions of present-day family.

HOEC 107. Black Families in America (4) I, II, III. Living patterns of American black family; historical development, present status, strengths, problems, and prognosis.

◆ **HOEC 120. Survey of Child and Family Community Services** (3) I, II, III. Institutions serving young children and families. Principles underlying effective services, including qualifications and preparation essential for professional work with people. Two hours of lecture and two hours of participation. Designed for child/family and early childhood education students. Must have access to car.

◆ **HOEC 123. Introduction to Early Childhood Education** (4) I, II, III. Conceptualization of early childhood education. Experiences provided in different programs from infancy through primary grades. Careers in early childhood education and competency-based criteria for teachers of young children.

HOEC 195. Telecourse on Current Topics in HOEC (1-4) On demand. Selected introductory topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.

HOEC 202. Intermediate Clothing and Basic Flat Pattern (4) I, II, III. Advanced construction including couture methods and basic flat pattern techniques as related to alterations, fit, and design. Two one-hour periods and two two-hour periods. Prerequisites: HOEC 100 and HOEC 101 and HOEC 103.

HOEC 204. Introduction to Fashion Merchandising (3) I, II. Fashion concepts and terminology, organization of fashion industry, career opportunities. Three one-hour lectures. Prerequisites: HOEC 100 and HOEC 101 and HOEC 103.

◆ **HOEC 205. Home Management** (4) I, II, III. Effect of values and philosophy on decisions regarding use of family resources: time, energy, knowledge, ability, skills, and attitudes as used to achieve family goals. Work simplification, history of discipline, and evaluation in home management.

HOEC 206. Household Equipment (4) I, II, III. Selection, operation, care, and arrangement of household equipment for safe operation and effective management.

◆ **HOEC 207. Essentials of Nutrition** (4) I, II, III. Nontechnical course. Application of fundamental principles of nutrition in selection of adequate diet for optimal health. Not open to home economics education, foods and nutrition, or dietetics majors.

HOEC 210. Fundamentals of Food Science (5) I, II, III. Chemical and physical properties of foods and changes that take place in food preparation. Two one-hour lectures and three two-hour laboratories. Uniforms required. Prerequisite: CHEM 112 or CHEM 122.

HOEC 212. Meal Management (4) I, II, III. Management of resources for various types of meal service including food selection and buying. Two one-hour periods and two two-hour periods. Prerequisite: HOEC 210.

HOEC 219. Sewing Techniques for Interiors (4) II. Fundamental sewing techniques related to construction of products for residential and commercial interiors.

HOEC 223. Child Study (3) I, III. Development of observational competencies; emphasis on case study. Methods of studying behavior patterns of young children as individuals and in group situations. Two one-hour class periods plus two hours of observation each week.

HOEC 224. Creative Experiences for Young Children (3) I, II, III. Techniques for introduction of creative experiences to young children in art, music, literature, drama, and movement.

HOEC 250. Foundations of Home Economics Education (4) I, III. Introduction to home economics education, the profession, role of teacher, understanding students; development of teaching strategies, including peer teaching, through field and clinical experiences. Required for all home economics education majors. One two-hour seminar and one four-hour field experience in school setting. No S/U grade for home economics education majors. C/F hrs: 50.

◆ **HOEC 289. Supervised Field Experience** (1-2) II, III, IV. (May be repeated, but only two hours may be applied toward graduation.) Supervised paid work experience of diversified nature in industry or community service occupation at entry level related to student's major. Students receive credits for six (full day) work weeks or 240 hours of on-job experience in position with prior department approval. Only field course acceptable for job training certification. Graded S/U.

HOEC 295. Telecourse on Current Topics in HOEC (1-4) On demand. Selected advanced topics; departmentally supervised presentations via television complemented by seminars or other student-teacher interaction in groups or individually.

HOEC 301. Presentation Techniques in Home Economics (3) I, II, III. Presentation principles and application of techniques for professional, business, and educational settings related to home economics. Prerequisite: SPCH 102. Two two-hour periods and one non-scheduled period.

HOEC 302. Foundations for Marriage and Family Relations (4) I, II, III. Assist in development of basic philosophy about marriage and family development in democratic society. Emotional, psychological, and physical relationships to personal aspirations, social requirements, and family interrelationships. Prerequisite: HOEC 105 or SOC 101 or consent of instructor and junior or senior standing.

HOEC 303. Home Furnishing (4) I, II, III. Principles of design and application to treatment of interiors; selection of furniture, furnishings and accessories from artistic, economic, and maintenance point of view. Prerequisite: ART 101 or 102.

HOEC 305. Integrating Career and Family (4) On demand. Issues facing dual-career families; applied problem-solving as approach to family decision making, communication, childrearing, career patterning. Not open to students with credit for BA 305.

HOEC 307. Nutrition (5) I, III. Principles of nutrition; applications to planning of diets for individuals under different conditions. Four one-hour periods and one two-hour period. Prerequisites: HOEC 212, and CHEM 213 or CHEM 306.

HOEC 310. Microwave Oven Applications (3) II. Selection, care and effective use of microwave oven and accessories involving laboratory experiences. Two two-hour periods. Uniforms required. Prerequisites: HOEC 206 and HOEC 210, or consent of instructor.

HOEC 311. Home Management Residence (4) I, II, III. Residence in home management. Fee: \$25 plus cost of food and other supplies; hours by appointment; application for residence required. Prerequisite: HOEC 205 and HOEC 307; junior standing. Graded S/U.

HOEC 312. Dress Design Through Draping (3) II, III. Principles and techniques of draping used in creative clothing design. Techniques in handling various fabrics and application of couture methods of construction. Development of original design from sketch to finished garment. Three two-hour periods. Prerequisite: HOEC 202.

HOEC 313. Advanced Textiles (3) I, III. Application of textile learnings through examination of consumer textiles from standpoint of selected end uses; emphasis on new technology. Two one-hour periods, one two-hour period. Prerequisite: HOEC 103.

HOEC 319. Intermediate Interior Design (3) I, II. Basic design principles and their application in problem-formulating and problem-solving processes relevant to interior design. Three two-hour studios. Prerequisite: HOEC 303 and DESN 301.

- ◆ **HOEC 320. Infant Development** (3) I. Growth and development from prenatal stages through toddler stage. Prerequisite: PSYC 201.

HOEC 321. Child Development (3) I, III. Growth and development of pre-school child. Two one-hour periods and two hours of observation arranged. Prerequisite: HOEC 320.

HOEC 322. Nursery School Practicum (3) I, II, III. Supervised-nursery school participation. One two-hour period and one four-hour participation period. Prerequisite: HOEC 321 or EDFI 342. Must apply in the CDC office one quarter prior to participation.

HOEC 324. Personal Clothing (3) III. Designed for non-majors. Basic construction and fitting techniques using commercial patterns. Not open to student with credit for HOEC 101. One one-hour period and two two-hour periods.

HOEC 325. Meal Service (4) I, II, III. Nontechnical course in food preparation and meal service. Two one-hour periods and two two-hour periods. Uniform required. Not open to home economics majors with credit for HOEC 210.

HOEC 326. Foods of Other Cultures (3) II, III. Preparation and service of foods of different cultures. Geographical, economic, and cultural factors influencing food habits in selected foreign countries and regions of U.S.A. Two one-hour and one three-hour period. Uniform required. Prerequisite: HOEC 210 or HOEC 325.

HOEC 327. Young Child (4) I, III. Aspects of development in early years from conception to school age; family as agent of socialization. Current child development theories. Not open to Child and Family Development or Children's Services majors.

HOEC 328. Preadolescent and Adolescent in Family and Community (4) I. Developmental and socialization patterns of preadolescents and adolescents. Analysis of ancillary youth-culture functions and problems. Development of basic competencies useful when interacting with youth. Prerequisites: PSYC 201; or HOEC 327; or HOEC 320 and HOEC 321; or EDFI 302 or EDFI 342; or permission of instructor.

HOEC 331. Quantity Food Production and Management (5) I. Principles for production of quality foods for institutional service. Menu planning, purchasing, and use control in food service industry. Three one-hour periods and four hours clinical experience. Prerequisite: HOEC 212.

HOEC 333. Institutional Kitchen Planning, Equipment Selection, and Layout (3) II. Floor plan drawing and interpretation, development of production flow charts, and traffic patterns. Selection and placement of equipment in institutional kitchens and dining facilities. Selection of floor and wall finishes and sanitation facilities. Two two-hour periods. Prerequisite: DESN 301 or DESN 450.

HOEC 352. Home Economics in Secondary Schools (4) I, II. Principles, objectives, curriculum, instructional materials, and methods of vocational home economics. Prerequisites: HOEC 250 and EDFI 302 and junior standing. No S/U grade for home economics education major. C/F hrs: 10.

HOEC 353. Organization and Teaching in Vocational Job Training Program (4) II, III. Techniques of teaching, occupational analysis, curriculum planning, and supervision of cooperative education in vocational and technical schools. Field experience included; must have access to car. Prerequisite: HOEC 352. No S/U grade for home economics education majors. One one-hour period and one four-hour period each week. C/F hrs: 20.

HOEC 354. Curriculum Management in Home Economics (2) I, II, III. Field experience and coordinated seminar to study curriculum management as it differs in urban, suburban, or rural schools. Required of all home economics education majors. Students are responsible for making arrangements with schools after consultation with faculty member from home economics education. Must be repeated at least once. No S/U grade for home economics education majors. Prerequisites: HOEC 352 and HOEC 353. C/F hrs: 45 + 45.

HOEC 387. Child-Family Practicum (2-6) I, II, III, IV. Supervised field-base practicum with agencies offering human services. Three weekly service hours required for each credit hour received. Attendance at weekly seminar also required. Prerequisites: HOEC 322 and 2.25 GPA in major. Graded S/U.

HOEC 388. Professional Work Experience (2-5) I, II, III, IV. Supervised work experience of diversified nature in fashion merchandising, interior design, or textiles and clothing. One credit for 80 hours of on-job experience in position approved by program supervisor. Repeatable; however, only five credit hours count toward graduation. Graded S/U.

HOEC 389. Supervised Field Experience (2 or 5) I, IV. Supervised work experience of diversified nature in industry or community service occupation at intermediate level related to student's intended major area of concentration. Students receive one credit for every two full weeks of on-job experience in department-approved position. Prerequisite: consent of department. Graded S/U.

HOEC 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format used. Requirements usually completed within time format. May be repeated on approval of adviser.

HOEC 401. History of Costume (3) I, III. Development of western costume from Egyptian times to present; emphasis on relation to modern costume.

HOEC 402. Fashion Merchandising (4) II, III. Selection and marketing of fashion merchandise and forces which influence fashion. Prerequisites: HOEC 202 and senior standing.

HOEC 403. Sociological and Psychological Aspects of Clothing (3) II, III. Cultural, sociological and psychological factors influencing clothing habits of individuals and groups as related to their environment. Three one-hour periods. Prerequisites: SOC 101 and PSYC 201 and junior standing.

HOEC 404. Tailoring (4) I, II. Specialized techniques of professional tailoring through construction of suit or coat. Review of recent developments in textiles, and construction methods. Two one-hour periods and two two-hour periods. Prerequisite: HOEC 202.

HOEC 405. Family and Consumer Economics (5) I, II, III. Families' financial planning; consumer decisions in relation to patterns of living income, and goals. Not open to students with credit for BUSE 240. Three one-hour and one two-hour period.

- ◆ **HOEC 406. Housing the Family** (4) I, II, III. Procuring, maintaining, financing, and adapting housing for families with varying living patterns. House design and structure; site and neighborhood planning; government role in housing.

HOEC 407. Problems in Family Relationships (5) I, III. Structure, functions, and problems of present-day families in U.S.; learning methods of research in family life. Four scheduled and one unscheduled periods. Prerequisite: HOEC 105 or consent of instructor.

HOEC 408. Investigations in Family Life of Minority Groups (4) I. Directed investigation of family life of racial and cultural minority groups in U.S. Prerequisite: senior standing.

HOEC 409. Household Activity Analysis (4) III. Work methods, work place and characteristics of worker in relation to solving work problems of employed, full-time, handicapped, and other special groups of home managers. Prerequisite: HOEC 205 or permission of instructor.

HOEC 410. Studies in Home Economics (5) II, III. Integrative study which examines areas of home economics; emphasis on recent developments. Prerequisite: HOEC 352.

HOEC 412. Advanced Flat Pattern Design (4) I, II. Creative expression and application of principles of apparel design through media of flat pattern. Development of original design from sketch to finished garment. Two one-hour periods and two two-hour periods. Prerequisite: HOEC 202.

HOEC 413. Advanced Home Management (4) II. Recognition, integration, and application of management principles and concepts in variety of family managerial situations. Prerequisite: HOEC 205 or permission of instructor.

HOEC 414. Experimental Clothing Construction (3) II, III. Experimental approach to study of factors influencing construction of apparel. One one-hour period and two two-hour periods. Prerequisite: HOEC 202.

HOEC 415. Home Management for Low Income Families (4) III. Managerial behavior of economically deprived families. Improving managerial skills in identifying, conserving, increasing, and using resources to realize family values and goals. Prerequisite: HOEC 205 or consent of instructor.

HOEC 416. Advanced Household Equipment (4) I. Current trends, development, and research in household equipment; implications for consumer. Research projects related to students' professional interests required. Prerequisite: HOEC 206 or consent of instructor.

HOEC 417. Home Furnishings Laboratory (4) I, III. Renovation and construction of various furnishings including refinishing, upholstering, slip covering, and drapery making for home and professional purposes. Two one-hour lectures and two two-hour laboratories. Prerequisites: HOEC 103 and HOEC 303, or instructor.

HOEC 418. Historic Furnishings and Interiors (4) I. European and American furniture from 14th through 20th centuries with corresponding interiors; including wall, window, and floor treatments and decorative arts. Prerequisite: HOEC 303.

HOEC 419. Advanced Interior Design (4) I. Application of design principles. Spaces and their specific planning to facilitate a particular function. Four two-hour studios. Prerequisites: HOEC 319 and HOEC 313, or permission of instructor.

HOEC 421. Parent Education (3) I, II. History and philosophy of parent involvement and application of trends in parenting; "parent educator" role, influence of federal and state policies relative to young children's programs, and information on child abuse.

HOEC 422. Concept Development of Young Children (3) II, III. Review of contemporary theories of intellectual development of young children; examination of research pertaining to specific concept areas.

HOEC 423. Organization of Centers for Young Children (3) I, III. Factors considered in organization and management of centers for young children.

HOEC 424. Children Under Transitory Stress (3) On demand or alternate years. Normal infants' and children's efforts to cope with physical situational stresses such as short term hospitalization, death, serious illness, separation from family, divorce, and birth of siblings. Prerequisites: PSYC 201, HOEC 320, 321, and 322.

HOEC 425. The Hospitalized Child: Exploration of Hospital Environments (4) On demand or alternate years. Theory, research, and practice from home economics, nursing and pediatrics for understanding needs of hospitalized children and related family dynamics. Prerequisites: HOEC 105, 320, 321, and 322.

HOEC 426. Studies in Individual and Family Potential (4) I, II. Theories of human behavior and family interaction that provide for human sciences various definitions of what constitutes "fully functional" family and personal relations. Concepts of family interaction which focus on family communication patterns and suggest alternative patterns of family adjustment to internal and external stress. Prerequisite: HOEC 105 or HOEC 302 or permission of instructor.

HOEC 427. Facilitation of Individual and Family Potential (4) III. Builds on prerequisite course in family potential. Emphasis given to acquiring personal skills and personal awareness which facilitate effective interpersonal-familial and/or professional functioning. Methods of affirming self-esteem, encouraging authentic communications, and stimulating personal growth. Prerequisites: HOEC 105 or HOEC 302, and HOEC 426; or permission of instructor.

HOEC 428. Sexuality and the Family (4). On demand. Interrelationships of areas of human sexuality and family development/interaction. Intended for students with solid background in sexual physiology and psycho-social aspects of human sexuality. Prerequisite: PSYC 307 or HED 338.

HOEC 429. The Family in the Later Years (4). On demand. The family in the later years, emphasis on relationship between spouses, and with children and grandchildren; identification of factors associated with applied problem areas for such families.

HOEC 431. Experimental Foods (4) II. Experimental methods in quality control and recipe standardization. Scientific reasoning applied to methods of food preparation. Subjective and objective evaluation of results. Two one-hour periods and two three-hour periods. Prerequisites: HOEC 212, and CHEM 306 or CHEM 213.

HOEC 432. Advanced Nutrition (4) III. Interpretation and analysis of nutrition literature and related research. Principles of nutrition in diets for healthy humans. Three one-hour periods, one four-hour clinical. Transportation required. Prerequisites: HOEC 307 and CHEM 308 and CHEM 309, or consent of instructor.

HOEC 433. Advanced Food Production Management (5) III. Management and administrative practices, selection, direction and training of personnel. Scheduling, wage scale, and salesmanship in industrial food service. Three one-hour periods and one half-day clinical. Prerequisites: HOEC 331, and MGMT 354 or MGMT 361.

HOEC 434. Diet Therapy (5) I. Planning special and modified diets in abnormal conditions and disease. Four one-hour periods, one four-hour clinical. Transportation required. Prerequisite: HOEC 432.

HOEC 435. Nutrition for Infants and Young Children (3) I, II. Nutrition of infants and children in health and disease, from prenatal period to adolescence. Two one-hour lectures and one two-hour laboratory. Prerequisites: HOEC 327 or HOEC 321, and HOEC 207 or HOEC 307.

HOEC 436. Nutrition for the Aging (3) I, III. Nutritional needs of aged; menu planning, purchasing, and preparation of food. Psychological, physiological, and socio-economic factors affecting dietary problems, practices, and preferences among elderly in individual and group living situations. Two hours of lecture, two hours of clinical experiences weekly. Prerequisite: HOEC 207 or HOEC 307.

HOEC 440. Professional Ethics and Practices (4) II. Interior design management and operation; professional exposure to business practices; transaction, formats, procedures, and methods of problem solving.

HOEC 480. Seminar in Home Economics (1-3) I, II, III. Current selected topics not covered by existing course work examined in depth. Each curriculum program in department may offer this course on demand. Repeatable once. Undergraduate credit only.

HOEC 488. Internship in Childlife (15) On demand or alternate years. Hospital playroom experience under supervision on full-day basis. Required of students in child life program. Conferences and seminars complement the course. Prerequisites: enrollment in child life cognate and completion of cognate course work.

HOEC 489. Internship (5-10) I, II, III, IV. Professional internship in clinical environment. Individualized full-time assignments. Prerequisite: completion of all required course work. May be repeated. Graded S/U.

HOEC 490. Problems in Home Economics (1-5). On demand. For advanced students who want to conduct intensive study of selected problems in home economics. For undergraduate credit only. Prerequisite: consent of department chair.

Humanities (HUM)

† **HUM 101. Introduction to the Humanities** (4). Experience of art including music, film, theatre, literature, dance, painting, sculpture, architecture, philosophy, and the combined arts. May be used as an elective.

Industrial Education (IE)

(See technology)

Industrial Engineering Technology (INET)

- † **INET 121. Industrial Organization** (2). Industrial organizations; problem solving, communications, structure of business, organization theory and functions.
- † **INET 122. Business Decisions** (4). Using basic algebra and calculus as tools for determining profit and loss statements, financial ratios, breakeven charts, balance sheets.
- † **INET 123. Basic Manufacturing Processes** (4). Discussions of properties, structures, and processing of metallic and non-metallic materials.
- † **INET 131. Operations Analysis** (6). Emphasis on engineering graphics as pertains to the preparation of flow process charts, man/machine charts, and multiple activity charts.
- † **INET 132. Motion Study** (3). Fundamentals of motion study and its relationship to job descriptions, analysis, and evaluation.
- † **INET 133. Statistics for Work Sampling** (2). Sampling, probability; organizing and analyzing statistical data as related to work sampling.
- † **INET 134. Time Study** (6). Responsibilities of a time study technician and equipment utilized; emphasis on performance, rating, conducting a time study, determining allowances, work sampling.
- † **INET 135. Methods-Time Measurement** (4). Determination of standard data for various jobs; emphasis on time and motion study.
- † **INET 136. Methods Study** (3). Application of principles of a breakeven analysis, motion and time study and standard data to cost estimating. Completion of progress report pertaining to methods study project included.
- † **INET 140. Production Control: Concepts & Problems I** (4). Production-Inventory systems; forecasting and planning for production; scheduling for high volume production, operation sequencing, balancing.
- † **INET 141. Production Control: Concepts & Problems II** (4). Application of logic on production planning, job shop planning and control, network planning, scheduling and design of production planning systems.
- † **INET 142. Inventory Control** (6). Organizing and analyzing statistical data, sampling, probability, economic lot and order quantities, inventory costs, inventory control functions.
- † **INET 143. Quality Control** (4). Quality assurance; product reliability; acceptance, attribute, and variable sampling; control charts as related to quality control.
- † **INET 144. Cost and Budget Control: Project Planning** (6). Budget functions, concepts and responsibilities, budget variance analysis; Completion of a production planning project.
- † **INET 251. Plant Location** (2). Factors having impact on location of an industrial facility.
- † **INET 252. Plant Layout** (5). Methods utilized in plant layout to determine best relationship between output, space, and manufacturing cost.
- † **INET 253. Utilities and Maintenance I** (5). Fundamental electrical power and equipment; heating and air conditioning; lighting and National Electrical Code.

- † **INET 254. Utilities and Maintenance II** (5). Plant heating and cooling systems, air control, preventive maintenance, safety, OSHA rules and regulations.
- † **INET 255. Material Handling** (5). Determination of materials handling equipment for fixed and variable path and cost estimating for plant construction. Completion of a facilities planning project required.
- † **INET 261. Union-Management Relations** (4). Development of American unions, methods of communication within an enterprise, collective bargaining, grievance procedures.
- † **INET 262. Wage and Salary Administration** (3). Straight-time and incentive plans, production efficiency, various supplemental plans.
- † **INET 263. Management Techniques** (2). Procedures used by management for job enrichment and rotation, management by objective, promoting ideas.
- † **INET 271. Management Science Applications** (4). Familiarization with and use of programmable calculators to solve various business matters.
- † **INET 272. Social Responsibilities of Business** (3). Population growth and its impact upon the economy, automation and positive or negative implications of jobs, influence of inflation on upper, middle, and lower class citizens, employer responsibilities to management and labor.
- † **INET 273. Advanced Processes and Materials** (3). Production of a videotape on specific topic, synthesis of knowledge to solve problem areas in a given industry, completion of a project in a specific business function.

Industrial Environment Technology (ENVR)

(See technology)

Insurance (INS)

- INS 300. Principles of Insurance** (4) I, II, III, IV. Basic concepts of insurance and risk handling including analysis of insurance company functions; auto, homeowners, liability, life and health insurance from consumer point of view.
- INS 465. Property and Liability Insurance Coverages** (4) I. Protection provided by and legal aspects of fire, casualty, transportation, worker's compensation, multiple-lines, and corporate surety-ship insurance coverages. Prerequisite: INS 300.
- INS 466. Property and Liability Insurance Company Operations** (4) II. Functional aspects of property-liability insurance companies; types of insurance carriers, marketing and underwriting problems, agency-carrier relationships, reinsurance, rate-making, financial analysis, and regulation. Prerequisite: INS 465 or permission of instructor.
- INS 467. Life Insurance** (4) II. Economic and social aspects of life insurance; structure of life insurance, annuity contracts; calculation of premiums, reserves, surrender values, dividends; contract provisions and legal principles. Prerequisite or corequisite: INS 300.
- INS 469. Advanced Life Insurance** (4) III. Advanced insurance topics; group life and health insurance, pension plans, social security; concepts involved in developing well integrated life and health insurance program. Prerequisite: INS 467 or permission of instructor.

INS 470. Risk Management (4) III. Management of corporate risk; evaluation, control, prevention, retention, treatment of risks in foreign countries; accounting and tax aspects considered. Case problems supplement textual assignments. Prerequisite: INS 465 or permission of instructor.

INS 491. Studies in Insurance (1-4). On demand. In-depth study of selected areas. Offered to individuals on lecture basis or as seminar depending on student needs and nature of material. May be repeated to eight hours.

Interpersonal and Public Communication (IPCO)

(See speech communication)

Italian (ITAL)

- ***ITAL 101. Elementary Italian I** (4) I, II. Oral-aural study of language with attention to grammar. Four class periods and scheduled oral practice each week.
- ***ITAL 102. Elementary Italian II** (4) II, III. ITAL 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: ITAL 101.
- ***ITAL 103. Elementary Italian III** (4) I, II, III. ITAL 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: ITAL 102.
- ***ITAL 201. Intermediate Italian I** (4) I. Four class periods and scheduled oral practice each week. Prerequisite: ITAL 103 or two years of Italian in high school.
- ***ITAL 202. Intermediate Italian II** (4) II. ITAL 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: ITAL 201 or three years of Italian in high school.
- ITAL 261. The Italian Cinema** (3). Modern Italian culture and literature movements and their expression in cinema; demonstrates close relationship between literature and cinema. In English.
- ITAL 351. Italian Composition and Conversation I** (3). Improvement of oral and written skills; emphasis on composition. Prerequisite: ITAL 202.
- ITAL 352. Italian Composition and Conversation II** (3). Improvement of oral and written skills in the language; emphasis on conversation. Prerequisite: ITAL 202.
- ITAL 361. Introduction to Italian Literature I** (3). Chronological evaluation of outstanding works in Italian literature from Middle Ages through 17th century; various movements and genres. Prerequisite: ITAL 202.
- ITAL 362. Introduction to Italian Literature II** (3). ITAL 361 continued; masterpieces from 18th century to present; various movements and genres. Prerequisite: ITAL 202.
- ITAL 371. Italian Civilization I** (3). Political, social, intellectual, artistic life from Middle Ages through 19th century. Background for literary studies and preparation for teaching of Italian. Prerequisite: ITAL 202.
- ITAL 372. Italian Civilization II** (3). ITAL 371 continued; political, social, intellectual, artistic life of modern Italy. Prerequisite: ITAL 202.
- ITAL 489. Italian Literature: Advanced Studies** (3). Study of author, literary school, genre, or selected theme. May be repeated to nine hours if topics are clearly different. Prerequisites: ITAL 361 and ITAL 362.

Japanese (JAPN)

- JAPN 101. Elementary Japanese** (4) I. Introduction to modern spoken Japanese. Four class periods and scheduled oral practice.
- JAPN 102. Elementary Japanese** (4) II. JAPN 101 continued. Development of reading and writing skills. Prerequisite: JAPN 101.
- JAPN 103. Elementary Japanese** (4) III. JAPN 102 continued. Attention to all basic skills. Prerequisite: JAPN 102.
- JAPN 201. Intermediate Japanese** (4) I. JAPN 101-102-103 continued. Conversation, writing, reading, grammar. Prerequisite: JAPN 103 or equivalent.
- JAPN 202. Intermediate Japanese** (4) II. JAPN 201 continued. Prerequisite: JAPN 201 or equivalent.

Journalism (JOUR)

- ◆ **JOUR 103. Introduction to Mass Communication** (4) I, II, III, IV. Survey of modern journalism; newer mass communication media; role and influence of press, radio, television, and related fields of advertising and public relations.
- JOUR 105. Mass Communication Theory and Principles** (4) I, II, III. Effective presentation of communication messages, especially in print. Computer news transmission, makeup and design of newspapers and magazines, type and related subjects.
- JOUR 203. History of Journalism** (4) III, IV. English background, development of mass media in America from 1690 to present. Factors affecting reporting and presentation of news in print and electronic journalism.
- JOUR 300. Introduction to Journalistic Writing** (4) I, II, III, IV. Practice in basic techniques of newswriting, including attribution, interviewing, leads, style, speech stories and obituaries. Prerequisites: "C" or better in JOURN 103 or 105; must pass Journalism English language proficiency test; "C" or better in ENG 112.
- JOUR 302. Copy Editing** (4) I, II, III. Theory and practice in editing local and wire news; headline writing, picture editing, evaluating news, layout and design. Prerequisite: "C" or better in JOUR 311.
- JOUR 303. Editing Specialized Publications** (4) I, II, III. Theory and practice of editing functions and techniques in producing specialized publications: magazines, newspapers, newsletters and brochures for business/industry and other organizations. Prerequisites: "C" or better in JOUR 300 plus 2.6 GPA in JOUR 103, 105, and 300.
- JOUR 304. Feature Writing** (4) II. Discovering, researching, and writing various types of features, such as seasonal articles, personality profiles, news sidebars and travel stories for newspapers, magazines and other publications. Prerequisites: "C" or better in JOUR 300 plus 2.6 GPA in JOUR 103, 105, and 300.
- JOUR 305. Photojournalism Editing** (4) II. Assignment, selection, preparation and display of photographs for publication, especially in newspapers, magazines and newsletters. Prerequisite: JOUR 300 or consent of instructor.

*Credit toward graduation is not allowed for ITAL 101, ITAL 102, ITAL 103, ITAL 201, or ITAL 202 when equivalent credit has been accepted from high school as part of admission credits except that student is allowed to duplicate one unit of high school study with university credit and that student with two years of high school study is allowed to take ITAL 102 and ITAL 103 for credit.

JOUR 306. Introduction to Photojournalism (4) I, II, III. Function of pictures in newspapers, magazines and television. Practice in picture taking and darkroom procedures. Two lectures and one two-hour laboratory. Student must provide own camera.

JOUR 307. Photographic Communication (4) I, II. Practice in advanced problems of photojournalism and evaluation of photographs for reproduction and communication. Two class meetings and one two-hour laboratory. Student furnishes camera and some materials. Prerequisite: "C" or better in JOUR 306.

JOUR 311. Reporting (4) I; II, III. Newsgathering and news writing for all types of news stories ranging from the simple factual story to the complex, specialized story. Practice in covering assignments for publication. Prerequisites: "C" or better in JOUR 300, plus 2.6 GPA in JOUR 103, 105, and 300.

JOUR 312. Reporting of Public Affairs (4) I, II, III. Field practice in covering governmental and community affairs with attention both to general and specialized areas. Prerequisite: "C" or better in JOUR 311 or 330.

JOUR 315. Press Management (4) II, III. Business problems of publishing—organization, financing, circulation, promotion. Mechanics of publication; various types of reproduction, adaptability of each, comparative costs, related problems.

JOUR 320. Newspaper Advertising (4). Newspaper advertising theory and practice; advertising production for the daily or weekly newspaper.

JOUR 330. Radio-Television News (4) I, II, III. Techniques of covering, writing, and editing news for radio and television broadcasting. Rewriting AP wire stories and use of still and motion cameras and ENG equipment in preparing television newscasts. Student must provide own tape recorder and tapes. Prerequisite: "C" or better in JOUR 300 plus a 2.6 GPA in JOUR 103, 105 and 300. Recommended: a broadcast production course (RTVF 262 or 263) and one photography course (JOUR 306 or RTVF 264 or RTVF 464).

JOUR 331. Advanced Radio/Television News (4) II, III. Study and practice in writing, editing and producing radio and television newscasts and news and public affairs features and documentaries. Major news and feature production required. Student must provide own tape recorder and tapes. Prerequisite: "C" or better in JOUR 330 and RTVF 262 and RTVF 263 and one photography course (JOUR 306 or RTVF 264 or RTVF 464).

JOUR 340. Principles of Public Relations (4) I, II. Public relations problems, policies, practices applied to corporate and noncorporate organizations; media methods of communicating, survey research and attitude change.

JOUR 380. Writing for Public Communications (4) I, II, III. Professional writing for business and industry. Customary public relations forms: news releases, features, speeches, letters, reports, and internal/external publications. Prerequisites: "C" or better in JOUR 300 plus 2.6 GPA in JOUR 103, 105, and 300.

JOUR 402. Journalism Law and Ethics (4) I, II. Legal concept of freedom of press, constitutional guarantees, libel, privacy, copyright, broadcast regulation, contempt, obscenity, ethical problems, right to know. Prerequisite: junior or senior status or consent of instructor.

JOUR 403. The Editorial (4) III. Techniques of editorial writing and role of editorial opinion in modern mass media. Prerequisite: JOUR 311 or consent of instructor.

JOUR 404. Magazine Article Writing (4) II, III. Searching for story ideas, analyzing magazine markets, researching subject matter, writing and polishing stories. Prerequisite: "C" or better in JOUR 304.

JOUR 407. Color Photography (4) III. Theory and application of color processes and their limitations and advantages. Production of color transparencies and prints. Student provides supplies. Prerequisite: JOUR 307.

JOUR 412. Field Experience (1-5) I, II, III, IV. Journalism internship program required of all journalism majors. Activity may be in more than one medium, full or part time, paid or voluntary. May be repeated up to total of 5 hours. Two hours required of all majors. Open to journalism majors only. Prerequisites: 2.5 JOUR accum. and 2.25 GPA. Graded S/U.

JOUR 414. Supervision of High School Publications (4) II. For teacher or prospective teacher of high school journalism or adviser of school newspaper or yearbook. Problems of editorial supervision, business management, production.

JOUR 416. Magazine Journalism (4) II, III. Practices, problems and trends in modern magazine publishing; analysis of editorial objectives, content, audience, format, production and management. Prerequisite: "C" or better in JOUR 303 and JOUR 304.

JOUR 423. Introduction to Mass Communication Research (4). Mass communication from scientific standpoint. Research technique in advertising, public relations, newspaper, radio and television. Application of behavioral science research methods to communication research. Prerequisite: senior standing or permission of instructor.

JOUR 430. The Documentary (4) I, III. Research, writing and preparation of news, informational and public service features, documentaries and magazine programs. Individuals and teams prepare materials for broadcast after introductory study of documentary techniques. Prerequisite: "C" in JOUR 331, RTVF 262, RTVF 263 and a course in photography.

JOUR 431. Interpretive Reporting (4). Research and writing of depth reports, interpretive news, profiles, background stories, news analyses. Investigative reporting of current events and issues. Prerequisite: journalism major, senior standing.

JOUR 432. Seminar in Newsroom Decision Making (4). Newspaper editorship: goal setting, problem analysis, readership analysis, publication conception and creation, staff management. Prerequisite: "C" in JOUR 302.

JOUR 433. Government and the Press (4). Origins and concept of freedom of information and evolution in constitutional law and judicial decisions; contemporary problems of censorship in publishing, broadcasting, film.

JOUR 435. Press and Society (4) II. Press as institution; its role, content, effects and responsibilities as a cultural force in society.

JOUR 440. Public Relations Techniques (4) I, II, III. Application of public relations theories, tools and techniques to the public relations campaign. Research, planning, and execution are practiced. Prerequisites: Senior status with "C" or better in JOUR 303, JOUR 340 and JOUR 380.

JOUR 461. Special Problems in Journalism (1-4) I, II, III, IV. Research problems, practical projects, or intensive reading to meet needs of student's special interest. Open to juniors and seniors with approval of director. May be repeated up to 8 hours.

JOUR 470. Foreign Press Systems (4) II. Social, economic and political factors, organization and controls in the national news and informational systems of countries around the world. Prerequisite: senior standing or approval of instructor.

JOUR 471. International Media Networks (4) III. Factors affecting flow of world news and public information; regional and international networks. Prerequisite: senior standing or approval of instructor.

JOUR 481. Topics and Problems in Public Relations (2-4) III. Issues and problems which confront public relations practitioner in corporate and noncorporate communications programs. May be repeated to maximum of eight hours.

JOUR 491. Senior Seminar: News-Editorial (2) I, II. Guided readings, discussions and research in journalism literature, philosophy, and current issues touching on newspaper journalism. Required of all news-editorial majors. Prerequisite: senior status.

JOUR 492. Senior Seminar: Magazine (2) III. Guided readings, discussions and research in journalism literature, philosophy, and current issues pertinent to magazine journalism. Required of all magazine majors. Prerequisite: senior status.

JOUR 493. Senior Seminar: Broadcast (2) II, III. Research, study and discussion of current issues, problems and trends in broadcast journalism. Required of all broadcast journalism majors. Prerequisite: senior status.

JOUR 494. Senior Seminar: Photojournalism (2) II. Guided readings, discussions and research in journalism literature, theory and current issues related to the field of photojournalism. Required of all photojournalism majors. Prerequisite: senior status.

JOUR 495. Senior Seminar: Public Relations (2) I, II, III. Guided readings, discussion and research related to current issues, theory and practical work of public relations personnel. Required of all public relations majors. Prerequisite: senior status.

Latin (LAT)

***LAT 101. Elementary Latin I** (4) I. Beginning study with attention to grammar, reading, and translation of simple texts. Four class periods and scheduled oral practice each week.

***LAT 102. Elementary Latin II** (4) II. LAT 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: LAT 101.

*Credit toward graduation is not allowed for LAT 101, LAT 102, LAT 103, LAT 201, or LAT 202 when equivalent credit has been accepted from high school as part of admission credits except that student is allowed to duplicate one unit of high school study with university credit and that student with two years of high school study is allowed to take LAT 102 and LAT 103 for credit.

LAT 103. Elementary Latin III (4) III. LAT 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: LAT 102 or one and one-half years of Latin in high school, or placement.

LAT 141. Great Greek Minds (4) I. Masterpieces of Greek literature: Homer, Sappho, Pindar, Aeschylus, Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, Plato, Aristotle. No Greek required. No credit for both LAT 141 and 485.

LAT 142. Great Roman Minds (4) II. Masterpieces of Latin literature: Lucretius, Cicero, Catullus, Vergil, Horace, Livy, Ovid, Petronius, Tacitus, Juvenal, Martial. No Latin required. No credit for both LAT 142 and 486.

LAT 145. Greek and Latin Elements in English (4) III, IV. Terms and concepts derived from Greek and Latin occurring in English; designed for premedical, pre dental, prelaw, language, science majors.

LAT 201. Intermediate Latin I (4) I. Review of grammar; emphasis on syntax and readings and various authors. Four class periods and scheduled oral practice each week. Prerequisite: LAT 103 or two years of Latin in high school.

LAT 202. Intermediate Latin II (4) II. LAT 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: LAT 201 or three years of Latin in high school.

LAT 351. Latin Prose Composition (5). Latin syntax, emphasis on word order and sentence structure. Prerequisite: LAT 202.

LAT 405. Latin Comedy (3). Origins and development of Latin comedy. Reading and evaluation of selected texts including one complete play of either Terence or Plautus. Prerequisite: LAT 351.

LAT 414. Advanced Latin Grammar (3). Developing increased ability to understand structural peculiarities of classical Latin. Prerequisite: LAT 351.

LAT 465. Virgil: Aeneid (3). Content of Aeneid; metrical reading and interpretation of one book and selections from others. Prerequisite: LAT 351.

LAT 471. Cicero's Essays (3). Two representative works. Prerequisite: LAT 351.

LAT 472. Cicero's Letters (3). Reading and translation of selected letters. Prerequisite: LAT 351.

LAT 475. Horace. Metrical reading, translation, evaluation of representative works. Prerequisite: LAT 351.

LAT 476. Livy (3). Reading, translation, evaluation of significant parts of *Historiae*. Prerequisite: LAT 351.

LAT 480. Classical Mythology (3). Study in English of Greek and Roman myths; historical meaning and influence on life, literature, and art. No Latin required.

LAT 481. Roman Life (3) III, IV. Study in English of daily life and customs in Rome as described in literature and attested by history, art, archeology. No Latin required.

LAT 485. Greek Literature in English (4) I. Thought and action of ancient Greeks as seen mainly through their literary works. For majors and minors in Latin and other languages and students wanting to fulfill humanities requirement; no Greek required. No credit for both LAT 141 and 485.

LAT 486. Latin Literature in English (4) I. Thought and action of ancient Romans as seen mainly through their literary works. Intended for majors or minors in Latin and other languages and for students wanting to fulfill humanities requirement; no Latin required. No credit for both LAT 142 and 486.

LAT 489. Latin Literature: Advanced Studies (3). Intensive study of author, genre, or selected theme. May be repeated to nine hours if topics are clearly different. Prerequisite: LAT 351.

LAT 491. Readings in Latin Literature (1-4) I, II, III, IV. Advanced reading for students wishing to study special period or great author. Prerequisite: consent of chair or department and instructor.

Latin-American Studies (LAS)

LAS 401. Latin-American Studies Senior Seminar (4) II. For senior majoring in Latin-American studies and other interested students. Examination of literature, problems of research and writing, discussion of methods. Required of Latin-American studies major.

Legal Studies (LEGS)

LEGS 200. Perspectives of American Law (4) I, II, III. Thematic case study of family law, property, privacy, torts, criminal law, and other areas which explain social forces that give substance to American law, analysis and reasoning behind court decisions. Prerequisite: 30 hours.

◆ **LEGS 301. General Business Law** (4) I, II, III, IV. Historical, political, economic background to business law. Origin, development, fundamentals of contracts and sales. Economic role of contracts in facilitating goods and services. Prerequisite: junior standing.

LEGS 302. General Business Law (4) II, III, IV. LEGS 301 continued. Law of sales, common carrier, partnerships and corporations, and agency law. Prerequisite: LEGS 301.

LEGS 305. Comparative Legal Philosophy (4) I. Legal philosophy and comparative law using legal systems of Western, Communist, and developing countries as models; treatment of commercial obligations and constitutional rights within different legal systems.

LEGS 306. International Legal Protection of Human Rights (4) II. Role of international law in promotion of protection of human rights. Body of procedural and substantive law defining international rights and freedoms generally acceptable to member states of international community. Prerequisite: LEGS 305 or permission of instructor.

LEGS 310. Law and Citizen (4) I. Major social issues of today and how judicial system shapes social policy and reform; consumer protection and other annually selected social issues being adjudicated in courts: discrimination and reverse discrimination, capital punishment, reform of legal system, problems in criminal justice system, freedom of speech and assembly, obscenity and pornography, etc. Prerequisite: junior standing or permission of instructor.

LEGS 340. Administration of Criminal Justice (4) III. Legal and sociological perspectives in which police, criminal courts, juries, judges, and correction systems operate. When possible, qualified criminologists assist in teaching.

LEGS 406. International Legal Transactions (4) III. Legal problems faced by individual and corporate business persons when operating within international framework. Methods of control of multinational corporate entities, effect of doing business as national or foreign firm, and act of state doctrine relating to expropriation of assets of foreign firm.

LEGS 413. Trusts and Estates (4) I. Execution, administration, revocation of wills and trusts; guardianships; life insurance estates; insurance law relating to estates, their protection, and liability; role of wills and trusts in distribution of wealth. Prerequisite: LEGS 301.

LEGS 414. Liability Law (4) II. History and development of modern concepts in areas of personality, privacy, product and service liabilities; legal problems in advertising, responsibility to work force; and ecology.

LEGS 415. Realty Law (4) III. Creation, acquisition, transfer of realty; deeds and mortgages as security devices and their economic implications; landlord-tenant relations and economic role of leasehold interests.

LEGS 417. Law of Business Associations (4) III. Establishing relation of agency, partnership, and corporation and legal incident thereof; fundamentals of Uniform Partnership Act, Model Corporation Act; economic implications as business entities. Prerequisite: LEGS 301.

LEGS 419. Private Labor Law (4) II. Federal legislation in defining roles of labor organizations and management as they interrelate in private industry; National Labor Relations Act, as amended, and 1964 Civil Rights Act, as amended, prohibiting discrimination in employment.

LEGS 420. Commercial Law (4) III, IV. Legal environment created by Uniform Commercial Code in transactions involving personal property sales, marketing, advertising, and negotiable instruments; their economic role in facilitating goods and services. Prerequisite: LEGS 301.

LEGS 421. Administrative Law (4) III. Regulation of business and policy implications for public; antitrust, trade practices, equal opportunity employment, environmental restraints, public utilities.

LEGS 425. Health Care Law (4) I. Public-private constraints in foundation health agencies; experimentation and risk assumption; agency and independent contract liability; reasonable standards of care doctrines; governmental regulations.

LEGS 431. Environmental Law (4) II. History and development of modern concepts in environmental law; air, water, land, noise; problems in legal alternatives and tax incentives.

LEGS 450. Public Law (4) III. Legal problems encountered by administrator of federal, state, or municipal institutions (public universities, schools, hospitals, welfare and administrative agencies, etc.): developing public labor law (right of public employees to organize and strike); limitations of suing public institution (sovereign and official immunity); constitutional, due process limitations and contractual limitations on public administrator's decisions.

*Credit toward graduation is not allowed for LAT 101, LAT 102, LAT 103, LAT 201, or LAT 202 when equivalent credit has been accepted from high school as part of admission credits except that student is allowed to duplicate one unit of high school study with university credit and that student with two years of high school study is allowed to take LAT 102 and LAT 103 for credit.

LEGS 491. Studies in Business Law (1-4) II. In-depth study of selected areas. Offered to individual student on lecture basis or as seminar depending on student needs and nature of material. May be repeated to eight hours.

LEGS 495. Readings for Honors in Business Law (1-4) I, II, III. For student in business administration who wishes to pursue supervised independent program of reading and study. Prerequisite: 3.0 accumulative GPA, consent of department.

Library and Educational Media (L&EM)

L&EM 203. Introduction to Librarianship (4). Profession of librarian/information/media specialist; types of library/media centers, jobs performed, professional literature and organizations, history of libraries and materials.

L&EM 301. Basic Educational Media (2) I, II, III, IV. Selection and operation of common classroom educational media. Prerequisite: EDFI 302. C/F hrs.: 10.

L&EM 395. Workshop in Educational Media (1-4). On demand. Study, readings, and development of materials to meet needs of practitioners. Topics vary from quarter to quarter. May be repeated with consent of adviser.

L&EM 403. Reference Services and Materials (4). Basic sources of information and use in providing library/information/media services.

L&EM 404. History of Books and Libraries (4). Development of books and libraries from earliest times to present; roles as agents of communication.

L&EM 405. Government Publications (4). Nature, use, acquisition, and organization of printed materials issued by federal, state and local governments and international agencies. Prerequisite: L&EM 403 or consent of instructor.

L&EM 407. Selection of Materials (5). Principles of selection and acquisition of print and nonprint materials. C/F hrs.: 15.

L&EM 408. Classification and Cataloging (5). Tools and basic procedures of technical processing and organizing of library/media/information materials.

L&EM 411. Materials for Secondary School Media Centers (4) I, III. Print and nonprint materials and program ideas for secondary school media centers. Special needs of adolescents including gifted and retarded. C/F hrs.: 15.

L&EM 428. Utilization of Educational Media (4). Audio-visual materials in improving instruction; selection, production, use, and evaluation. C/F hrs.: 16.

L&EM 430. Preparation of Instructional Materials (4). Planning, designing, and producing audiovisual materials in terms of stated objectives. C/F hrs.: 22.

L&EM 431. Visual Communication in Instruction (4). On demand. Role of visual stimuli in teaching/learning environments; instructional drawing. Prerequisite: L&EM 428 or consent of instructor.

L&EM 433. Classroom Television (4) I, IV. Use of television as integral part of teacher-directed classroom activities. Prerequisite: L&EM 428 or consent of instructor.

L&EM 434. Individualizing Instruction with Educational Media (4). Application of materials, techniques, and equipment to functional programming of individualized instruction. Prerequisite: L&EM 428 or consent of instructor.

L&EM 435. Programmed Instruction (4). Programmed instruction and teaching machines; preparation, evaluation, and revision of programmed sequences. Prerequisite: L&EM 428.

L&EM 438. Selection, Maintenance, and Repair of Media Equipment (4) I, II, III, IV. Role of teacher and media specialist in selection, maintenance, and repair of classroom media equipment at building level. Prerequisite: L&EM 428 or consent of instructor.

L&EM 441. Storytelling (4). Technique and practice of storytelling in libraries, classrooms, etc. Selection of traditional and modern literature to tell and read aloud. Prerequisite: ENG 342 or consent of instructor.

L&EM 450. Media Center in School (4). Organization and administration of school media center. Prerequisite: 15 hours of L&EM. C/F hrs.: 25.

L&EM 455. Instructional Media in Industry, Business, and Government (4). Design, production, use, and evaluation of instructional media in nonschool settings.

L&EM 490. Problems in Library and Educational Media (1-4). Independent study of selected topics. May be repeated to eight hours. Prerequisite: consent of instructor.

L&EM 491. Field Work (4). Supervised field work in library or media center approved by department. Prerequisite: consent of instructor.

Linguistics (LING)

LING 310. Introduction to Linguistics (4) II, III. Nature of languages and human communication; principles and procedures for analyzing and describing languages; language change and variation. Prerequisite: sophomore standing.

LING 490. Special Problems in Linguistics (2-4) I, II, III. Theories and applications of linguistics studies or problems in languages, literatures, psychology, speech, and other related fields. Prerequisite: LING 310.

Management (MGMT)

◆ **MGMT 300. Introduction to Production and Operations Management** (4) I, II, III. Operations of firm; fundamentals of operations research; design of production systems; operation, coordination, and control of production activity; major analytical tools for management; plant projects. Prerequisite: STAT 212 or equivalent.

◆ **MGMT 305. Principles of Organization and Management** (4) I, II, III. Fundamentals of organization theory; objectives, policies, decision-making, authority, management development, leadership, communication, motivation, and effective human relations as related to management principles: Not open to business majors.

MGMT 330. Procurement (4) I, II, III. Management of procurement; process of establishing need, source selection, pricing, specifications, negotiation and bidding, quality assurance, value analysis, make or buy, procedures, legal considerations, and computer systems. Related to industrial, governmental, and institutional utilization. Prerequisite: MGMT 300.

MGMT 331. Managing Technological and Environmental Change (4) II. Administrative and decision-making approaches to managing internal and external human and technical systems; pluralistic forces interfacing with organization, modes of accommodation available to managers, and motivational approaches associated with environmental change, innovation, and involvement.

MGMT 360. Organizational Theory and Behavior (4) I, II, III. Micro-relationships in organizations: historical perspective, changing nature of organizations, and individual and overall group behavior.

MGMT 361. Personnel Administration (4) I, II, III. Design, organization, and operation of personnel function. Planning manpower needs, developing human resources, appraising performance, developing compensation systems, and compliance with applicable government regulations such as EEO, OSHA, and ERISA. Not open to human resource management majors or to students with credit for MGMT 450 or MGMT 451. Prerequisite: MGMT 305 or MGMT 360.

MGMT 365. Advanced Theory and Behavior I (4) I, II, III. Group and organizational variables which influence organizational behavior; group development and behavior, organizational design, and organizational processes. Prerequisite: MGMT 360.

MGMT 409. Internship (1-4) I, III. Experience in approved business position. Student participates in seminar to formally evaluate work experience. Must be arranged in advance and approved by coordinator. Work experience must be completed within one year of acceptance into program. Not open to students with credit from any similar program in College of Business Administration. Graded S/U.

MGMT 430. Materials Management (4) I, II. Conceptual and analytical framework of material management problems. Development and evaluation in depth of materials management system components: facility location, transportation, inventory requirements, materials handling, order processing. Prerequisite: MGMT 330 or permission of instructor.

MGMT 439. Procurement and Materials Management Problems (4) III. Capstone course integrating principles from other required courses: lectures, case discussions, simulations, and research projects. Prerequisite: MGMT 430 or permission of instructor.

MGMT 441. Process Planning (4) I, III. Effective design of production transformation process. Forecasting methods for output requirements. Macroprocessing modes and attendant problem areas such as layout of production facilities and line balancing; microprocessing aspects such as work design and measurement, and process selection. Prerequisite: MGMT 300.

MGMT 442. Inventory Systems Planning (4) I, II. Traditional theories and techniques of inventory control. Current inventory methodology such as material requirements planning; broad range of inventory control problems. Prerequisite: MGMT 300.

MGMT 445. Production Planning and Scheduling (4) I, II. Short range productions scheduling such as job shop scheduling; intermediate range scheduling such as aggregate planning and scheduling; long term scheduling such as capacity and replacement analysis. Prerequisite: MGMT 300.

MGMT 447. Production Services and Quality Control (4) II. Production support services; quality systems and control, product reliability, systems maintenance, safety management. Prerequisite: MGMT 300 or equivalent.

MGMT 449. Problems in Production and Operations Management (4) III. Integrates all principles, theories, and techniques gained from previous courses into broad perspective. Case study, simulation, and individual projects. Prerequisites: MGMT 441 and MGMT 445, or permission of instructor.

MGMT 450. Human Resource Management I (4) I. Concepts and skills involved in staffing, appraisal, placement, training, development, and compliance with applicable governmental regulations including EEO. Prerequisites: MGMT 360 and MGMT 300.

MGMT 451. Human Resource Management II (4) II. Concepts and skills required in job evaluation, wage and salary administration, health and safety, and compliance with applicable governmental regulations, including OSHA and ERISA. Prerequisites: MGMT 360 and MGMT 300.

MGMT 460. Management Organization Systems: Analysis and Design (4). On demand. Application of systems concepts, methods, and strategies in designing total planned management organization system; how one designs, maintains, and controls total organization system whether profit/nonprofit or government/private. Prerequisite: MGMT 365.

MGMT 461. Advanced Organization Theory and Behavior II. (4) I, III. Individual and interpersonal variables which influence organizational behavior; motivation theory, personality theory, interpersonal processes, and helping relationship. Prerequisite: MGMT 360.

MGMT 465. Organization Development Theory. (4) I, II. Theory of organization development; history, philosophy, process, and technology of organization development; consulting process and diagnostic methodology. Prerequisite: MGMT 365 and MGMT 461.

MGMT 466. Organization Development Technology: Theory and Practice (4) II, III. Major organization development techniques for changing organizations: laboratory training, process consultation, conflict management, team building, intergroup building, organizational mirroring, survey-feedback, open system planning, organizational sensing, and organizational confrontation meetings. Prerequisite: MGMT 465.

MGMT 468. Organization Development Field Experience (4) III. Skills in use of evaluating organizations, designing interventions, and carrying out change in organizational systems. Prerequisite: MGMT 466.

MGMT 471. International Management (4) III. Organizational and operational aspects of international business management; problems of conducting business outside continental U.S. Prerequisite: MGMT 300.

MGMT 491. Studies in Management (1-4). On demand. Selected areas not covered by existing courses but which are developing rapidly as important parts of discipline. Offered to individual on lecture basis or in seminar, depending on student need and course content. May be repeated to eight hours.

MGMT 495. Readings for Honors in Management (1-3) I, II, III. For superior student who desires individual reading program to broaden knowledge of management literature on semi-independent basis. Prerequisite: academic standing in upper 20 percent of class.

Management Information Systems (MIS)

◆ **MIS 200. Introduction to Management Information Systems (4) I, II, III.** Data processing principles; logical analysis; computer programming; introduction to information systems theory; computer system environment in business. Language used is extended BASIC.

MIS 471. Computer-Based Information Systems (4) I. Analysis of information requirements, design and processing methods project, and data management. Prerequisites: OPRE 380 and senior standing and knowledge of computer programming, or consent of instructor.

MIS 473. Contemporary Topics in Management Information Systems (4) II. Topics shift as the business utilization of computers evolves. See instructor for current content. Prerequisite: MIS 471.

MIS 474. Cases in Computer-Based Information Systems (4) III. Information systems in action; case approach. Prerequisites: MIS 471 and MIS 473.

◆ **MIS 475. Role of Computer in Health Care (4) I, II, III.** Uses of computers in hospital information and cost systems; medical records, nutrient accounting, clinical and diagnostic handling. Prerequisite: introductory computer course or consent of instructor.

MIS 491. Studies in Computer-Based Information Systems (1-5). On demand. Selected areas or contemporary problems. May be offered individually as well as in classes, depending on student needs and nature of material.

Manufacturing Technology (MFG)

(See technology)

Marketing (MKT)

◆ **MKT 300. Marketing (4) I, II, III.** Marketing of goods and services from producer to consumer; management of marketing activities and institutions.

◆ **MKT 340. Personal Selling (4) I, II, III.** Economic and behavioral relationships among customer needs, buying motives, seller's performance affecting sales of industrial goods, consumer goods, intangibles; theory, principles, role playing in selling.

MKT 401. Problems in Market Management (4) I, II, III. Readings and case studies involving organization and management of marketing institutions and functions. Prerequisite: MKT 300.

MKT 402. Consumer Behavior (4) I, II. Consumer behavior effects on marketing policies, functions, institutions. Prerequisite: MKT 300.

MKT 403. Marketing Planning (4) I, II, III. Integrating, capstone course; student develops and presents marketing plan for real and unsolved problem. Prerequisites: MKT 300 and MKT 401 and MKT 420.

MKT 404. Marketing for Nonprofit Organizations (4) III. Application of major concepts and tools of marketing to operations of public and private nonprofit organizations; i.e. government agencies, educational institutions, health care organizations. Prerequisite: MKT 300.

MKT 409. Marketing Internship (1-4) I. Experience in approved business position; student participates in seminar to formally evaluate experience. Program must be arranged in advance and approved by coordinator. Work experience must be completed within one year from acceptance into program. Credit determined by quality and extent of work experience. Not open to student with credit for ACCT 409 or BA 409 or MGMT 409. Graded S/U.

MKT 410. Advertising (4) I, II, III. Social and economic aspects, merchandising, research, motivation, media, appropriation, and techniques. Prerequisite: MKT 300.

MKT 411. Advertising Creativity (4) II. Creative process applied to promotion. Theory and practice of creative aspects of advertising: copy, layout, and production. Prerequisite: MKT 410.

MKT 412. Advertising Problems (4) III. Case studies evaluating opportunities for effective use of advertising, building promotional programs, selection of advertising media, methods of determining effectiveness of advertising. Prerequisite: MKT 410.

MKT 420. Marketing Research (4) I, II, III. Marketing research as source of information relevant to solution of marketing problems. Technical aspects of research as related to manager's ability to judge soundness of research proposals and evaluate research findings. Prerequisite: MKT 300.

MKT 421. Advanced Marketing Research (4) III. Using principles of research to solve marketing problems. Survey and experimental research projects from formulation to presentation of findings; sample design, questionnaire construction, data collection, tabulation, analysis. Prerequisite: MKT 420.

MKT 430. Retailing (4) I, II, III. Evolution, organization, and operation of retailing. Prerequisite: MKT 300.

MKT 436. Retail Merchandising (4) II, III. Merchandising functions: buying, selling. Merchandise planning, budgeting, procuring, pricing; sales promotion, inventory evaluation, cost analysis, and control. Prerequisite: MKT 430.

MKT 441. Sales Management (4) I, II, III. Management of sales function of firm. Administration of sales force and its activities in manufacturing and wholesaling enterprises; sales organization, operation, planning, and analysis. Prerequisite: MKT 300.

MKT 491. Studies in Marketing (1-4) I, II, III. Selected areas not covered by existing courses but which are rapidly developing as important part of marketing. Offered to individual on lecture basis or in seminar, depending on student needs and course content. May be repeated to eight hours. Prerequisite: consent of department chair.

MKT 495. Reading for Honors in Marketing (1-4) I, II, III. For superior student who wishes individual reading program to broaden knowledge of marketing literature of particular areas on semi-independent basis. Prerequisite: academic standing in upper 20 percent of class.

Mathematics and Statistics (MATH)*

The Department of Mathematics and Statistics offers regular and advanced placement tests to help program advisers match student needs.

*See also applied statistics (STAT)

and abilities with available course work. The regular placement test should be taken when a student is admitted, and arrangements to take it can be made through the appropriate college. If advisable, the advanced placement test should be taken as soon as possible thereafter, and arrangements to take it can be made through the department office in 450 Mathematical Sciences Building.

The regular placement sequence is defined as follows: 1. Students with either one year of algebra in high school or satisfactory completion of MATH 090 should consider taking MATH 110. 2. Students with either two years of algebra and one year of geometry in high school or satisfactory completion of MATH 110 should consider taking MATH 130. 3. Students with either trigonometry in high school or satisfactory completion of MATH 130 should consider taking MATH 131. 4. Except for management information systems, operations research, or applied statistics, business students may consider taking MATH 124 and MATH 125 in place of MATH 131 and MATH 231. 5. Students wishing to study more advanced mathematics should take the MATH 131 sequence.

CAUTION: Unless otherwise specified, a grade of "A", "B", "C", or "S" is required to maintain satisfactory progress within the curriculum when one course is listed as a prerequisite for another course. Any other grade fails to meet the prerequisite. However, MATH 131 with a grade of "A", "B", "C", or "D" meets the prerequisite for MATH 125, and MATH 125 with a grade of "A" or "B" meets the prerequisite for MATH 231.

MATH 090. Elementary Algebra (5) I, II, III, IV. Real number system, rational number system, and algebraic operations; solutions of linear and quadratic equations; functions, relations, and graphs. Credit cannot be applied towards any baccalaureate degree program. Under ordinary circumstances, student with two years of high school algebra would not need this course. Additional fee: \$10. Graded S/U.

MATH 110. College Algebra (5) I, II, III, IV. Equations and inequalities, exponents and radicals, functions and graphs and polynomial, exponential and logarithm functions, complex numbers, and applications. Prerequisite: grade of "S" in MATH 090, or one year of high school algebra and a reported ACT math score of 14 or higher.

MATH 115. Introduction to Statistics (5) I, II, III. Description of data, binomial and normal distributions, estimation and testing of hypotheses for means and proportions. Prerequisite: three years of high school mathematics or satisfactory completion of MATH 110.

MATH 116. Introduction to Statistics II (4) III. MATH 115 continued. Nonparametric methods; linear regression and correlation; analysis of variance. Prerequisite: MATH 115 or consent of instructor.

MATH 121. Topics in Modern Mathematics (5) I, II, III. Language of sets, introductory logic, number systems, other topics. Not intended for improvement of algebra skills. Students needing additional preparation in algebra should take MATH 090 or MATH 110. Not open to student with credit for any college mathematics course. Prerequisite: one year of high school algebra.

MATH 124. Basic Calculus I (5) I, II, III, IV. Graphs, lines, functions, and differential calculus for functions of one variable, including applications. Not intended for students in physical sciences. Not open to students with grade of "C" or better in MATH 131. MATH 124-125 is concept-oriented calculus and matrix algebra sequence for students in social sciences, business, and other areas who are not eligible for MATH 131, but who need preparation for mathematically oriented courses in their fields. Prerequisite: two years of high school algebra and one year of geometry; or satisfactory completion of MATH 110; or consent of department chair.

MATH 125. Basic Calculus II (5) I, II, III, IV. Integral calculus, exponential and logarithm functions, partial derivatives, and matrix algebra. Prerequisite: "C" or higher in MATH 124, or "D" or higher in MATH 131.

MATH 129. Trigonometry (3) Trigonometric functions, graphs, identities, equations, inverse functions, solution of triangles, complex numbers, intended for students who have had good high school preparation in algebra and geometry but lack knowledge of trigonometry. Prerequisite: two years of high school algebra, one year of high school geometry, reported ACT math score of 24 or higher, and satisfactory completion of MATH 110.

MATH 130. Precalculus Mathematics (5) I, II, III, IV. Theory of equations, coordinate geometry, exponential, logarithmic, and trigonometric functions, applications. Overlaps with content of MATH 129. Prerequisite: satisfactory completion of MATH 110, or two years of high school algebra, one year of high school geometry, and a reported ACT math score of 19 or higher.

MATH 131. Calculus and Analytic Geometry I (5) I, II, III, IV. Differential calculus with applications; the integral MATH 131-231-232-233 sequence is traditional calculus for well prepared students and is prerequisite for all advanced mathematics and statistics courses. Prerequisite: satisfactory completion of MATH 130; or two years of high school algebra, one year of geometry, one half year trigonometry or MATH 129, ACT math score of 24 and appropriate score on departmental placement test.

MATH 222. Finite Mathematics (5). Logic; set theory; finite probability theory; vectors, matrices and applications in probability theory. Prerequisites: three years of high school mathematics or satisfactory completion of MATH 110.

MATH 226. Mathematics of Finance (4) III. Simple and compound interest, ordinary annuities, amortization, sinking funds, bonds, life annuities, life insurance. Prerequisite: MATH 125 or MATH 231 or consent of instructor.

MATH 231. Calculus and Analytic Geometry II (5) I, II, III. Continuation of MATH 131. Integral calculus, with applications. Derivatives and integrals of transcendental functions. Prerequisite: "C" or higher in MATH 131 or "B" or higher in MATH 125.

MATH 232. Calculus and Analytic Geometry III (5) I, II, III. Curves and vectors in two and three dimensions, solid analytic geometry, differentiation and integration of functions of several variables. Prerequisite: MATH 231.

MATH 233. Calculus and Analytic Geometry IV (4) I, II, III. Vector analysis, Taylor's theorem, L'Hospital's rule, improper integrals, infinite series. Topics from differential equations. Prerequisite: MATH 232.

MATH 241. Mathematics for Elementary Teachers I (5) I, II, III, IV. Numeration systems; set theoretic development of whole number system; relations; system of integers. Number theory. Open only to elementary education majors.

MATH 242. Mathematics for Elementary Teachers II (4) I, II, III, IV. Continuation of MATH 241. Rational and real number systems; informal geometry; basic probability. Open only to elementary education majors. Prerequisite: "C" or better in MATH 241.

MATH 243. Mathematics for Elementary Teachers (5) I, III. Equivalent to MATH 241 and MATH 242. Open only to elementary education majors. For well prepared, mathematically inclined students only. Prerequisite: three years of high school algebra and geometry. Not open to students who have taken or have credit in MATH 241 and/or MATH 242.

MATH 247. Fundamentals of Statistical Inference I (4). Discrete probability models, random variables and distribution functions; sampling theory; problems in statistical inference. Preparation for MATH 347. Prerequisite: MATH 125 or MATH 131.

MATH 291. Topics in Mathematics (1-4). On demand. Designed to enrich and broaden student's view of mathematics by discussion topics not included in existing courses. Prerequisite: consent of instructor.

MATH 295. Honors Course in Mathematics (1). Series of lectures by various department members surveying major areas of mathematics. To be taken upon completion of MATH 232. Prerequisite: invitation of department.

MATH 311. History of Mathematics (4) III. History through calculus. Prerequisite or corequisite: MATH 332.

MATH 313. Elementary Mathematical Logic (4). Propositional and predicate logic; nature of mathematical proof; applications to mathematics and computer science. Not open to students with credit for CS 313.

MATH 332. Elementary Linear Algebra (4) I, II, III. Systems of linear equations, vectors, matrices, determinants, linear transformations, vector spaces R^2 , R^3 . Applications. Techniques and some proofs. Prerequisite: MATH 232.

MATH 337. Differential Equations (4) I, III. Equations of first, second, and higher order; linear equations with constant coefficients; series solutions; Laplace transform; numerical methods; applications. Prerequisites: MATH 233 and MATH 332.

MATH 339. Fundamental Concepts of Modern Algebra (4). Introduction to modern algebra. Elementary properties of groups, rings, integral domains, and fields. Divisibility properties of integers, construction of rational numbers. Prerequisite: MATH 332 or consent of instructor.

MATH 347. Fundamentals of Statistical Inference II (4). Continuation of MATH 247. Estimation; tests of hypotheses; general inference for large and small samples; topics in nonparametric statistics. Prerequisite: MATH 247.

**For educational credit only.

***Upon invitation from faculty, student may undertake honors program in mathematics. Open to major whose performance in analytic geometry and calculus has indicated his or her interest in mathematics and probable success. Graduation with honors in mathematics requires completion of course of study planned by student and department honors committee, and approval by department. One such program would be outstanding performance in MATH 295 and MATH 395, and MATH 495. Participation is voluntary and may be discontinued.

MATH 350. Numerical Calculus (4). Basic numerical algorithms for computer use, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems. Not open to student with credit for CS 350. Prerequisites: CS 101 and MATH 233 and MATH 332.

****MATH 395. Honors Course in Mathematics (2).** Problem solving; or resources of mathematics library, techniques involved in conducting search for articles bearing on selected topic. Prerequisite: invitation of department chair.

MATH 401. Number Theory (4). Divisibility, prime numbers; congruences, prime modulus, congruences of degree two; quadratic residues, quadratic reciprocity law; numerical functions, factorization of integers; elementary diophantine equations, applications. Prerequisite: MATH 339.

MATH 402. Modern Geometry (4). Axiomatic development of neutral and Euclidean geometry. Introduction to non-Euclidean geometry. Prerequisite: MATH 339.

MATH 403. Modern Algebra I (4). Topics from groups, normal subgroups, homomorphisms, theorems of Lagrange and Cayley; rings, ideals, Euclidean domains, abstract vector spaces. Prerequisite: MATH 339.

MATH 404. Modern Algebra II (4). Continuation of topics from MATH 403. Prerequisite: MATH 403.

MATH 405. Projective Geometry (4). Algebraic techniques to study projective properties of geometric configurations and plane curves; principle of duality, projective transformations, cross ratios, intersection theory, and classical theorems. Prerequisite: MATH 339.

MATH 411. Elementary Topology (4). General properties of sets; topology of plane sets, closed sets, open sets in metric spaces; functions, continuous mapping, homeomorphisms, connectedness, and topological spaces. Prerequisite: MATH 233.

****MATH 414. Advanced Mathematics for Elementary Teachers I (4).** Basic mathematical systems; natural number system, induction, fields, groups; number theory; infinite sets; geometry. Prerequisite: "C" or better in MATH 242 or MATH 243.

****MATH 415. Advanced Mathematics for Elementary Teachers II (4).** Continuation of MATH 414. Prerequisite: consent of instructor.

MATH 421. Foundations of Mathematics I (4) I, III. Logic; set theory (including informal discussion of infinite sets and cardinals); axiomatic method (including models, consistency, and independence). Prerequisite: MATH 339 or consent of instructor.

MATH 422. Foundations of Mathematics II (4) III. Continuation of MATH 421; properties of first order logic. Prerequisite: MATH 421 or MATH 313 or consent of chair.

MATH 426. Mathematics of Life Contingencies (4). The mathematics of pensions and life annuities. Single life functions; measurement of mortality, net level premium reserves. Multi-life functions; joint life probabilities, last survivor and general multi-life functions. Prerequisite: MATH 226 or consent of instructor.

MATH 430. Advanced Calculus (4) I. Infinite sequences and series; uniform convergence; improper integrals; partial derivatives; Jacobians; change of variables; optimization. Prerequisite: MATH 233 or equivalent.

MATH 432. Linear Algebra with Applications (4) I, III. Matrices and vector spaces, eigenvalues, orthogonal matrices, positive definite matrices, quadratic forms. Possible applications: differential equations, Markov chains, least squares. Prerequisite: MATH 332 or consent of instructor.

MATH 434. Vector Calculus (4) II. Differential calculus of vector functions; inverse and implicit function theorems; line and surface integrals; theorems of Green, Gauss, and Stokes. Prerequisites: MATH 233 and MATH 332.

MATH 437. Qualitative Theory of Differential Equations (4). Existence theorems for linear and nonlinear equations, systems of first order linear equations, nonlinear equations and stability; applications. Prerequisite: MATH 337.

MATH 439. Boundary Value Problems of Differential Equations (4). Boundary value problems, Sturm-Liouville theory, singular boundary conditions. Fourier series, partial differential equations of mathematical physics, e.g., heat, wave, and Laplace's equation in one and several dimensions. Applications. Prerequisite: MATH 337.

MATH 441. Probability and Statistics I (4) I, III. Probability spaces, discrete and continuous random variables and their distributions, expected value, and Central Limit Theorem. Prerequisite or corequisite: MATH 233.

MATH 442. Probability and Statistics II (4) II. Continuation of MATH 441; sampling distributions, estimation of parameters, and tests of hypotheses. Prerequisite: MATH 441.

MATH 443. Probability and Statistics III (4) III. Maximum likelihood estimation, Neyman-Pearson lemma, most powerful tests, class data, regression analysis, nonparametric statistics. Prerequisites: MATH 442 and MATH 332.

MATH 445. Applied Probability (4) I. Probability models for applications: Finite Markov chains, queuing systems, Poisson process, applications to genetics, diffusion, computer systems. Prerequisites: MATH 332 and 441.

MATH 451. Numerical Analysis (4) I, IV. Development of numerical methods which are efficient, accurate, and suitable for high-speed digital computation; zeros of polynomial and transcendental functions; numerical differentiation and integration; solution of linear systems by direct and by iterative methods; matrix inversion. Selected algorithms programmed for solution on computer. Prerequisite: MATH 332 and programming experience. Not open to student with credit for CS 451.

MATH 452. Numerical Analysis (4) II. Computation of eigenvalues and eigenvectors of matrices; least squares approximation; numerical solution of initial value and boundary value problems in ordinary differential equations. Topics from: spline, trigonometric, and Chebyshev approximation; numerical solution of partial differential equations; and optimization techniques. Prerequisites: MATH 337 and programming experience. Not open to students with credit for CS 452.

MATH 461. Introduction to Complex Analysis (4). Complex numbers, complex valued functions, differentiation of complex valued functions, analytic functions, power series, integration, contour integrals, residues and poles, conformal mapping, applications. Prerequisite: MATH 334 or MATH 465 or consent of chair.

MATH 465. Introduction to Analysis I (4) I. Sets, functions, and properties of real numbers. Numerical sequences and series. Limit theory, uniform continuity for real functions. Differentiation and Riemann integration. Prerequisite: MATH 233.

MATH 466. Introduction to Analysis II (4). Riemann-Stieltjes integration, metric spaces, sequences and series of functions, convergence and uniform convergence, equicontinuity, power series, Stone-Weierstrass theorem. Prerequisite: MATH 465.

MATH 467. Introduction to Analysis III (4). Lebesgue measure and integration, functions of several variables, including derivatives and inverse and implicit function theorems. Prerequisite: MATH 466.

MATH 489. Internship (1-4). Internship for majors in mathematics or statistics who are in cooperative education program. Written report required. May be repeated with permission. Does not apply towards major or minor. Prerequisite: permission of department. Graded S/U.

MATH 490. Readings in Mathematics (1-4). Independent study of topic of particular interest to advanced student under direction of faculty member. May be repeated. Prerequisites: consent of instructor and chair of department.

MATH 491. Topics in Mathematics (4). On demand. Selected topics in mathematics not included in existing courses. May be taken twice for credit. Prerequisite: consent of instructor.

****MATH 495. Honors Course in Mathematics (1).** Directed study in some field of mathematics; preparation and presentation of research topic. To be taken concurrently with or more hours of MATH 490. Prerequisite: invitation of department chair.

Medical Record Administration (MRA)

These courses will not be offered in the 1981-82 academic year.

MRA 401. MEDICAL RECORD SCIENCE V (4) I. History and development of patient information systems; analysis of medical record development, content, format, quantitative and qualitative evaluation. Health care information retention, storage, retrieval systems; medical record administrator's role in health information systems. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

MRA 402. MEDICAL RECORD SCIENCE VI (4) II. Disease and operation classification systems; use of manual and computerized medical information indexing and registry systems. Statistical reporting in medical record department; computation, presentation and analysis of related statistics, definitions, sources, collection and reporting systems. Introduction to research methodology. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

**For educational credit only.

***Upon invitation from faculty, student may undertake program in mathematics. Open to major whose performance in analytic geometry and calculus has indicated or her interest in mathematics and probable success. Graduation with honors in mathematics requires completion of course of study planned by student and department honors committee, and approval by department. One such program would be outstanding performance in MATH 295 and MATH 395, and MATH 495. Participation is voluntary and may be discontinued.

MRA 403. MEDICAL RECORD SCIENCE VII (3) II. Legal aspects of medical records; analysis of medical record as legal document, medical and legal requirement of health care delivery system; confidentiality and release of medical information. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

MRA 404. MEDICAL RECORD SCIENCE VIII (4) III. Planning, organizing, staffing, actuating and controlling medical care information system using systems analysis techniques. Application of principles through management processes. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

MRA 410. SEMINAR — TRENDS IN MEDICAL RECORD ADMINISTRATION (2) III. Topics, trends, constraints affecting the profession; directed practice experience, articles, and case studies. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

MRA 489. MEDICAL RECORD DIRECTED PRACTICUM III (5) III. On-site management experience in health care facility medical record department under direction of medical record administrator; emphasis on management of health information systems and personnel. Prerequisites: enrollment in MRA program and senior standing, or permission of instructor.

Medical Record Technology (MRT)

MRT 100. Introduction to Medical Records Science (2). Historical development of medicine, its important people, hospitals, and accrediting agencies with respect to medical record keeping; medical profession and organization of medical staff within the health care institution; history of medical record profession and study of code of ethics of a medical record technologist as a professional. Two-hour lecture.

† **MRT 101. Medical Terminology** (5). Vocabulary and terms used by medical personnel; prefixes, suffixes, word roots, and their combining forms, usage, spelling, and pronunciation; specialized terms within body systems. Five hour lecture.

† **MRT 102. Medical Transcription** (4). Skill in use of transcription equipment and expansion of medical terminology and typing accuracy and speed. Practice in typing medical, operative, clinical, summary, laboratory, history, physical and admission reports. Some foreign dictation is used to gain practice in transcribing different dialects. Two hour lecture, six hours lab. Prerequisite: MRT 101 and typing proficiency as indicated with a grade of "C" or better in BU5E 112.

† **MRT 111. Medical Record Science I** (4). Basic functions of medical record department; alphabetical and numerical filing, practice in simulated serial, alphabetical, terminal digit and master index filing systems with hard copy and microfilmed patient records; retention of medical records, forms design and control; accrediting agencies' definitions of, standards for, and development of the medical record as to content, format, evaluation, and completion; analysis of record deficiencies. Four hour lecture and assigned lab. Prerequisite: MRT 100 and formal admission to MRT program.

† **MRT 112. Medical Record Science II** (4). Coding, classifying and indexing operations according to ICD-9-CM; registers and indexes these procedures generate and requirements for their maintenance. Abstraction of medical data from patient records. Four hours lecture and assigned labs. Prerequisite: MRT 111.

† **MRT 201. Medical Record Directed Practice** (3). Retrieving and filing medical records, coding diseases and operation; abstracting and retrieving medical data and analyzing chart deficiencies. Performing receptionist duties, master patient index filing, admission procedures and transcribing dictated medical reports in a supervised learning experience at an assigned medical record department under the instruction of a professional medical record practitioner. Twenty-four hours lab. No remuneration; see policy on transportation and uniforms. Repeated up to six credits. Prerequisite: BIOL 332 and MRT 102 and MRT 112.

† **MRT 204. Pathophysiology** (3). Disordered human functions and systems; language, causes and types of diseases. Three hours of lecture. Prerequisite: BIOL 104, 331, and 332.

† **MRT 205. Pathophysiology** (3). MRT 204 continued. Diseases of the body systems; each disease described in terms of its etiology pathology, symptoms, and treatment. Three hours of lecture. Prerequisites: BIOL 104, 331, and 332, and MRT 204.

† **MRT 211. Medical Record Science III** (4). Vital and public health statistics; in-depth study of hospital statistics; definitions, formulas and computations. Completion of medical care evaluation studies; outline of utilization review, PSRO and JCAH standards; hospital libraries, tumor registries and study of hospital admitting procedures. Four hours lecture and assigned lab. Prerequisite: MRT 112.

† **MRT 212. Medical Record Science IV** (3). The medical record as legal document; confidential communication; consents and authorizations for release of medical information. Principles and roles of supervisor, staff and management of medical record department. Ambulatory, extended care facility and problem-oriented medical records. Three hours lecture and assigned lab. Prerequisite: MRT 211.

† **MRT 290. Topics in Medical Record Technology** (1-4). Medical record technology projects, workshops, and seminars dealing with current topics not covered in existing courses.

† **MRT 291. Field Experience** (4). Ten weeks of paid field work in a medical record department under supervision of Registered Record Administrator or Accredited Record Technician. Prerequisite: permission of instructor.

Medical Technology (MEDT)

MEDT 301. Orientation to Profession of Medical Technology (2) II, III. Professional aspects of medical technology as part of health care team; ethics, responsibilities, and laboratory administration.

MEDT 401. Introduction to Research (1-4) I, II, III, IV. For students interested in pursuing research related to clinical laboratory science. Prerequisite: permission of instructor.

MEDT 452. Clinical Bacteriology I (4) I, II, III, IV. Isolation and identification of clinically significant pathogenic bacteria from clinical specimens. Theory and clinical lab application. Prerequisites: BIOL 426 or equivalent and permission of instructor.

MEDT 453. Clinical Bacteriology II (4) I, II, III, IV. Continuation of MEDT 452; emphasis on application. Prerequisites: BIOL 426, grade of "C" or better in MEDT 452, and permission of instructor.

MEDT 454. Clinical Mycology (2) I, II, III, IV. Theory and laboratory exercises related to identification, etiology, epidemiology, pathogenesis and immunology of medical mycosis. Prerequisites: BIOL 426 and permission of instructor.

MEDT 455. Clinical Parasitology (2) I, II, III, IV. Theory and laboratory procedures related to morphology and life cycles of parasites of man and methods of recovery and identification. Prerequisites: BIOL 405 and permission of instructor.

MEDT 456. Immunohematology I (4) I, II, III, IV. Human blood groups, compatibility testing and detection and identification of antibodies; management of transfusion service. Theory and clinical laboratory application. Prerequisites: BIOL 439 and permission of instructor.

MEDT 457. Immunohematology II (2) I, II, III, IV. Continuation of MEDT 456; emphasis on clinical application. Prerequisites: BIOL 439, grade of "C" or better in MEDT 456, and permission of instructor.

MEDT 458. Clinical Serology (2) I, II, III, IV. Theory and clinical laboratory experience related to formation and detection of antibodies in numerous disease states. Prerequisites: BIOL 439 and permission of instructor.

MEDT 459. Clinical Hematology I (4) I, II, III, IV. Theory of development of cellular elements of blood; recognition of normal and abnormal elements. Lectures on detection of blood dyscrasias, hematological procedures and clinical laboratory application. Prerequisites: BIOL 411 and permission of instructor.

MEDT 460. Clinical Hematology II (4) I, II, III, IV. Continuation of MEDT 459; emphasis on clinical application. Prerequisites: BIOL 411, grade of "C" or better in MEDT 459, and permission of instructor.

MEDT 461. Coagulation (2) I, II, III, IV. Theory of coagulation mechanism and relationship to disease states; identification of coagulation deficiencies and abnormalities. Prerequisites: BIOL 411 and permission of instructor.

MEDT 462. Clinical Chemistry I (6) I, II, III, IV. Theory and clinical laboratory experience involving analysis of chemical constituents of body fluids in normal and disease states. Prerequisites: CHEM 307 and CHEM 201 and PHYS 216 and permission of instructor. CHEM 321 and CHEM 352, and PHYS 215 recommended.

MEDT 463. Clinical Chemistry II (6) I, II, III, IV. Continuation of MEDT 462; emphasis on clinical application. Prerequisites: Grade of "C" or better in MEDT 462, and permission of instructor.

MEDT 464. Analysis of Body Fluids (2) I, II, III, IV. Physiology of urinary system and related diseases. Methods of detection of chemical and cellular elements of urine, cerebral spinal fluid, synovial fluid, and seminal fluid. Prerequisites: BIOL 411 or equivalent and permission of instructor.

MEDT 465. Laboratory Management and Personnel Practices I (2) I, II, III, IV. Theory and discussion of supervision and management of clinical laboratory and personnel. Prerequisite: Permission of instructor. Courses in PSYC and/or MGMT and CS or MIS recommended.

MEDT 466. Laboratory Management and Personnel Practices II (2) I, II, III, IV. Continuation of MEDT 465; problem solving and application. Prerequisite: permission of instructor.

MEDT 470. Special Topics (1-2). May be repeated to four hours. Examples of topics: nuclear medicine, histology procedures, cytology procedures, cytogenetics, virology procedures, toxicology, instrumentation education techniques, electrocardiogram technique. Prerequisite: permission of instructor.

Military Science (MILS)

MILS 101. Introduction to Army ROTC (2) I, II, III. History, organization, programs, benefits, objectives of Army ROTC; role of U.S. Army in national defense. No military obligation or prerequisites.

MILS 102. Practical Skills (2) I, II, III. Students may select any MILS 102 class based on personal preference. No military obligation. Freshmen only.

- A102 Rifle Marksmanship
- B102 Rappelling and Survival Operations
- C102 Physical Conditioning

MILS 103. Map Reading (2) III. Understanding and application of basic map reading skills; terrain evaluation, military grid reference systems, integrated use of map and compass. No military obligation or prerequisites.

MILS 201. Leadership/Management (2) I, II, III. Principles of leadership; psychological approach to leadership; application of leadership principles to commonplace problems. No military obligation or prerequisites.

MILS 202. Practical Skills (2) I, II, III. Students may select any MILS 202 class not previously taken based on personal preference. No military obligation. Sophomores only.

- A202 Rifle Marksmanship
- B202 Rappelling and Survival Operations
- C202 Physical Conditioning

MILS 203. Tactical Operations I (2) III. Small unit tactics; organization of basic military team; duties and responsibilities of military leaders with applied leadership and management problems associated with small unit leadership. No military obligation or prerequisites.

MILS 301. Methods of Military Instruction (3) I. Principles, methods and techniques fundamental to military instruction; role of branches of Army; history, development, mission, and organization. Progressive leadership development; duties and responsibilities of junior leaders. Prerequisite: completion of ROTC basic course of department permission.

MILS 302. Management Simulation Program (3) II. Principles, methods, techniques of decision making and management with practical experience and application. Role of branches of Army. Progressive leadership development; duties and responsibilities of junior leaders. Prerequisite: department permission.

MILS 303. Tactical Operations II (3) III. Review of principles of small unit tactics; development and understanding of platoon in tactical operations; role of branches of Army. Progressive leadership development; duties and responsibilities of junior leaders. Prerequisite: department permission.

MILS 401. Military Law (3) I. Basic concepts and fundamentals of Army Military Justice System; Army Equal Opportunity and Drug Abuse Programs; progressive training in leadership. Prerequisite: department permission.

MILS 402. Military History (3) I. Military history with student having option of two courses offered by Department of History: American Military History, or Topics of World War II. Progressive training in leadership, responsibilities of leader. Prerequisite: department permission.

MILS 403. Unit Administration (3) III. Concepts and fundamentals of Army administration; fundamentals of Army supply system and material readiness system; staff organization and staff officer responsibilities; orientation of service life for future officer; application of leadership principles through planning and execution of practical exercises with fourth-year students exercising control of cadet battalion. Prerequisite: MILS 402.

MILS 404. Studies in Military Science (1-4) On demand. Study in depth of selected areas. Offered to individual student on lecture basis, in seminar, or independent study depending on student's needs and nature of material. May be repeated to eight hours. Prerequisite: consent of instructor.

Music Composition and History (MUCH)

MUCH 100. Small Ensembles (1) I, II, III. Collegium Musicum of College of Musical Arts offered under supervision of composition/history department. For freshmen or sophomores. May be repeated. Following small ensembles offered on demand:

- MUCH 100a. Madrigal Singers
- MUCH 100b. Renaissance Ensemble
- MUCH 100c. Baroque Singers
- MUCH 100d. Baroque Ensemble
- MUCH 100e. Indonesian Gamelan
- MUCH 100f. New Music Ensemble

MUCH 101. Exploring Music (3) I, II, III. Focus on three types of contexts important to appreciating music: the composer, "Fascinating George" Gershwin; the place, "Gay Paree"; and the time, "Beatlemania." Open to non-music majors.

MUCH 110. Elements of Music I (4) I, IV. Musical literacy in scales, intervals and triads in two clefs, as demonstrated by singing, hearing, reading, and writing. Open to nonmajors, minors, and music majors with consent of instructor.

MUCH 111. Elements of Music II (3-4) I, II. MUCH 110 continued.

***MUCH 125. Introduction to Non-Western Music** (4) On demand. Musical systems of major non-Western art musics; Africa, Near East, Pacific, and Asia. Theoretical, analytical, and cultural concepts related to music. Prerequisite: MUCH 111.

***MUCH 130. Folk Music in America** (4) On demand. Folk and traditional music of various cultural groups. Theoretical, analytical, cultural, and performance concepts related to music. Prerequisite: MUCH 111.

***MUCH 131. Medieval Music** (4) On demand. Various styles of music during Medieval period. Theoretical, analytical, cultural, and performance concepts related to music literature. Prerequisite: MUCH 111.

***MUCH 132. Baroque Music** (4) II, III. Music in Baroque period. Theoretical, analytical, cultural, and performance concepts related to various styles of music literature. Prerequisite: MUCH 111.

MUCH 134. Introduction to Jazz and Commercial Music (4) III. Theoretical and historical evolution of American popular music; Broadway musical theater, rock'n roll, contemporary jazz, rock.

***MUCH 135. African Music** (4) III. Music of various cultural groups of sub-Saharan Africa. Theoretical, analytical, cultural, and performance concepts related to music. Prerequisite: MUCH 111.

MUCH 141. Aural Skills I (1) I, IV. Basic skills in singing pentatonic melodies and simple rhythms; memorization; penmanship; active participation. Open to non-majors, minors, and music majors.

MUCH 142. Aural Skills II (2) II, III. Basic, comprehensive course in ear training; rhythmic, melodic, harmonic dictation; sight-singing. Completion of MUCH 243 required of all music majors. Prerequisite: MUCH 111 or equivalent.

MUCH 143. Aural Skills III (2) I, III. MUCH 142 continued. Prerequisite: MUCH 142.

MUCH 211. Jazz Improvisation and Repertoire I (2) I. Techniques of jazz improvisation and related repertoire, application of basic scales, arpeggios, melodic construction to blues and standard pop tunes. Prerequisite: MUCH 234 or consent of instructor.

MUCH 212. Jazz Improvisation and Repertoire II (2) II. Advanced techniques of jazz improvisation and related repertoire, application of modes, altered scales, chord extensions, chromatic harmony to jazz compositions. Prerequisite: MUCH 211 or consent of instructor.

MUCH 221. Masterpieces of Music I (3) I. Music of most important composers of Baroque period; directed listening to selected works. Open only to nonmusic majors.

MUCH 231. Renaissance Music (4) I, II, III. Music in various forms and styles during Renaissance. Theoretical, analytical, cultural, and performance concepts related to music literature. Prerequisites: MUCH 143 with grade of "C" or better plus two of the following: MUCH 125, MUCH 111, MUCH 131, MUCH 132, MUCH 134, and/or MUCH 135.

MUCH 232. Classical Music (4) I, II, III. Music in Classical period. Theoretical, analytical, cultural, and performance concepts related to music literature in various styles of dictation. Prerequisites: same as those for MUCH 231, but must include MUCH 132.

MUCH 233. Avant-Garde Music (4) On demand. Various styles of music from mid-20th-century to present. Theoretical, analytical, cultural, and performance concepts related. Prerequisites: same as those for MUCH 231.

MUCH 235. Indonesian Music (4) II. Music of principal cultural groups of Indonesia. Theoretical, analytical, cultural, and performance concepts. Prerequisites: same as those for MUCH 231.

MUCH 241. Aural Skills IV (2) I, III. MUCH 143 continued. Prerequisite: MUCH 143. (Music majors must have grade of "C" or better in MUCH 143.)

MUCH 242. Aural Skills V (2) II, III. MUCH 241 continued. Prerequisite: MUCH 241.

MUCH 243. Aural Skills VI (2) I, III. MUCH 242 continued. Prerequisite: MUCH 242.

*For all music majors, completion of two of the following with passing grades plus completion of MUCH 143 with grade of "C" or better are prerequisite to enrollment in 200-level MUCH classes: MUCH 125, MUCH 130, MUCH 131, MUCH 132, MUCH 135.

MUCH 300. Small Ensembles (1) I, II, III. Collegium Musicum of College of Musical Arts offered under supervision of composition/history department. For juniors or seniors. May be repeated. Following types of small ensembles offered on demand:

MUCH 300a. Madrigal Singers
MUCH 300b. Renaissance Ensemble
MUCH 300c. Baroque Singers
MUCH 300d. Baroque Ensemble
MUCH 300e. Indonesian Gamelan
MUCH 300f. New Music Ensemble

MUCH 301. Choral Literature (3). On demand. Performance and analysis of styles from Renaissance to contemporary period.

MUCH 308. Keyboard Harmony I (2) On demand. Use of keyboard skills relating to score reading, transposition, extemporization, and accompanying.

MUCH 309. Keyboard Harmony II (2) On demand. Continuation of keyboard skills developed in MUCH 308; practical aspects of accompanying. Prerequisite: MUCH 308.

MUCH 310. Keyboard Harmony III (2) On demand. MUCH 309 continued. Prerequisite: MUCH 309.

MUCH 311. Jazz Arranging and Analysis I (3) I. Swing era repertoire: typical chord progressions, formal structure, melodic construction, compositional devices. Basic arranging techniques common to traditional big-band music. Prerequisites: MUCH 212 and 333 or consent of instructor.

MUCH 312. Jazz Arranging and Analysis II (3) II. Harmonic trends of bop period; substitute chords, altered chords, melodic and rhythmic treatment. Practically applied to expanded big-band format; using double reed, French horns, and strings, in addition to traditional brass and reed sections. Prerequisites: MUCH 311 and 333.

MUCH 313. Jazz Arranging and Analysis III (3) III. Contemporary trends in jazz and commercial music. Modal jazz, jazz-rock, funk and disco, advanced big-band writing; emphasis on small group jazz and rock styles. Prerequisites: MUCH 333, 334, and 312.

MUCH 315. Orchestration (3) I, III. Score analysis, arranging and writing for various families of orchestra-woodwinds, brass, percussion, strings; scoring for full symphony orchestra. Prerequisite: MUCH 332 with grade of "C" or better; or MUCH 132, MUCH 135, MUCH 232, and MUCH 332.

MUCH 316. Composition (3) I, II, III. Original composition in vocal and instrumental forms. May be repeated to 18 hours. Prerequisite: MUCH 332 with grade of "C" or better; or MUCH 132, MUCH 135, MUCH 232, and MUCH 332; or consent of instructor.

MUCH 318. Symphonic Literature (3). On demand. Listening to and analysis of works tracing development of symphony and symphonic poem to modern period.

MUCH 320. Band Arranging (3) I, II. Scoring for band instruments, from small ensembles to concert band and marching band. Prerequisite: MUCH 332 with grade of "C" or better; or MUCH 132, MUCH 135, MUCH 232, and MUCH 332.

MUCH 332. Romantic Music (4) I, II, III. Music in Romantic period. Theoretical, analytical, cultural, and performance concepts related to music literature in various styles. Prerequisites: MUCH 232 and MUCH 243.

MUCH 333. 20th-Century Music (4) II, III. Music of various styles, from reactions to Romanticism through present practices. Theoretical, analytical, cultural, and performance concepts. Prerequisites: MUCH 243 and MUCH 332.

MUCH 334. Jazz (4) I, II. Music of various styles of jazz from around 1900 to present. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 243.

MUCH 335. Japanese Music (4) I. Music of Japanese temple, court, theater, and concert. Theoretical, analytical, cultural, and performance concepts. Prerequisite: MUCH 243.

MUCH 341. Aural Skills VII (2) I. MUCH 243 continued. Prerequisite: MUCH 243. For honor students, music composition/theory, and students wishing to become tutors for aural skills I-VI.

MUCH 401. History and Literature of Jazz (3) I, IV. Jazz from African influences through present developments; personalities involved in stylistic change.

MUCH 403. Counterpoint I (2) I alternate years, 16th-century counterpoint. Prerequisites: MUCH 132, MUCH 135, MUCH 231, and MUCH 232.

MUCH 404. Counterpoint II (2) II alternate years. 18th-century counterpoint; tonal counterpoint in three and four voices; canon, invention, fugue, chorale-prelude. Prerequisites: MUCH 132, MUCH 135, MUCH 232, and MUCH 332.

MUCH 405. Counterpoint III (2) III alternate years. 20th-century counterpoint. Analysis and writing in nontonal 12-tone contrapuntal techniques. Prerequisites: MUCH 132, MUCH 232, MUCH 332, and MUCH 333.

MUCH 406. Problems in Music History (4) On demand. Research through topics and problems in music history. Prerequisite: consent of instructor. May be repeated to 12 hours.

MUCH 407. Performance Practice (3). On demand. Performance practice in music; improvisation, ornamentation, accompaniment, instrumentation, rhythm, and tempo. Prerequisites: MUCH 218 and MUCH 219 with grade of "C" or better; or MUCH 132, MUCH 135, MUCH 231, and MUCH 232.

MUCH 408. Chamber Music Literature (3). On demand. Selected major chamber music works of various periods. Reading on all forms and media. Prerequisite: MUCH 232 and MUCH 332 with grade of "C" or better; or MUCH 132, MUCH 231, MUCH 232, and MUCH 332.

MUCH 410. Contemporary Music Pro-Seminar (3) On demand. Musical styles and techniques of 20th century; compositional and analytical approach, considering various influences of past. May be repeated to 18 hours. Open automatically to composition majors, to others by consent of instructor. Prerequisite: MUCH 232 with grade of "C" or better.

MUCH 411. Jazz Pedagogy (3) III. Prepares student to teach fundamentals of jazz; improvisation, arranging, jazz ensemble techniques. Prerequisites: MUCH 333 and 334.

MUCH 412. Opera Literature (3). On demand. Styles, interpretation, traditional performances of various schools. Prerequisites: MUCH 232, and MUCH 332 with grade of "C" or better; or MUCH 132, MUCH 232, MUCH 332, plus one non-Western module.

MUCH 417. Music in America (3). On demand. Present art music traditions in U.S. and compositions of American composers, through individual research; historical survey from earliest settlements to present. Prerequisite: MUCH 101 or MUCH 102 or MUCH 103.

MUCH 420. Problems and Techniques of Ethnomusicology (3). On demand. Topics and techniques in ethnomusicology. Open to students interested in all music as aspects of culture.

MUCH 424. Electronic Music I (3) I. Basic language and literature of electronic music. One noncredit hour a week in listening laboratory.

MUCH 425. Electronic Music II (3) II. Problems of live electronic music. Various commercial equipment reviewed. Prerequisite: MUCH 424.

MUCH 426. Electronic Music III (3) III. Students realize tapes in electronic music studio under faculty supervision. Prerequisite: MUCH 425.

MUCH 427. Computer Music I (3) I on demand. Computer terminology, concepts, and programming techniques as related to musical applications.

MUCH 428. Computer Music II (3) II on demand. Automated techniques for musical analysis and composition. Music program library. Prerequisite: MUCH 427.

MUCH 429. Computer Music III (3) III on demand. Sound synthesis and automated music printing. MUSIC4 digital-syntheses program and hybrid techniques. Prerequisite: MUCH 428.

MUCH 431. Aesthetics of Black Music (4) on demand. West African and Afro-American concepts of music; modifying effects America has had from slavery to present.

MUCH 432. Black Church Music (4) on demand. Black music as functional and effective religious tool, analysis of techniques by which this is accomplished.

MUCH 433. Blues-Jazz: Black Roots (4) on demand. Development of blues and jazz as art forms; stylistic periods and outstanding figures.

MUCH 490. Readings and Research (2-5) I, II, III. Directed independent reading and research in history, philosophy, theory, or aesthetics of music. Prerequisites: 24 hours of music theory and history, and consent of instructor.

*Music Education (MUED)

MUED 120. Percussion Class (1) I, II, III.

MUED 125. Percussion Class (1) II, III. Prerequisite: MUED 120 (elective).

MUED 130. Trumpet Class (1) I, II, III.

MUED 135. Horn Class (1) I, II, III.

MUED 136. Trombone-Euphonium-Tuba Class (1) I, II, III.

MUED 140. Clarinet Class (1) I, II, III.

MUED 143. Saxophone-Bassoon Class (1) I, II, III.

MUED 145. Flute Class (1) I, II, III.

MUED 146. Oboe Class (1) I, II, III.

MUED 147. Bassoon-Reed Class (1) III (elective.)

MUED 150. Class Piano (1) I, II, III. Functional keyboard skills for beginners and those with minimal keyboard experience. Placement into MUED 150 and MUED 151 and MUED 152 determined on basis of audition. Only for credit to music majors and minors. Grade of "C" or better required for admittance into MUED 151. Fee \$15.

MUED 151. Class Piano (1) I, II, III. Continuation of MUED 150. Grade of "C" or better required for admittance into MUED 152. Fee \$15.

MUED 152. Class Piano (1) I, II, III. Continuation of MUED 151. Grade of "C" or better required for admittance into sophomore-level piano classes. Fee \$15.

MUED 153. Class Piano (1) On demand. Remedial course for students who need additional study at the freshman level beyond MUED 152. Fee \$15.

MUED 154. Class Piano (1) I, II, III. Functional skills course for students with advanced keyboard facility. Covers content of MUED 150 and MUED 151 and MUED 152 in one quarter. Grade of "C" or better required for admittance into sophomore level piano classes. Fee \$15.

MUED 155. Class Piano (1) III on demand. For piano emphasis students only; advanced functional skills course. Fee \$15.

MUED 156. Beginning Piano for Non-Music Major I (2) I, II, III. Beginning work in music reading, pop/jazz chords, keyboard technique, improvisation, elementary piano literature. Not open to music majors or minors.

MUED 157. Beginning Piano for Non-Music Major II (2) II, III. Continuation of MUED 156. Not open to music majors or minors. Prerequisite: MUED 156 or equivalent.

MUED 158. Beginning Piano for Non-Music Majors III (2) III. MUED 157 continued. Not open to music majors or minors. Prerequisite: MUED 157 or equivalent.

MUED 170. Voice Class (1) I, II, III. Beginning study of voice production, breathing, posture, and diction through vocalises and songs in English.

MUED 177. Voice Class (1) I, II, III. Continuation of MUED 170. Prerequisite: MUED 170.

MUED 178. Voice Class (1) I, II, III. Continuation of MUED 177. Prerequisite: MUED 177.

MUED 180. Violin-Viola Class (1) I, II, III.

MUED 186. Cello-String Bass Class (1) I, II, III.

MUED 190. Troubadour Harp Class (1) I (elective).

MUED 195. Guitar Class (1) I, II, III.

MUED 240. Introductory Music Field Experience (4) I, II, III. Introduction to profession of music education and to a wide variety of music teaching situations at all levels. Prerequisite: sophomore standing in music. C/F hrs: 40. Required of all sophomores.

MUED 249. Music Fundamentals (3) I, II, III. Development of a functional understanding of the elements of music and a basic awareness of the characteristics of the historical periods of music. C = 15 hours. Not open to music majors.

MUED 250. Class Piano: Instrumental Harmonization and Score Reading I (1) I, II. For intermediate level work in melody harmonization, pop/jazz chords, and sightreading of piano and instrumental scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into MUED 251.

MUED 251. Class Piano: Instrumental Harmonization and Score Reading II (1) II, III. MUED 250 continued. Grade of "C" or better required for admittance into junior-level accompanying course. Prerequisite: MUED 250.

MUED 252. Class Piano: Advanced Instrumental Harmonization and Score Reading III (1) III. Only for students with advanced keyboard facility. Covers content of MUED 250 and MUED 251 in one quarter. Grade of "C" or better required for admittance into junior-level accompanying course. Prerequisite: Piano proficiency I.

MUED 253. Class Piano: Choral Harmonization and Score Reading I (1) I, II. For intermediate level work in melody harmonization, pop/jazz chords, and sightreading of choral scores. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into MUED 254.

MUED 254. Class Piano: Choral Harmonization and Score Reading II (1) II, III. Continuation of MUED 253. Prerequisite: MUED 253. Grade of "C" or better required for admittance into junior level accompanying course.

MUED 255. Music In Elementary School (4) I, II, III. Objectives, materials, procedures involved in teaching of music in first six grades.

MUED 256. Class Piano: Choral Harmonization and Score Reading III (1) III. Only for students with advanced keyboard facility; covers content of MUED 253 and MUED 254 in one quarter. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into accompanying junior level course.

MUED 257. Class Piano: Classroom Harmonization, Transposition, and Improvisation I (1) II. For intermediate level work in melody harmonization, pop/jazz chords, transposition, and improvisation. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into MUED 258.

MUED 258. Class Piano: Classroom Harmonization, Transposition, and Improvisation II (1) III. Continuation of MUED 257. Prerequisite: MUED 257. Grade of "C" or better required for admittance into junior level accompanying course.

MUED 259. Class Piano: Classroom Harmonization, Transposition, and Improvisation III (1) III. Only for students with advanced keyboard facility; covers content of MUED 257 and MUED 258 in one quarter. Prerequisite: Piano Proficiency I. Grade of "C" or better required for admittance into junior level accompanying course.

MUED 331. Student Teaching (15) I, II, III. Supervised teaching in area schools, supplemented by conferences and seminars. Required of all music education majors. Meets student teaching requirement for special teacher's certification in music. Prerequisites and guidelines for student teaching stated under music education. Fee: \$36. Graded S/U.

MUED 332. Student Teaching (3-11) I, II, III. Additional student teaching experience taken upon advice of music education faculty. Special fee assessed. Graded S/U.

MUED 340. Junior Methods Project in Music (13) I, II, III. Concentrated study of teaching and administering music in grades K-12; emphasizes correlation of methods seminars with field and clinical activities. C/F hrs: 30-90.

MUED 349. Music as a Teaching Tool (3) I, II, III. Development of skills in teaching procedure and related aspects of teaching. Acquisition procedures for integrating music into classroom activities. C = 15 hours. Not open to music majors.

MUED 350. Class Piano: Accompanying as Teaching Tool (1) I, II, III. For music education students who are not keyboard emphasis majors; introductory work in accompanying. Prerequisite: Piano Proficiency II. Grade of "C" or better required of music education majors for graduation.

MUED 351. General Music (2) I, II, III. Singing, moving to music, playing piano and classroom instruments, gaining knowledge of elements, symbols, and elementary theory of music. Not open for credit to music major or minor.

MUED 352. General Music (2) I, II, III. Listening to music intelligently, music literature appropriate for children, understanding elements of music in various forms and styles of composition. Not open for credit to music major or minor. Prerequisite: MUED 351.

MUED 353. General Music (2) I, II, III. Role of music in total school curriculum as an art and musical needs of children; developing skills in teaching procedures and related aspects of teaching. Not open for credit to music major or minor. Prerequisites: MUED 351 and MUED 352.

MUED 356. Methods in Music in Senior High School (2). On demand. Subject matter and materials for music in senior high school.

MUED 359. Examination and Performance Choral Repertoire (3) I, II. Suitable for use in secondary schools; related performance problems and their solutions. Prerequisite: MUSP 307.

MUED 360. Musical Theatre Production Survey (3) III. Overview of considerations necessary in production of music theatre at public school level.

MUED 402. Beginning Wind and Percussion Instrument Repair (2) III. Basic practices and techniques.

MUED 450. Adult Group Piano Teaching (3) II. Materials, supervised teaching, and program development appropriate for adult level classes. Open to students with strong piano background. Consent of instructor required. Available for graduate credit.

MUED 451. Advanced Methods for Classroom Music (4) I. Examination of methods, instructional hardware, organizational patterns, and curricular models. Prerequisites: MUED 255 and MUED 355.

MUED 458. Marching Band Techniques (3) I. Techniques in planning, charting, and rehearsing marching band shows; administering public school marching bands. Prerequisite: junior standing or higher.

Music, General (MUS)

MUS 099. Recital Attendance (0) I, II, III. Required of all music majors for nine quarters. Successful completion of course requires attendance at minimum of 10 on-campus music performances. Graded S/U.

Music Performance Studies (MUSP)

MUSP 100. Small Ensembles (1) I, II, III.

Formed under supervision of College of Musical Arts and offered on demand. For freshmen or sophomores. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in Small Ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

MUSP 100a. *Music Theater Productions*

MUSP 100b. *Folk Ensemble*

MUSP 100c. *Percussion*

MUSP 100d. *Brass Choir I*

MUSP 100e. *Euphonium-Tuba*

MUSP 100f. *Brass*

MUSP 100h. *String*

MUSP 100i. *Trombone Choir*

MUSP 100j. *Jazz Lab II*

MUSP 100k. *Woodwind*

MUSP 100l. *Horn Ensemble*

MUSP 100m. *Jazz Lab I*

MUSP 100n. *Brass Choir II*

MUSP 100o. *Harp*

MUSP 100p. *Piano Ensemble*

MUSP 100q. *Piano Accompaniment*

MUSP 100r. *Mixed Chamber*

MUSP 100s. *Collegiate Chamber Singers*

MUSP 100t. *Saxophone Ensemble*

MUSP 160. Sight Reading I (1). On demand. Development of visual comprehension of intervallic patterns and comprehension of basic rhythmic patterns.

MUSP 195, 221, 231-235, 241-245, 261-263, 271-272, 281-285. Applied Instruction.

One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$30 fee for each half hour of applied instruction assessed each quarter. (Maximum of \$60 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

MUSP 195. *Pedal Harp Class* (1) I, II, III. Prerequisite: one quarter of Troubadour Harp (MUED 190) or permission of instructor. Fee: \$15.

MUSP 221. *Applied Percussion* (1, 2, 3, 4) I, II, III, IV.

MUSP 231. *Applied Trumpet* (1, 2, 3, 4) I, II, III, IV.

MUSP 232. *Applied French Horn* (1, 2, 3, 4) I, II, III, IV.

MUSP 233. *Applied Trombone* (1, 2, 3, 4) I, II, III, IV.

MUSP 234. *Applied Euphonium* (1, 2, 3, 4) I, II, III, IV.

MUSP 235. *Applied Tuba* (1, 2, 3, 4) I, II, III, IV.

MUSP 241. *Applied Flute* (1, 2, 3, 4) I, II, III, IV.

MUSP 242. *Applied Oboe* (1, 2, 3, 4) I, II, III, IV.

MUSP 243. *Applied Clarinet* (1, 2, 3, 4) I, II, III, IV.

MUSP 244. *Applied Saxophone* (1, 2, 3, 4) I, II, III, IV.

MUSP 245. *Applied Bassoon* (1, 2, 3, 4) I, II, III, IV.

MUSP 261. *Applied Piano* (1, 2, 3, 4) I, II, III, IV.

MUSP 262. *Applied Harpsichord* (1, 2, 3, 4) I, II, III.

MUSP 263. *Applied Organ* (1, 2, 3, 4) I, II, III, IV.

MUSP 271. *Para-Voice* (2) I, II, III. Fee: \$30.

MUSP 272. *Applied Voice* (1, 2, 3, 4) I, II, III, IV.

MUSP 281. *Applied Violin* (1, 2, 3, 4) I, II, III, IV.

MUSP 282. *Applied Viola* (1, 2, 3, 4) I, II, III, IV.

MUSP 283. *Applied Cello* (1, 2, 3, 4) I, II, III, IV.

MUSP 284. *Applied Double Bass* (1, 2, 3, 4) I, II, III, IV.

MUSP 285. *Applied Harp* (1, 2, 3, 4) I, II, III.

MUSP 209. Introduction to Harpsichord

Playing (1) I, II. Harpsichord touch, fingering, articulation and phrasing, tempo and rhythm, embellishment, and accompanying according to historical principles. Prerequisite: piano proficiency examination or permission of instructor.

MUSP 210. Piano Repertoire (1-3) I. Literature from early keyboard music through Baroque. Prerequisite: consent of instructor.

MUSP 211. Piano Repertoire (1-3) II. Piano literature from Classical into Romantic era. Prerequisite: consent of instructor.

MUSP 212. Piano Repertoire (1-3) III. Piano literature from Late Romantic to present. Prerequisite: consent of instructor.

MUSP 214. Singer's Diction-Italian (2) I. International phonetic alphabet used as basis for phonetic analysis of Italian text in applying principles of lyric Italian diction as concerns the singer; simple grammatic construction; use of dictionary.

MUSP 215. Organ Repertoire (2) I. Offered alternate years. Organ literature before 1750 excluding music of J. S. Bach.

MUSP 216. Organ Repertoire (2) II alternate years. Organ music of J. S. Bach.

MUSP 217. Organ Repertoire (2) III alternate years. Organ literature from 1750 to present.

MUSP 238-239, 277-279, 288-289. Large Ensembles (1-2) I, II, III. Open to any student of University possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 277 or MUSP 278 or MUSP 279 only with consent of his/her voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

MUSP 238 *Symphonic or Concert Band** (freshman-sophomore) (1-2).

MUSP 239. *Marching Band* (freshman-sophomore) (2).*

MUSP 277. *A Capella Choir* (freshman-sophomore) (1).*

MUSP 278. *Collegiate Chorale* (freshman-sophomore) (2).*

MUSP 279. *University Chorus* (freshman-sophomore) (1).*

MUSP 288. *Chamber Orchestra* (freshman-sophomore) (1).*

MUSP 289. *Symphony Orchestra* (freshman-sophomore) (2).*

MUSP 264. Accompanying Technique I (2).

On demand. Problems involving musical comprehension of solo part together with accompaniment; general introduction to vocal and instrumental accompaniment literature. Prerequisite: MUSP 160 or consent of instructor.

MUSP 265. Piano Four-Hand Class (1). On demand. Appropriate four-hand keyboard literature; emphasis on 19th century. Prerequisite: MUSP 160 or consent of instructor.

MUSP 275. Introduction to Opera Workshop (2) I. Basic terminology and practices of opera theatre.

MUSP 300. Small Ensembles (1) I, II, III.

Formed under supervision of College of Musical Arts and offered on demand. For juniors or seniors. May be repeated. All students majoring in performance or with instrumental or vocal emphasis in music education will participate in small ensembles when assigned. Assignments made on basis of needs of student's program. Specific minimum number of credits is required in each program, and this number will apply toward graduation. Work done above minimum may be counted as music electives. Following small chamber ensembles offered:

MUSP 300a. *Music Theater Productions*

MUSP 300b. *Folk Ensemble*

MUSP 300c. *Percussion*

MUSP 300d. *Brass Choir I*

MUSP 300e. *Euphonium-Tuba*

MUSP 300f. *Brass*

MUSP 300h. *String*

MUSP 300i. *Trombone Choir*

MUSP 300j. *Jazz Lab II*

MUSP 300k. *Woodwind*

MUSP 300l. *Horn Ensemble*

MUSP 300m. *Jazz Lab I*

MUSP 300n. *Brass Choir II*

MUSP 300o. *Harp*

MUSP 300p. *Piano Ensemble*

MUSP 300q. *Piano Accompaniment*

MUSP 300r. *Mixed Chamber*

MUSP 300s. *Collegiate Chamber Singers*

MUSP 300t. *Saxophone Ensemble*

MUSP 305. Conducting I (2) I. Fundamental beat and cuing techniques.

MUSP 306. Conducting II (2) II. Continuation of baton techniques. Prerequisite: MUSP 305.

MUSP 307. Conducting III (2) III. Advanced study and analysis of baton technique and score reading; concentration option of either instrumental or choral conducting. Prerequisite: MUSP 306.

MUSP 311. Vocal Repertoire (2) I. Late 19th century and contemporary British and American song literature; repertoire for high school vocal solo contest.

MUSP 312. Vocal Repertoire (2) II alternate years. 19th and 20th century German art song. Recordings and individual performances and reports on repertoire.

MUSP 313. Vocal Repertoire (2) III alternate years. 19th and 20th century French and Spanish art songs. Recordings and individual performances with reports on repertoire.

MUSP 360. Sight Reading II (1). On demand. Rapid comprehension of complex intervallic and rhythmic patterns; coordinates problems involving ensemble precision. Prerequisites: MUSP 160 or equivalent skill level.

MUSP 361. Style and Interpretation (1) I. Supervised preparation and analysis of selected works of early keyboard music through Baroque; emphasis on style and interpretation. Prerequisite: MUSP 212.

MUSP 362. Style and Interpretation (1) II. Supervised preparation and analysis of selected keyboard works from Classical to Romantic period; emphasis on style and interpretation. Prerequisite: MUSP 212.

MUSP 363. Style and Interpretation (1) III. Supervised preparation and analysis of selected keyboard works from Romantic period to present; emphasis on style and interpretation. Prerequisite: MUSP 212.

*Audition or faculty assignment required.

MUSP 364. Accompanying Techniques II (2). On demand. Continuation of previous course work; advanced problems involving visual comprehension and aural prehension of solo part together with accompaniment; problems of temporal displacement of scansion and physical execution. Prerequisite: MUSP 264 or consent of instructor.

MUSP 366. Seminar in Piano Pedagogy (3) I alternate years. Modern pedagogical theory; current physiological and psychological studies in field.

MUSP 367. Piano Pedagogy II (3) II. Methods and materials for private teaching situation. Prerequisite: MUSP 366 or consent of instructor.

MUSP 368. Piano Pedagogy III (3) III. Methods and materials for teaching classes of children and adults.

MUSP 378. Opera Workshop (2) I, II, III. Development of stage techniques for more advanced students in productions of scenes and complete operas. Total of 12 credit hours possible. Vocal performance majors required to take six hours. Prerequisite: MUSP 275 or permission of instructor.

MUSP 396. Service Playing (2) I alternate years. Hymn playing, transposition, modulation, improvisation, and accompanying at organ. Prerequisite: MUCH 206 or consent of instructor.

MUSP 397. Service Playing (2) II. MUSP 396 continued. Prerequisite: MUSP 396 or consent of instructor.

MUSP 398. Service Playing (2) III. MUSP 397 continued. Prerequisite: MUSP 397 or consent of instructor.

MUSP 410. Harpsichord Repertoire (3) I. Keyboard literature from Middle Ages and Renaissance based on original source material and contemporary editions; emphasis on performance.

MUSP 411. Harpsichord Repertoire (3) II. Solo harpsichord literature of 17th century; emphasis on performance.

MUSP 412. Harpsichord Repertoire (3) III. Solo harpsichord compositions of Bach, Scarlatti, and Couperin; emphasis on performance.

MUSP 415. Organ Construction (3) III. Chronological history of design and construction of organ.

MUSP 416. Church Music (3) II. On demand. Music of major Western religions; plainsong, hymnology, liturgies. Prerequisites: MUCH 132 and MUCH 232.

MUSP 421, 431-435, 441-445, 461-463, 471-472, 481-485. Applied Instruction. One credit awarded for each half hour of applied instruction. Performance majors entitled to four credits for one clock hour lesson. \$30 fee for each half hour of applied instruction assessed each quarter. (Maximum of \$60 for any one applied course.) Student enrolled for applied music has access to practice rooms and equipment with schedules and regulations determined by College of Musical Arts.

MUSP 421. Applied Percussion (1, 2, 3, 4) I, II, III, IV.

MUSP 431. Applied Trumpet (1, 2, 3, 4) I, II, III, IV.

MUSP 432. Applied French Horn (1, 2, 3, 4) I, II, III, IV.

MUSP 433. Applied Trombone (1, 2, 3, 4) I, II, III, IV.

MUSP 434. Applied Euphonium (1, 2, 3, 4) I, II, III, IV.

MUSP 435. Applied Tuba (1, 2, 3, 4) I, II, III, IV.

MUSP 441. Applied Flute (1, 2, 3, 4) I, II, III, IV.

MUSP 442. Applied Oboe (1, 2, 3, 4) I, II, III, IV.

MUSP 443. Applied Clarinet (1, 2, 3, 4) I, II, III, IV.

MUSP 444. Applied Saxophone (1, 2, 3, 4) I, II, III, IV.

MUSP 445. Applied Bassoon (1, 2, 3, 4) I, II, III, IV.

MUSP 461. Applied Piano (1, 2, 3, 4) I, II, III, IV.

MUSP 462. Applied Harpsichord (1, 2, 3, 4) I, II, III.

MUSP 463. Applied Organ (1, 2, 3, 4) I, II, III, IV.

MUSP 471. Para-Voice (2) I, II. Fee: \$30.

MUSP 472. Applied Voice (1, 2, 3, 4) I, II, III, IV.

MUSP 481. Applied Violin (1, 2, 3, 4) I, II, III, IV.

MUSP 482. Applied Viola (1, 2, 3, 4) I, II, III, IV.

MUSP 483. Applied Cello (1, 2, 3, 4) I, II, III, IV.

MUSP 484. Applied Double Bass (1, 2, 3, 4) I, II, III, IV.

MUSP 485. Applied Harp (1, 2, 3, 4) I, II, III.

MUSP 438-439, 477-479, 488-489 Large Ensembles (1-2) I, II, III. Open to any student of University possessing necessary musical ability. Any student taking individual voice lessons may register for MUSP 477 or MUSP 478 or MUSP 479 only with consent of voice instructor and conductor of ensemble. All credit earned in large ensembles placed on student's permanent academic record.

MUSP 438. Symphonic or Concert Band (junior-senior) (1-2).*

MUSP 439. Marching Band (junior-senior) (2).*

MUSP 477. A Cappella Choir (junior-senior) (1).*

MUSP 478. Collegiate Chorale (junior-senior) (2).*

MUSP 479. University Chorus (junior-senior) (1).*

MUSP 488. Chamber Orchestra (junior-senior) (1).*

MUSP 489. Symphony Orchestra (junior-senior) (2).*

MUSP 453. Brass Pedagogy (3) III. Teaching techniques and materials for brass instruments.

MUSP 454. Woodwind Pedagogy (3) III. Teaching techniques and materials for woodwind instruments.

MUSP 458. String Pedagogy (3) II. Upper and lower strings. Principles of teaching stringed instruments. Investigation of related literature and materials.

MUSP 459. Organ Pedagogy (3) I or II or III. On demand. Principles and techniques of teaching and literature applied to various levels of organ study.

MUSP 466. Piano Pedagogy Practicum (1) I, II, III. Laboratory in supervised piano teaching, both private and classes. Prerequisite: MUSP 366 or consent of instructor. May be repeated.

MUSP 467. Piano Technology I (2) I. Appreciation of piano building, repair, and tuning. Minor repairs, regulation and art of tuning. Prerequisite: consent of instructor.

MUSP 468. Piano Technology II (2) II. Continuation of MUSP 467. Prerequisites: completion of MUSP 467 and consent of instructor.

MUSP 469. Piano Technology III (2) III. Continuation of MUSP 468. Prerequisites: completion of MUSP 468 and consent of instructor.

MUSP 490. Readings, Research, and Performance in Music (1-5) I, II, III, IV. Directed independent readings, research, and/or performance in performance studies in music. Prerequisite: consent of instructor and department chair.

MUSP 495. Senior Recital (2) I, II, III, IV. For performance studies majors. Full recital required during senior year prior to graduation. Recital repertoire requirements determined in respective areas within Performance Studies Department. Prerequisite: consent of area coordinator.

Nursing (NURS)

NURS 100. Orientation to Nursing (1) I. Assists freshmen in choosing nursing as major and career goal; professional nurse's role, history of nursing, future trends in relation to current U.S. health care delivery system.

NURS 200. Healthy Self and Young Adult (4) I. Two hours of class and six hours of media-skills laboratory and clinical experience each week. Nursing as a profession and self-care deficit theory; assessment of universal self-care requirements; emphasis on health promotion and disease prevention for student and other young adults. Prerequisite: consent of instructor.

NURS 201. Healthy Adult/Older Adult (5) II, III. Three hours of class and six hours of media-skills laboratory and clinical experience each week. Design, implementation, and evaluation of nursing systems to meet universal and developmental self-care deficits in middle-aged and older healthy adults in promotion and maintenance of health; communication skills. Prerequisite: NURS 200.

NURS 202. Healthy Child and Family (5) II, III. Three hours of class and six hours of media-skills laboratory and clinical experience each week. Assisting children and families in meeting universal and developmental self-care requirements; assessing common risks to infant health and childhood development; knowledge of preventive measures related to prenatal/postnatal and infant/child care; communication skills. Prerequisite: NURS 200.

NURS 250. Biochemistry (4) I. Biochemical processes at cellular level related to cell structure and organelles, permeability, enzymes, energy pathways, cell metabolism. Prerequisites: CHEM 111, 112, and 213, and BIOL 201.

NURS 251. Anatomy (4) II. Structure of body systems. Prerequisite: NURS 250.

NURS 252. Physiology I (4) III. Function of muscular, nervous, endocrine, gastrointestinal, reproductive systems. Prerequisite: NURS 251.

NURS 300. Adult Physiologic Health Deviations I (6) I, II, III. Three hours of class and nine hours of clinical experience each week. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in mobility, coordination, regulation and nutrition. Prerequisites: NURS 201 and 202.

NURS 301. Adult Physiologic Health Deviations II (6) I, II, III. Three hours of class and nine hours of clinical experience each week. Assessment of adult clients during illness; design of nursing systems to meet health deviations related to deficits in air, water, elimination. Prerequisites: NURS 201 and 202.

NURS 302. Hospitalized Child and Family (6) I, II, III. Three hours of class and nine hours of clinical experience each week. Health focus oriented to defects of genetic and developmental nature; biological state of newborn, premature, low birth weight infant. Intrapartum maternity experience. Prerequisites: NURS 201 and 202.

*Audition or faculty assignment required.

NURS 310. Concepts in Professional Nursing

I. First part of two-quarter sequence to prepare RN student for entry into senior level nursing; focus on nursing process, concepts, theories, trends in contemporary health care systems; history taking and selected physical assessment skills. Prerequisite: admission to RN sequence.

NURS 311. Health Assessment in the Nursing Profession

(6) II. Second part of two-quarter RN sequence, continuing nursing process and physical assessment skills; self-care theory of nursing. Prerequisite: NURS 310.

NURS 350. Physiology II and Pathophysiology

(4) I. Function of cardiovascular, respiratory, urinary systems; function of disease processes in human organism. Prerequisite: NURS 252.

NURS 351. Microbiology and Infectious Disease Processes

(4) II. Microbiology, immunology, pathologic responses to infection, principal infectious diseases of man; structure and function of bacteria and viruses, antigen-antibody reactions, serology, growth and inhibition of microorganisms, pathogenesis and disease. Prerequisite: NURS 350.

NURS 352. Pharmacology and Therapeutics

(4) III. Pharmacologic principles, drug metabolism, methods by which body handles drugs; classes of drug agents, effects on body's systems. Prerequisite: NURS 351.

NURS 400. Adult Psychologic Health Deviations

(9) I, II, III. Three hours of class and eighteen hours of clinical experience each week. Regulation of behavioral disorders; evaluation of effectiveness of nursing systems with groups of chronically ill clients; rehabilitative mental health care. Prerequisites: NURS 300, 301 and 302, or NURS 310 and 311 for RN students.

NURS 401. Community Health Nursing

(9) I, II, III. Three hours of class, eighteen hours of clinical experience each week. Health focus oriented to groups of chronically ill clients in the community; legislation, financing of health care systems; epidemiologic method of investigation. Prerequisites: NURS 300, 301, and 302, or NURS 310 and 311 for RN students.

NURS 402. Management for Quality Care

(9) I, II, III. Three hours of class, eighteen hours of clinical experience each week. Leadership, change theory and quality assurance concepts applied in management of groups of clients in variety of settings. Prerequisites: NURS 300, 301, and 302 or NURS 310 and 311 for RN students.

NURS 411. Basic Concepts in Nursing Research I

(2) I, II. Formulation of research questions relevant to health care. Graded S/U.

NURS 412. Basic Concepts in Nursing Research II

(2) II, III. The research process; review of literature in relation to health problem. Prerequisite: NURS 411. Graded S/U.

Operations Research (OPRE)**OPRE 380. Introduction to Operations Research**

(4) I, II, III, IV. Philosophy underlying formulation of business problems in quantitative terms. Linear programming, special cases of linear programming, sensitivity analysis, inventory theory. Prerequisite: MATH 125 or MATH 231, sophomore business core, or consent of instructor.

OPRE 480. Linear and Integer Programming

(4) II, III. Modeling industrial and public administration problems via linear and integer programming; sensitivity analysis; parametric programming; dual, cutting plane methods; branch and bound methods; current topics in integer programming. Prerequisite: OPRE 380.

OPRE 482. Computer Simulation of Stochastic Systems

(4) II. Techniques of setting up stochastic models for inventory, production, queuing, scheduling, economic systems; implementing these models using computer simulation languages (e.g. GPSS). Prerequisites: STAT 212 or MATH 442, and at least one computer programming course.

OPRE 485. Introduction to Stochastic Models

(4) II, III. Problems of incorporating risk into decision models; queuing theory; stochastic inventory models; Markov chains; stochastic mathematical programming. Prerequisite: OPRE 380. STAT 315 recommended.

OPRE 487. Network Theory and Special Topics in Mathematical Programming

(4) III alternate years. Modeling industrial and public administration problems via network models; pert, transshipment, assignment, shortest route, maximal flow; out-of-kilter algorithm; goal programming; advanced topics in integer programming. Prerequisite: OPRE 480.

OPRE 488. Theory of Inventory Systems

(4). On demand. Theory and techniques of constructing and analyzing mathematical models of inventory systems; models under stochastic conditions. Prerequisite: OPRE 485.

OPRE 489. Applied Nonlinear and Dynamic Programming

(4) III alternate years. Quadratic and separable programming; gradient projection; penalty function and search methods. Dynamic programming with discrete and continuous variables, and its relationship to linear programming; geometric programming; applications in industry and public administration. Prerequisite: OPRE 480 or consent of instructor.

OPRE 491. Studies in Operations Research

(1-5). On demand. Investigation of selected areas of contemporary problems. May be offered individually and in classes, depending on student needs and nature of material.

Philosophy (PHIL)**◆ PHIL 100. Experiments in Philosophy**

I, II, III. Various topics in philosophy. Subject matter designated in class schedule. Experiments in teaching and subject matter encouraged. Restricted to freshmen and sophomores.

◆ PHIL 101. Introduction to Philosophy

(4) I, II, III. Principal problems of philosophy; existence of God, mind-body, origin and validity of knowledge, freedom and determinism.

◆ PHIL 102. Ethics

(4) I, II, III. Meaning of good and evil and right and wrong in context of contemporary moral issues.

◆ PHIL 103. Logic

(4) I, II, III. Relationship between logic and language, different kinds of arguments and proof strategies, fallacies, and deductive relationships between statements. Not open to students with credit for PHIL 303.

◆ PHIL 204. Aesthetics

(4) I, II, III. Meaning of "beauty" or aesthetic value in art and nature, approached problematically and applied to present-day experience.

◆ PHIL 207. Philosophy of Man and Society

(4) I, II, III. Freedom, authority, law, the state examined philosophically to determine nature of "individual" and "society" and relationship that should exist between them; violence, rights (legal and moral), punishment, alienation, justice, etc.

PHIL 210. Philosophy of Development of Persons

(4) II, III. Self-development and criteria for evaluating life plans. Concepts of self-esteem and social responsibility applied to personal and counseling situations.

◆ PHIL 230. Logic of Science

(4) II. Contemporary views of nature of science; logical positivism, Popper and Kuhn; logic of theories, theory testing, nature of scientific concepts, induction, growth of knowledge, relation of science and art.

◆ PHIL 240. Topics in Philosophy

(4) I, II, III. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.

PHIL 245. Philosophy of Feminism

(4) III. Philosophical presuppositions and specific proposals of feminists; view on sex roles, human welfare, justice and equality, rights, self-actualization, self-respect, autonomy, exploitation, oppression, freedom and liberation, reform and revolution.

PHIL 303. Symbolic Logic

(4) I, II. Notation and proof procedures used by modern logicians to deal with special problems beyond traditional logic; propositional calculus, truth tables, predicate calculus, nature and kinds of logical proofs.

PHIL 310. History of Ancient Philosophy

(4) I. Greek philosophy; Presocratics, Plato, Aristotle, post-Aristotelians.

PHIL 311. History of Medieval Philosophy

(4) II. Major philosophical positions of Middle Ages; St. Augustine through Renaissance philosophers.

PHIL 312. History of Modern Philosophy

(4) III. Western philosophical thought from Renaissance to end of 18th century; emphasis on period from Descartes to Kant.

◆ PHIL 313. Contemporary Philosophy

(4) I. Western philosophy since 1900; logical positivism, analysis, phenomenology, existentialism, and major philosophers in each school.

PHIL 315. American Thought

(4) I, II, III. Philosophical thought in America; emphasis on pragmatists (Peirce, James, Dewey); Natural Rights philosophy, transcendentalism, other major figures such as Royce, Santayana, Whitehead.

◆ PHIL 317. Philosophy of Religion

(4) I, II, III. Nature of religion; gods and/or God; faith, revelation, and religious belief; evil and righteousness; meaning of life. Readings from variety of sources, largely contemporary.

PHIL 318. Philosophy of Law

(4) II. Philosophical foundations of legal system; essential nature of law and relation to morality; liberty, justice, and legal responsibility (intention, human causality, negligence, *mens rea*, fault, etc.) and punishment.

PHIL 319. Philosophy of Death and Dying

(4) I, II or III. Conceptual, metaphysical, and epistemological issues related to nature of death; existential issues related to human significance of death for individual and community; normative issues related to care of dying.

PHIL 320. Business Ethics

(4) I, II, III, IV. Value conflicts that arise in business situations and philosophical ways of resolving them; social responsibility of business people.

- PHIL 321. Indian Philosophy** (4) III. Traditional schools such as Nyaya-Vaisesika, Sankhya-Yoga, Buddhism and Vedanta; epistemology, systems of formal inference, causality, metaphysics, mind-body relationships, methodological presuppositions.
- PHIL 322. Chinese Philosophy** (4) II. Confucianism, Taoism, Legalism, Chinese Buddhism and later development; problems of ethics, nature of man and society, epistemology, metaphysics, and logic.
- PHIL 323. Asian Religions** (4) I. Fundamental tenets of major oriental religions—Hinduism, Buddhism, Jainism, Confucianism, Taoism, and Shintoism; cultural backgrounds of India, China, and Japan.
- ◆ **PHIL 324. History of Occidental Religions** (4). 'Bibles' of four major living religions of Near East—Zoroastrianism, Hebraism, Christianity, and Islam; cultural backgrounds of Egypt, Babylonia, Israel, Greece, and Rome.
- PHIL 325. Communism, Fascism and Democracy** (4) I. Freedom, alienation, human nature, the state, etc. as they function in communist, fascist, and democratic ideology.
- PHIL 327. Philosophy of Punishment** (4) III. Justification of capital punishment; acceptability of imprisonment as punishment; desirability of treating criminals as mentally ill rather than punishing them; related issues of different theories of punishment.
- PHIL 331. Existentialism** (4) I or II. Existentialist views on God and religion, meaning and absurdity, morality, freedom, individual integrity, politics, and psychology; Dostoevsky, Kierkegaard, Nietzsche, Sartre, Jaspers, Marcel, and Camus.
- PHIL 332. Environmental Ethics** (4) I or II. Framework to assess possible responses to environmental problems in light of human rights, standards of justice, and harm and benefit accruing from alternative solutions.
- PHIL 333. Philosophy in Science Fiction** (4) II, III. Ethical problems such as implications for man of advancement of science, relation of individual to state; metaphysical problems such as distinguishing men from robots, possibility of time travel.
- ◆ **PHIL 334. Philosophy in Literature** (4) III. Death, perception of self, conflict of values occurring in novels, plays, and poetry from various cultures. Content may vary from instructor to instructor, and from quarter to quarter. May be taken only once for credit.
- PHIL 335. Philosophy of Film** (4) III. Aesthetic theories concerning definition of film as distinctive art form; criteria for evaluation of films. Popular, documentary, art, and experimental films shown in class.
- PHIL 340. Problems in Philosophy** (4) I, II, III. Subject matter designated in class schedule. Primarily for students with little or no background in philosophy.
- PHIL 342. Medical Ethics** (4) II, III. Abortion, genetic engineering, euthanasia, and experimentation viewed from perspective of representative ethical theories.
- PHIL 395. Workshop on Current Topics** (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format is used. Requirements are usually completed within this expanded time format. May be repeated if topics differ and adviser approves.

PHIL 402. History of Ethics (4) I. Ancient, medieval, and modern ethical theories in relation to historical context; Plato, Aristotle, Hume, Mill, and Kant. Prerequisite: one course in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 403. Advanced Symbolic Logic (4) III. Structure and properties of axiomatic systems; consistency and completeness, meta-theory of propositional and predicate logic, related topics. Theory rather than problem solving stressed. Prerequisite: PHIL 303 or consent of instructor.

PHIL 406. Philosophy of Language (4) III. Historical and contemporary theories of meaning; their use in resolving traditional philosophical controversies and in providing foundation for contemporary analytic philosophy; various interdisciplinary connections.

PHIL 412. Theory of Knowledge (4) I. Origin, content, and certainty of knowledge; philosophical psychology; problems of perception. Prerequisite: one course in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 414. Metaphysics (4). Relation of appearance to reality; problem of universals; mind-body problems; other traditional metaphysical questions. Prerequisite: one PHIL course (excluding 103) or consent of instructor.

PHIL 415. Topics in American Philosophy (4) II or III. Theme or themes central to American philosophy. Prerequisite: one course in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 418. Philosophy of History (4) I. Nature of historical knowledge and certain metaphysically oriented theories of history. Prerequisite: one course in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 419. 17th Century Rationalism (4) I. Descartes, Spinoza, and Leibniz. Prerequisite: PHIL 312.

PHIL 420. 18th Century Empiricism (4) II. Locke, Berkeley, and Hume. Prerequisite: PHIL 312.

PHIL 423. Major Philosophers (4) I, II, III or IV. In-depth, systemic study of views of a major philosopher; emphasis on integration of metaphysical, epistemological and normative theories into a coherent world view. May be repeated if topic differs. Prerequisite: one course in philosophy (excluding PHIL 103 and PHIL 205) or consent of instructor.

PHIL 425. Problems in Social and Political Philosophy (4) III. One or more concepts such as justice, authority, the state, representation, freedom, natural law, etc. Prerequisite: one course in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 431. Topics in Philosophy of Science (4) I, II, III. Content varies from year to year. Topics include: nature of scientific explanation, causality, contemporary empiricism, philosophy of space and time. May be repeated for credit. Prerequisites: four hours in PHIL and/or course work in sciences or consent of instructor.

PHIL 432. Philosophy of Behavioral Sciences (4) III. Methods, presuppositions, concepts of behavioral sciences. Possibility of forming values, freedom and determinism in problems of prediction, vitalism versus mechanism, meaning of man and society. Prerequisite: four hours in PHIL and/or course work in social sciences.

PHIL 433. Philosophy and Physics of Space and Time (4) III. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes, Greek concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Course presupposes high school level mathematics only. Cross-disciplinary; cross-listed in PHYS.

PHIL 440. Seminar in Philosophy (4) I, II, III. In-depth examination of one specific philosopher, philosophical movement, or problem. Determined by need and interest of student. Prerequisite: four hours in PHIL (excluding PHIL 103 or PHIL 205) or consent of instructor.

PHIL 490. Readings and Research (1-4) I, II, III. Supervised independent work in selected areas. Prerequisite: 15 hours of PHIL and consent of chair of department. May be repeated to eight hours.

Physical Education (PEG) and (PEP)

(See health, physical education, and recreation)

Physics (PHYS)

PHYS 100. Basic Physics (4) I, II, III, IV. For nonscience student; major principles and concepts; application to other fields. Cannot be used as part of physics major or minor.

PHYS 101. Physics for Society (4) I, II, III. Relation of physics to areas of natural science, cultural development, and society. Three lecture-recitations and one two-hour laboratory. For nonscience student, not acceptable toward physics major or minor.

PHYS 105. Physics and Sports (4) III. Motion as applied to athletic activities; how basic physical principles apply (e.g. why does "curve ball" curve?); how simple models may be used to make valid predictions.

PHYS 106. Physics of Photography (3) I. Intended to help photographer understand his/her equipment. Elementary optics of lens systems (wide angle to telephoto and zoom); exposure control, black and white film, color theory, stereo-photography.

◆ **PHYS 131. University Physics I** (5) I. Measurement, differential, and integral calculus applied to kinematics in one, two, and three dimensions; vector notation and vector algebra; Newtonian mechanics; gravitation; statics; conservation laws. Five lecture-recitations. Prerequisite: working knowledge of trigonometry required; knowledge of calculus recommended.

PHYS 201. Modern Astronomy (4) I, III. Concepts used to understand recent astronomical discoveries; birth and death of stars, pulsars, black holes, radio galaxies, quasars; galactic and extra-galactic astronomy; how universe is constructed on large scale. Some observational work. Four lecture/discussions. Not open to student with credit for ASTR 201.

◆ **PHYS 214. College Physics** (5) I, II, IV. Kinematics, forces, energy, fluids, heat, thermodynamics. Four lecture-recitations and one two-hour laboratory. Prerequisites: knowledge of algebra and trigonometry.

*The introductory sequence PHYS 131, PHYS 232, PHYS 233, and PHYS 334 intended for science student making use of calculus.

**Introductory sequence PHYS 214, PHYS 215, and PHYS 216 intended for student without calculus.

****PHYS 215. College Physics** (5) II, III, IV. Wave motion, sound and optics; atomic and nuclear physics; relativity. Four lecture-recitations and one two-hour laboratory. Prerequisite: PHYS 214.

◆ ****PHYS 216. College Physics** (5) I, III, IV. Basic electrical and electronics theory; electrical measurement systems with transducers, power supplies, amplifiers, displays and microprocessors. Four lecture-recitations and one three-hour laboratory. Prerequisite: PHYS 214.

PHYS 225. Applied Mechanics (3) III. Force systems, equilibrium, fluid statics, statically determinate structures. Primarily for pre-engineer. Three lecture-recitations. Prerequisite: PHYS 131.

◆ ***PHYS 232. University Physics II** (5) II. Four lecture-recitations and one laboratory. Harmonic oscillations, wave motion, sound, optics, thermodynamics. Prerequisite: PHYS 131. Corequisite: MATH 131.

◆ ***PHYS 233. University Physics III** (5) III. Four lecture-recitations and one laboratory. Electricity and magnetism. Prerequisite: PHYS 232. Corequisite: MATH 231.

PHYS 302. Sound and Ultrasonics (4) III alternate years. Theory of sound and wave motion including ultrasonic phenomena. Four lecture-recitations. To be accompanied by one hour PHYS 313. Prerequisites: MATH 232, and PHYS 214 or PHYS 233.

PHYS 303. Electronics (5) II. Discussion and laboratory practices in networks, transistors, integrated circuits, and associated circuitry. Three lecture-recitations, two three-hour laboratories. Prerequisite: PHYS 216 or PHYS 233.

PHYS 304. Modern Optics (4) III alternate years. Geometrical optics, physical optics, and spectroscopy. Elementary theory of photo-detector properties. Practice in electro-optics systems design. Four lecture-recitations. Prerequisite: PHYS 233 or PHYS 216.

PHYS 306. Heat and Statistical Physics (4) I alternate years. Thermodynamic laws, entropy, specific heats, and statistical physics. Four lecture-recitations. Prerequisites: MATH 232, and PHYS 214 or PHYS 232.

PHYS 313. Advanced Physics Laboratory (1-3) II, III. Independent laboratory work chosen from intermediate areas of classical and modern physics. May be repeated to nine hours. One three-hour laboratory period per credit hour. Prerequisite: PHYS 216 or PHYS 232.

◆ ***PHYS 334. Modern Physics** (5) I. Topics from relativity; quantum physics; nuclear, atomic, and molecular physics. Four lecture-recitations and one laboratory. Prerequisite: MATH 232; and PHYS 215 or PHYS 233.

PHYS 350. Musical Acoustics (4) I. Nature of vibration; sound waves, sources of musical sounds—strings, air columns, percussion, voice, noise; acoustics of rooms; recording, reproduction, and synthesis of sound. Not open to student majoring in physical sciences.

PHYS 402. Numerical Applications in Physical Sciences (1-3) II. Application of computational techniques to contemporary physical science problems. Prerequisite: MATH 131 and CS 400, and introductory sequence of three courses in CHEM, PHYS, or GEOL.

PHYS 403. Stellar Structure and Evolution (4) III alternate years. Basic data, stellar interiors, theoretical models; advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 334 and consent of instructor. Not open to student with credit for ASTR 403.

PHYS 404. Atomic Physics (4) II. Resume of phenomena leading to present concept of atomic structure. Four lecture-recitations. Prerequisites: MATH 232, and PHYS 215 or PHYS 334.

PHYS 407. Recent Progress in Astronomy (4) III 1980-81 and alternate years. Stellar evolution, supernovas and pulsars, black holes, x-ray astronomy, structure of galaxies, radio galaxies, cosmology, quasars. Prerequisite: PHYS 334. Not open to student with credit for ASTR 407.

PHYS 409. Nuclear Physics (4) III alternate years. Nuclear structure and phenomena, nuclear reactions, elementary particle interactions. Four lecture-recitations. Prerequisite: PHYS 404.

PHYS 410. Solid State Physics (4) I alternate years. Continuum and atomic theories of solids, lattice vibrations, specific heat of solids, electron theory of metals and semiconductors. Four lecture-recitations. Prerequisite: PHYS 404 or PHYS 416.

PHYS 412. Infrared Molecular Spectra (4) I alternate years. Origin of spectra of simple molecules. Prerequisite: PHYS 334 or course in physical chemistry.

PHYS 413. Independent Study (1-3) I, II, III. Introduction to research in physics and astronomy; projects chosen in consultation with adviser; may include library and laboratory work. Prerequisite: consent of instructor.

PHYS 416. Mechanics and Waves (4) II alternate years. Vector kinematics of particles in two and three dimensions, dynamics of rigid bodies, Lagrange's and Hamilton's equations, harmonic motion, coupled oscillators, waves in continuous media. Prerequisite: PHYS 441.

PHYS 417. Quantum Mechanics (4) III alternate years. Duality of matter and radiation, state functions and interpretation, Heisenberg uncertainty principle, wave equations and principles of wave mechanics, elementary applications of Schroedinger's equation, operator methods, and approximation techniques. Prerequisite: PHYS 416.

PHYS 418. Electromagnetic Field Theory I (4) II alternate years. Maxwell's theory of electromagnetic field with applications in propagation, absorption, reflection, transmission of radiation. Prerequisites: PHYS 441 and MATH 233.

PHYS 419. Electromagnetic Field Theory II (4) III alternate years. PHYS 418 continued with applications to guided waves and physical optics. Prerequisite: PHYS 418.

PHYS 420. X-Ray Crystallography (3) III alternate years. Crystal symmetry, use and interpretation of x-ray powder patterns, single crystal x-ray diffraction techniques, methods of crystal structure determination. Students wishing to supplement course with laboratory experience should concurrently enroll in PHYS 313 for one hour credit. Prerequisite: consent of instructor.

PHYS 428. Microcomputer Interfacing (4) II. Medium and large scale integrated circuits such as peripheral interface adapters, UARTS, A/D converters are used to interface a microcomputer to external world of laboratory. One class period and three two-hour laboratories. Prerequisites: CS 307; and PHYS 216 or 233.

PHYS 429. Selected Topics in Microelectronics (4) III. An individual, in-depth study of a microelectronic project. Designed to integrate the introductory knowledge gained in PHYS 303 and PHYS 428 into a complete microelectronic system. Four two-hour laboratory periods. Prerequisites: PHYS 428 and PHYS 303.

PHYS 430. Selected Topics in Physics (2-4) On demand. Selected topics not included in existing courses. Scheduling of course may be initiated by department staff or by students. May be repeated as different subjects are offered. Prerequisite: consent of instructor.

PHYS 433. Philosophy and Physics of Space and Time (4) III. Physical theories of space and time from philosophical, scientific, and historical points of view. Topics include Zeno's paradoxes; Greek concepts of space and time, classical Newtonian world view, general ideas of modern theory of relativity and cosmology. Cross-listed in PHIL.

PHYS 441. Introduction to Theoretical Physics (4) I. Approximating with differentials, vector analysis, linear oscillator, vibrating systems, eigenvalue problems. Prerequisites: PHYS 233 and MATH 232.

PHYS 442. Introduction to Theoretical Physics (4) II. Fourier analysis, method of Frobenius, electrostatic potential theory, complex variables. Prerequisite: PHYS 441.

PHYS 490. Special Problems in Physics (1-4). On demand. Readings and research on recently developing topics chosen to fit needs of students.

Political Science (POLS)

◆ **POLS 101. Introduction to Politics** (4) I, II, III. Fundamental concepts and problems of politics illustrated with contemporary examples; comparison of modern political institutions in different cultures. Restricted to freshmen and sophomores.

◆ **POLS 201. American Government: Processes and Structure** (4) I, II, III. Constitutional basis and development, political processes (parties, nominations and elections, interest groups, public opinion), federalism, and institutions of national government.

POLS 221. Introduction to Public Administration (4) I. American administrative system: emphasis on administrative structures and processes; relationship between elected offices and bureaucracy, notion of civil service, modes of managing administrative system.

POLS 250. Human Nature and Politics (4). Contemporary and historical perspectives of what man is and can be in relationship to systematic thought about politics. Fundamentals of critical thought and analysis of political controversies. Designed for general students and for those considering political theory as a field.

POLS 271. Introduction to World Politics (4) I. Basic concepts of international relations; influences on behavior of nations; role of United Nations and other organizations; foreign policy of different regions and states; major world problems. Use of newspapers, audiovisual aids, simulations. Especially for freshmen, sophomores, juniors.

◆ **POLS 290. Introduction to Political Inquiry** (4) I, III. Concepts and theories used by political scientists; traditional- and behavioral-political science; how political scientists establish and evaluate concepts and theories. Required of all majors; should be taken before any 300-level course. Nonmajors must receive permission of instructor.

*The introductory sequence PHYS 131, PHYS 232, PHYS 233, and PHYS 334 intended for science student making use of calculus.

**Introductory sequence PHYS 214, PHYS 215, and PHYS 216 intended for student without calculus.

- POLS 301. Modern Political Ideologies** (4) I, II, III. Nature of political power, freedom, authority, and terrorism as seen in ideologies of democracy, capitalism, liberalism, conservatism, communism, anarchism, socialism, and facism.
- POLS 302. American Domestic Policy Process** (4) I, II, III. Theories of public policy process; models of decision-making analysis; contemporary American domestic policy issues.
- ◆ **POLS 304. American Political Thought** (4) II, III. As reflected in colonial, Federalist, Civil War, and late 19th century political thought.
- POLS 330. Urban Management** (4) I. Urban problems, focus on available policy alternatives and administrative mechanisms; options in terms of efficiency/effectiveness criteria.
- ◆ **POLS 331. State Government** (4) I. Federal-state relations; state constitutions; parties and elections in states; state legislative, executive, and judicial branches. -Emphasis on Ohio.
- ◆ **POLS 332. Local Government** (4) II. Units of local government; state-local relations; municipal corporations and charters; forms of municipal government; county and metropolitan problems; political and service functions of local government. Emphasis on Ohio.
- POLS 333. Politics, Science and Public Policy** (4) On demand. Impact of politics and science in making national science policy. Politics of science, science and its use in making public policy, role of science and technology in America and other industrial countries.
- POLS 334. Health and Medical Policy** (4) II. Policies, issues, process involved in formulation and implementation of health care. Politics of delivery of health care, insurance programs, medical funding, human experimentation.
- POLS 335. Energy Politics** (4) I. Energy-related politics and key resource issues at national, regional, international levels. Not open to students who took POLS 335 Ecopolitics.
- POLS 336. Environmental Politics and Policies** (4) III. Environmental issues, groups; establishing, implementing, evaluating key environmental policies.
- POLS 337. Food Resource Politics** (4) II. How domestic and international political processes affect American food production and consumption through governmental legislation, agency regulation, and international agreement in interdependent world.
- POLS 341. Public Opinion** (4) I. Processes of opinion formation and change and operation of public opinion processes in democracy; models of linkages between public opinion and public policies. Prerequisites: POLS 101 or POLS 201 or comparable level courses in SOC or PSYC, or consent of instructor.
- POLS 342. Mass Media and Public Policy** (4) II. Relationship between media and government in reporting public policy issues; secrecy in government, bias and distortion in news media.
- POLS 345. Legislative Process** (4) II. Legislative behavior and decision making; forces involved in formation of public policy; proposed reforms of Congress. Prerequisite: POLS 101 or POLS 201 or consent of instructor.
- POLS 346. Presidency and Executive Process** (4) I, III. Organization, functions, and powers of office of President and Vice President; roles and presidential leadership psychology.
- POLS 347. Judicial Process** (4) III. American judiciary, particularly Supreme Court, as political institution; decision-making process and interaction of courts with rest of political system.
- POLS 351. Western European Politics** (4) II. Political systems and major policy problems of selected European countries. Political culture, governmental structures, political parties, and interest group roles in policy development.
- POLS 354. Government and Politics of Soviet Union** (4) I. Structures and processes of Soviet political life; Marxist-Leninist ideology; goal of comprehensive political control; drive for social modernization.
- POLS 355. Governments and Politics of Latin America** (4) I. Influence of cultural and socio-economic factors on politics; role of major political interests such as army, Catholic Church, labor, students; political parties; political processes; governmental institutions; significant policy problems.
- POLS 361. Governments and Politics of Middle East** (4) I. Governmental and political processes of Turkey, Iran, Israel, Arab Republic of Egypt, other selected Middle Eastern and North African political systems; major developmental problems of the area.
- POLS 366. Governments and Politics of Southeast Asia** (4) III. Governmental and political forces shaping life in S.E. Asian communities and influencing intra-area developments; relations with major outside powers, international organizations, other area blocs; special reference to cross-cultural communications.
- ◆ **POLS 416. Constitutional Law: Powers and Relationships** (4). Supreme Court cases relating to U.S. governmental structure, powers, and relationships. Prerequisite: POLS 201 or consent of instructor.
- POLS 368. African Political Systems** (4) III. African struggles for independence; problems of development of selected post-independence political systems and guerilla movements in non-independent territories.
- POLS 371. Introduction to International Relations** (4) I. Determinants of behavior of actors in international political system; patterns of interaction among states; present and possible future trends in international system.
- POLS 372. Contemporary World Politics** (4) I, III. Current substantive problems in international politics and major forces and factors affecting them.
- POLS 374. Conduct of U.S. Foreign Affairs** (4). Processes that form and focus U.S. foreign policy: executive/legislative relationships, especially roles of Congressional apparatus, segments of Office of President, National Security Council, political processes within shifting security-oriented bureaucracies; structure and function of foreign service; operations importance of ethnic politics.
- POLS 390. Analysis of Computerized Political and Historical Data** (4) I. (See also HIST 390.) Survey and historical data collected by Inter-University Consortium for Political and Social Research. Familiarization with data-management capabilities of computer program package designed to analyze consortium data. Not open to student with credit for HIST 390.
- POLS 395. Workshop on Current Topics** (1-5) On demand. Intensive educational experience on such selected topics as government public information work (agencies, departments, executive and legislative office), and other state, local, national, and international political affairs. May be repeated if topics differ, on approval of adviser.
- POLS 400. Honors Seminar in Contemporary Political Science** (4) On demand. Political science as discipline and profession; forms of political inquiry and research; scientific and methodological orientations toward values and scholarship; public and professional status of political science. Prerequisite: permission of honors committee. May be repeated to 12 hours.
- POLS 402. Western Political Thought I** (4) I. Classics of political philosophy of ancient and medieval period. Major ideas and concepts of western political tradition from Plato through Middle Ages.
- POLS 403. Western Political Thought II** (4) II. Classics of political philosophy of modern period. Major ideas and concepts of Western political tradition from Machiavelli to Mill.
- POLS 404. 20th Century Political Thought** (4) II or III. Revolution and violence, elite theory, Freudian political thought, existentialist political thought, and democratic theory.
- POLS 405. Recent American Political Thought** (4) III. American political ideas, ideologies, movements with fundamental social and political philosophies from Civil War to contemporary period. Prerequisite: POLS 304 or consent of instructor.
- ◆ **POLS 417. Constitutional Law: Procedural Rights** (4). Due process; right to counsel, search and seizure, electronic surveillance, trial. Prerequisites: POLS 201 or consent of instructor.
- POLS 418. Constitutional Law: Substantive Rights** (4) II. Freedom of speech, press, and religion; equal protection of law, travel and privacy; right to vote. Prerequisites: POLS 201 or consent of instructor.
- POLS 419. Jurisprudence** (4) II. Leading theories and theorists of law; Anglo-American thought and practice.
- POLS 420. Administrative Law** (4) II, III. Legal aspects of administrative process and effect of legal principles and processes on administrative decision making; emphasis on limitation of administrative discretion and judicial review of administrative decisions.
- POLS 421. Administrative Politics** (4) I. Role federal bureaucracy plays in public policy process. Policy development; social and political factors that influence administrative branch of government. Prerequisite: POLS 221 or consent of instructor.
- POLS 422. Survey of Public Administration** (4) II. Fundamental literature, concepts and practices in public administration; discussion of administrative leadership, decision making, communication, fiscal and personnel management aspects of public administration. Prerequisite: POLS 221 or consent of instructor.
- POLS 423. Comparative Public Administration** (4) On demand. Systems of U.S. Britain, Europe, and new states of Asia and Africa; influences of culture and history, difficulties of exporting Western institutions to developing nations.

POLS 424. Supreme Court and Contemporary Issues (4) I. Selected areas of current concern in constitutional law; substantive knowledge of relevant case law, scholarly legal journals which attempt to predict outcome of future constitutional litigation. Prerequisite: POLS 417 or POLS 418.

POLS 425. Constitutional Law Advocacy (4) I. Substantive knowledge of one area in constitutional law; practical skills necessary for constitutional adjudication: techniques of legal research, writing appellate court briefs, and appellate court advocacy. Prerequisites: POLS 416 and POLS 417, or POLS 418 and permission of instructor.

POLS 430. Metropolitan Government (4) III. Urbanization, suburbanization, and metropolitanization; structures of urban government; political and socio-economic consequences of metropolitanization; projected and proposed solutions to metropolitan problems.

POLS 431. Regulatory Policy (4). Development of regulation as instrument for correcting deficiencies of economic market, role in achieving societal purposes, problems of regulatory practice.

POLS 434. Sexual Politics (4) I, III. Socialization to, maintenance of, and change in gender political roles; patterns of dominance and submission in cross-cultural perspective.

POLS 436. U.S. Foreign Policies (4). Major determinants in U.S. foreign policy goals; both enduring and responsively short-term; functioning and potential U.S. alliance systems, economic, military, and cultural facets in our international communication; images and American goals.

POLS 440. Political Parties (4) III. Democracy and political parties: One- and two-party and dual multi-factional or no-party systems in U.S.; party organization; primaries and conventions for nomination; campaigns and elections; electorate; past and future of American parties.

POLS 442. Voter Behavior (4) III. Patterns of election participation and sources of partisan identification; examination of trends over several recent national elections. Prerequisite: POLS 201 or consent of instructor.

POLS 443. Mass Media in Politics (4) I. Techniques of modern election campaigns: management; use of research and voter profiles in developing strategy; tactics of mass persuasion; professional public relations in television and the electronic media.

POLS 444. Political Behavior (4) II. Political attitudes, belief systems, socialization, perception, culture, alienation and authoritarianism.

POLS 452. Political Violence and Revolution (4) II. Seminar offered alternate years. Theories about causes, processes, and consequences of violence as instrument of political competition and social change. Open to advanced social science undergraduate and graduate students or by consent of instructor.

POLS 453. Soviet Behavior and Institutional Development (4) II. Approaches to study of Soviet Union that explain political science as method of analysis; ideological and other approaches to Soviet behavior; pre-Soviet political influences; state and society in Marxism; post-revolutionary developments in Soviet politics; consolidation of power under communist leaders. Prerequisite: POLS 354.

POLS 454. Soviet Political System (4) III. Political and managerial structures and policies of Soviet Union that explain regime and institutional character and tendencies; government and party power structures; ideological influences in social and economic policies; manipulation of decision-making structure; significance of Soviet external policies for major powers and emerging nations. Prerequisite: POLS 354.

POLS 456. Major Governments of Latin America (4) On demand. Political systems of Argentina, Brazil, Chile, Cuba, Mexico, Peru.

POLS 459. Intergovernmental Relations (4) III. Public policy issues and interaction with levels of government in American federal system. Dynamics of intergovernmental relations; grant-in-aid, revenue sharing, and changing federal relationships.

POLS 460. Politics of Developing Nations (4) On demand. Economic, social, political transformation; challenge of old traditions; rise to power of leaders.

POLS 461. Issues in World Development (4) III and on demand. Advanced seminar on global ecopolitics in context of need for equitable development and social justice among nations. Topics: foreign aid, nuclear technology transfer, transnational corporations, population explosion, law of the sea, resource depletion, pollution, desertification, drought, developmental journalism, women in development.

POLS 470. Soviet Foreign Policy (4) II alternate years. Soviet foreign policy in post-war era; domestic and international determinants and consequences for Soviet-Western relations, socialist bloc, and third world.

POLS 473. International Law (4) On demand. History, nature, sources, and applications; relationship between law and society at international level.

POLS 475. International Organization (4) On demand. Major problems facing United Nations and other international organizations.

POLS 490 Individual Problems (1-4) I, II, III. On demand. Supervised individual readings to meet student's need for extended reading in familiar areas or for exploration in fields not covered by courses. Prerequisite: consent of supervising instructor. May be repeated to 12 hours.

POLS 491. Seminar for Interns (4). Required for students planning internships. Survey and analysis of literature dealing with practical political experiences. Use of biographical material as sources.

POLS 492. Field Study (1-4) I, II, III, IV. For students working on political internship programs and political campaigns. May be repeated to eight hours.

POLS 495. Topics in Political Science (1-4) I, II, III. On demand. Subject matter varies. New, one-time courses being offered experimentally. See quarterly schedule for listing. Prerequisite: POLS 101 or POLS 201.

Popular Culture (POPC)

◆ **POPC 160. Introduction to Popular Culture** (4) I, II, III. Basic theories of, approaches to, and topics within popular culture; several selected topics and use of various theories and approaches.

◆ **POPC 165. Popular Culture and Media** (4) I, II, III. Some of the ways in which mass media (TV, film, recording industry, print, radio) have affected modern American culture. Media relationships and interactions.

◆ **POPC 220. Introduction to Folklore and Folklife.** (4) I. Study and collecting of folklore; ballads, myths, tall tales, heroes, folk medicines, superstitions; proverbs, arts, and crafts.

POPC 230. Perspectives on Popular Culture (4) I, II, III. Study of theme, era, or problem of popular culture. Subject matter designated in class schedule. May be repeated once if topics are different.

POPC 240. History of Popular Culture (4) I, II, III. From classical world to present; relationship between society and its popular culture; constant needs of man such as play, sex, ritual, etc.; changing needs of man in changing society.

◆ **POPC 250. Introduction to Popular Film** (4) I, II, III. Popular film as mass entertainment medium; Hollywood studios, popular film formulae, genres, relationships between popular films and movie-going audience; viewing of appropriate films.

POPC 270. Introduction to Contemporary Popular Literature (4) I, II, III. Popular literary formulae, publishing industry, relationship between popular literature and reading public, functions of popular literature in society.

POPC 280. Introduction to Popular Music (4) I, II, III. Relationship between music world and listening-viewing audience; musical styles; trends in popular music, popular performers and entertainers and what they reveal about popular culture; appropriate music listening.

POPC 290. Television as Popular Culture (4) I, II, III. Relationship between popular television programming and American society; viewing of appropriate television.

POPC 350. Advanced Studies in Popular Film (4) II, III. In-depth study of particular aspect of popular film: single genre, particular director, specific studio, etc. May be repeated once if topics are different; viewing of appropriate films.

POPC 355. Studies in History of American Popular Film (4) I, III. Study of specific period in American popular film: silent era, films of Depression, films of post World War II, etc. May be repeated once if topics are different; viewing of appropriate films.

POPC 360. American Dream and American Nightmare (4) II. American and foreign forces that shaped American Dream; reasons why dream never developed according to expectations. Prerequisite: POPC 160 or POPC 165.

POPC 370. Popular Literature (5) I, II, III. Detective, science fiction, western, mystery, best sellers, poetry, magazine fiction. Prerequisite: any 200-level literature course or permission of instructor.

POPC 380. Contexts of Popular Music (4) II, III. In-depth investigation into single aspect of popular music: specific popular music genres, specific musical themes in popular music, popular music industry, etc. May be repeated to eight hours if topics are different. Prerequisite: POPC 280.

POPC 390. Electric Media (4) II, III. Cultural media theory as related to aural and visual electric media, especially radio and television. Impact of these media on contemporary culture. Prerequisite: one course in mass media or permission of instructor.

POPC 395. Workshop on Current Topics (1-5) On-demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within expanded time format. May be repeated if topics differ, on approval of adviser.

POPC 400. Senior Seminar in Popular Culture (4) II, III. Interdepartmental seminar for seniors in POPC program. Selected topics approached from several points of view. Prerequisites: senior standing and major in POPC or in discipline represented in POPC program.

- ◆ **POPC 424. Topics in Folklore (4)** I, II, III. In-depth study of single topic. May be repeated once if topics are clearly different. Prerequisite: POPC 220 or permission of instructor.

POPC 426. Popular Entertainments (4) III. Cultural significance of popular entertainments, past and present; circuses, carnivals, parades, vaudeville, professional and amateur sports, camping, etc. Prerequisite: POPC 160 or POPC 165.

POPC 460. Popular Culture: Advanced Studies (4) I, II, III. In-depth study of particular problem; development of hero in popular arts, cultural analysis of popular film, cultural analysis of popular music, etc. May be repeated once if subject matter is different. Prerequisite: POPC 165.

POPC 470. Popular Literary Genres (4) I, II, III. Study of particular genre: science fiction, western, detective novel, etc. May be repeated once if genres are different. Prerequisite: POPC 370 or permission of instructor.

POPC 490. Problems in Popular Culture (1-4) I, II, III. For advanced student. Independent study. Prerequisite: consent of director of POPC program to proposal approved by staff member three weeks prior to end of quarter. May be repeated to eight hours.

Psychology (PSYC)

- ◆ **PSYC 201. General Psychology (5)** I, II, III, IV. Prerequisite to all courses in department; scientific approach to study of behavior; applications to personal and social behavior. Students participate in departmental research. Open to freshman psychology major.

PSYC 231. Research Methods in Psychology I (4) I, II, III. Research techniques; experimental techniques in learning, memory, language, perception, motivation. Three one-hour lectures and one two-hour laboratory. Prerequisite: PSYC 201. For nonpsychology majors only.

PSYC 232. Research Methods in Psychology II (4) I, II, III. Research techniques; experimental and nonexperimental methods in social and industrial psychology, developmental psychology, personality, and psychopathology. Three one-hour lectures and one two-hour laboratory. Prerequisite: PSYC 231.

PSYC 240. General Seminar (1-5) I, II, III. Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor.

PSYC 270. Quantitative Methods I (4) I, II, III, IV. Descriptive statistics and correlation. Three one-hour lectures and one two-hour laboratory. Prerequisite: PSYC 201 or consent of instructor.

PSYC 271. Quantitative Methods II (4) I, II, III, IV. Parametric and nonparametric tests of significance. Three one-hour lectures and one two-hour laboratory. Prerequisite: PSYC 270.

PSYC 290. Introduction to Laboratory Methods In Psychology (4) I, II, III. Use of apparatus, handling of human and animal subjects, experimental control, elementary problems, and data interpretation in writing formal laboratory reports. Prerequisites: PSYC 201 and PSYC 270. Prerequisite or corequisite: PSYC 271.

PSYC 301. Brain Mechanisms of Behavior (4) I, III. Brain structure and function in organization of consciousness, perception, motivation, and learning; sleep, dreaming, memory, drugs, glands, personality, electrical stimulation of brain. Laboratory hours by arrangement. Prerequisites: PSYC 201 and PSYC 290, or consent of instructor.

PSYC 302. Educational Psychology (4) I, II, III, IV. (See EDFI 302.) Concepts and factors affecting application of psychological principles to educative process. No credit for both EDFI 302 and PSYC 302. Prerequisite: PSYC 201.

- ◆ **PSYC 303. Developmental Psychology (3)** I, III. Major concepts, theories, and principles of developmental psychology. Coverage is from conception until 5-6 years of age. Prerequisite: PSYC 201.

PSYC 304. Developmental Psychology (3) II, IV. PSYC 303 continued; coverage is from 5-6 years of age through adolescence. Prerequisite: PSYC 201 or permission of instructor.

- ◆ **PSYC 305. Psychology of Personality Adjustment (3)** I, II, III, IV. Problems of personal adjustment. Related problems of theory and measurement of personality. Prerequisite: PSYC 201.

- ◆ **PSYC 306. Psychology of Women (4)** I, III. Psychological characteristics of women; personality, adjustment, identity formation, intellectual processes, sexuality; theories and data on female development.

- ◆ **PSYC 307. Psychology of Human Sexuality (4)** I, II, III. Sexual physiology, psycho-social aspects of sexual behavior, sexual dysfunction and therapy, comparative sexual behavior.

PSYC 308. Introduction to Clinical Psychology (4) III. Models and roles associated with delivery of mental health services; major conceptions of psychological assessment and treatment. Prerequisite: PSYC 201.

PSYC 309. Psychology of Aging (3) I, III. Personality, social behavior, memory, sensory and perceptual processes; theories and descriptions of adult behavior. Prerequisite: PSYC 201.

- ◆ **PSYC 311. Social Psychology (3)** I, II. Social behavior covering theoretical issues and recent empirical findings; social influence and conformity processes; nature, measurement, and acquisition of attitudes; attitude change; social perception; group processes; sexual behavior; environmental influences on social behavior. Prerequisite: PSYC 201 or SOC 101.

PSYC 312. Principles of Social Interaction (3) II, III. Theoretical issues and recent empirical findings; animal social behavior; interpersonal attraction, pro-social behavior; aggression; social exchange processes; and social psychology in changing world. Prerequisite: PSYC 201 or SOC 101. PSYC 311 recommended.

PSYC 313. Research In Social Psychology (4) III. Field and laboratory research techniques in social psychology; attitude change, conformity, attraction, environmental effects on social behavior, aggression, group processes. Three lecture hours, two laboratory hours. Prerequisites: PSYC 201 and PSYC 271 and PSYC 290.

PSYC 315. Applied Psychology (4). Applications of principles generated in experimental, industrial, social, perceptual, learning, and other areas of research in psychology to real world situations. Prerequisite: PSYC 201.

PSYC 320. Conditioning (4) I. Classical conditioning and instrumental learning from empirical and theoretical point of view. Laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290.

PSYC 321. Human Learning (4) II. Principles of human learning; verbal learning, performance, and memory. Three lecture hours; laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290.

PSYC 322. Psychology of Thinking (4) I, II. Theory and research on nature of human thinking; problem solving, reasoning, concept formation. Three lecture hours; laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290.

PSYC 323. Psychology of Language (4) I, III. Theoretical and empirical issues in psycholinguistics; speech perception, syntactic and semantic processes, symbolization, relation of language and thinking. Three lecture hours; laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290, or consent of instructor.

PSYC 324. American Sign Language of Deaf (4) I. Manual system of communication used in U.S.; grammar and lexicon of American Sign Language; implications of deafness for language and communication; psycholinguistic studies of Sign Language.

PSYC 327. Biofeedback and Self Control (4) II, III, IV. Basic theory and technique used in control of somatic and visceral responses; biofeedback and other approaches to self-regulation of physiological responses as related to applied and theoretical concerns. Some laboratory experiences. Prerequisite: PSYC 201.

PSYC 328. Psychophysiology (4) I, II, III, IV. Laboratory course in psychophysiology; relationship between psychological states and physiological responses, in human; conditioning of autonomic responses, orienting responses, psychosomatic relationships and disorders, detection of deception. Four lecture hours, laboratory by arrangement. Prerequisites: PSYC 271 and PSYC 290.

PSYC 329. Applied Behavioral Analysis (4) II. Applying behavioral methodology to clinical cases. Research involving applications of experimental analysis of behavior to clinical problems. Prerequisites: PSYC 308 and consent of instructor.

PSYC 330. Psychobiology of Emotions and Motivation (4) II. Biological causes of motivated behaviors such as sleep, hunger, thirst, fear, aggression, and sexual behavior; how motivated behaviors and related emotional states are organized in brain, as elucidated by electrical and chemical stimulation and ablation of living brain. Laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290. PSYC 301 recommended.

PSYC 331. Human Motivation (4) II. Influences on problems of initiative and persistence in behavior, behavior choice, and related motivational phenomena from varied theoretical perspectives. Three lecture hours; laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290.

PSYC 340. Sensation and Perception (4) III. Sensory and perceptual processes. Laboratory hours by arrangement. Prerequisites: PSYC 271 and PSYC 290.

- ◆ **PSYC 352. Work, Effort and Satisfaction** (3) III. Work performance and motivation (as formulated by current theories), job satisfaction, individual differences, and task and situational factors; evaluation of effort, attitudes, and change. Prerequisite: PSYC 201.

PSYC 395. Workshop on Current Topics (1-5) On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated format. Requirements usually completed within time format. May be repeated on approval of adviser.

PSYC 401. History of Psychology (4) II. Selected topics; reading of original sources. Psychopathology, animal psychology, behaviorism, cognitive psychology, personality theory, others. Prerequisite: PSYC 201 or consent of instructor.

PSYC 403. Personality Theory (4) I, IV. Scientific constructs in personality theory; contemporary theories with historical antecedents; assessment of relationship to general psychology. Prerequisite: eight hours in PSYC.

PSYC 404. Advanced Developmental Psychology (3) III, IV. Major theoretical systems reviewed from standpoint of research findings; methodology appropriate for research with children. Prerequisite: consent of instructor.

- ◆ **PSYC 405. Psychology of Abnormal Behavior** (5) I, II, III, IV. Data and concepts used in understanding, labeling, and modifying deviant behavior. Prerequisite: PSYC 201.

PSYC 406. Behavior Pathology In Children (4) III. Major behavioral disorders of childhood: description, etiological implications, treatment issues, approaches and problems, and related research. Prerequisite: PSYC 201 or consent of instructor.

PSYC 411. Psychology of Interpersonal Communication (4) III. Communication in social situations; social communication in nonhumans; evolutionary patterns of social communication; communication as instrument of social influence, organizational, therapeutic, and nonverbal communication. Research findings emphasized. Prerequisite: PSYC 201.

PSYC 412. Experimental Group Dynamics (4) I. Theories, methods, and problems in experimental research in group dynamics. Experimental hours by arrangement. Prerequisites: PSYC 201 or SOC 101, and PSYC 270 or SOC 307, and PSYC 290.

PSYC 413. Applied Experimental Psychology (4) I. Methods and results applied to problems involving systems and other man-machine relationships. Prerequisites: PSYC 201 and PSYC 271 and PSYC 290; or consent of instructor.

PSYC 416. Human Judgment and Decision Making (4) I, IV. Psychology of judgment and decision making; utility theory, computer simulation, and lens model; research in medical diagnosis and decision making; conflict reduction in groups and organizations. Prerequisite: PSYC 201 and any course in STAT

PSYC 421. Theories of Language Development (4) III. Empirical facts of linguistic development; theories to explain how and why language is acquired; relations between cognitive and linguistic development. Prerequisite: PSYC 201 or consent of instructor.

PSYC 425. Community Mental Health (4) I, III. Development, concepts and current models in community mental health; individual and system-centered approaches that promote mental health and prevent psychological maladjustment; federal, state, and county programs. Prerequisite: PSYC 201 or consent of instructor.

PSYC 431. Principles of Subprofessional Mental Health Work (4) I. One of two prerequisites for field placement as subprofessional, taken simultaneously with PSYC 432. Models and roles associated with delivery of mental health services. Prerequisite: PSYC 308 and consent of instructor.

PSYC 432. Behavioral Analysis and Intervention (4) I. One of two prerequisites for field placement as subprofessional, taken simultaneously with PSYC 431. Procedures for behavioral analysis and intervention; participation with practicing clinical "team"; field experiences. Prerequisite: PSYC 308 and consent of instructor.

PSYC 433. Subprofessional Mental Health Practicum I (3) II. Students engage in those mental health activities they trained for during previous quarter. Includes placement in one of variety of mental health settings. Prerequisites: PSYC 431 and PSYC 432 and consent of instructor.

PSYC 434. Subprofessional Mental Health Practicum II (7) III. Field experience for mental health subprofessional. Student increases experience with broad number of mental health problems working in community mental health setting. Prerequisites: PSYC 329 and PSYC 433 and consent of instructor.

PSYC 440. General Seminar (1-5) I, II, III. Specific content areas offered depends on demand and interest of staff. May be repeated three times. Prerequisite: consent of instructor.

- ◆ **PSYC 452. Personnel Selection** (4) II. Methods of selection and assessment for hiring, promotion, etc. in industrial and other organizations; compliance with fair employment practices and equal employment opportunity regulations. Prerequisite: PSYC 201.

PSYC 453. Organizational Psychology: Behavior in Organizations (3) I. Study of research dealing with behavior of individuals within work organizations; role taking processes; group interaction, career path development, performance appraisal procedures, and methods of organizational change. Prerequisite: PSYC 201.

PSYC 454. Interviewing (4) II. Laboratory exercises in administering and responding to interviews differing in structure; behavior, decisions, and interrelationships within interviews; validity and reduction of bias. Prerequisite: PSYC 201.

PSYC 455. Vocational Choice and Career Development (4) II. Cognitive and personality variables associated with career development; ethnic and sex differences in vocational behavior.

PSYC 456. Psychology of Leadership (4) III. Principles of leadership and supervision. Effects of style of leadership upon individual behavior, group attitudes, and organizational effectiveness; leadership from supervisors' and subordinates' point of view. Prerequisites: PSYC 201 and PSYC 270; or consent of instructor.

PSYC 457. Pay and Motivation (3) III. Relationship between pay and goals, working conditions, fringe benefits, and other organizational incentives. Prerequisite: PSYC 201.

PSYC 460. Introduction to Psychological Testing (4) III, IV. Theory and methods of measuring human behavior; representative group tests of intelligence, interest, aptitude, personality. Prerequisites: PSYC 201 and PSYC 270.

PSYC 461. Differential Psychology (4) III. Individual differences and differences associated with identifiable bases of subgrouping within population: sex differences, ethnic differences, age differences, etc., in intellectual, physical, and personality traits.

PSYC 462. Human Development and Growth in Organizations (4) I, II, III. See MGMT 462. Cognitive processes, task design, motivation, organization climate and structure; roles, functions and goals.

PSYC 463. Theories of Intelligence (4) III, IV. Traditional and current theories from view of structure, development, operation; techniques designed for evaluation of intellectual potential and functioning. Prerequisite: PSYC 460 or EDFI 402.

PSYC 470. Quantitative Methods III (5) I, III. Analysis of variance. Four lecture hours and one two-hour laboratory. Prerequisites: PSYC 270 and PSYC 271.

PSYC 480. Evolution of Animal and Human Behavior (4) III. Animal roots of human behavior; evolution of behavioral adaptations; social organization and disorganization; animal communication; relations between complexity of behavior and central nervous system functions; use of animals in elucidating human behavior. Prerequisite: PSYC 301.

PSYC 484. Heredity, Intelligence, and Personality (3) II. Effects of heredity factors on intelligence, mental retardation, personality, schizophrenia; genotype-environment interactions. Recommended: PSYC 270.

PSYC 490. Special Problems in Psychology (1-5) I, II, III, IV. Supervised independent minor research or intensive reading on selected problems. No student may register for course without written approval of staff member concerned. May be repeated to nine hours.

PSYC 495. Senior Honors Seminar (3) I. Seminar in general psychology for senior major. Student required to plan and carry out research project under direction of faculty member. Prerequisite: senior major, approval by department undergraduate committee.

PSYC 496. Senior Honors Seminar (3) II. PSYC 495 continued.

PSYC 497. Senior Honors Seminar (3) III. PSYC 496 continued.

Radio-Television-Film (RTVF)

(See speech communication)

Recreation and Dance (RED)

(See health, physical education, and recreation)

Romance Languages (ROML)

ROML 200. European and Latin American Cinema (4). Films of cultural and literary significance from Mediterranean and Latin American countries seen through study of selected topics, themes, or movements. Taught in English. Includes viewing of films with subtitles.

ROML 262. African Literature in Translation (4) III. Literary masterpieces from or about Africa, including negritude movement. Works originally written in romance languages. Does not count toward French or Spanish major or minor.

ROML 491. Readings in Romance Languages and Literature (1-4) I, II, III, IV. Independent reading for advanced students wishing to conduct comparative study in particular period, author or authors, problem, or genre. Prerequisite: consent of chair of department and instructor.

Russian (RUSN)

Entering students who had Russian in high school should take placement test during summer Preregistration or prior to enrollment in course.

RUSN 100. Introduction to Language Studies: Russian (2) I, II, III. Lecture-reading course in English introducing students to cultural development of Russian language.

***RUSN 101. Elementary Russian** (4) I. Stresses speaking, understanding, reading, and writing.

***RUSN 102. Elementary Russian** (4) II. RUSN 101 continued. Prerequisite: RUSN 101 or one year of high school Russian.

***RUSN 103. Elementary Russian** (4) III. RUSN 102 continued. Prerequisite: RUSN 102.

***RUSN 201. Intermediate Russian** (4) I. Continuation of RUSN 101-103. Grammar, reading, composition, conversation, translation. Prerequisite: RUSN 103 or two years of high school Russian.

***RUSN 202. Intermediate Russian** (4) II. RUSN 201 continued. Prerequisite: RUSN 201 or three years of high school Russian.

RUSN 303. Introduction to Scientific Russian (3) II. Reading and grammar designed for science-oriented students who wish to build effective reading knowledge of scientific Russian. Prerequisite: RUSN 201.

RUSN 311. Russian Literature: From Beginnings Through Pushkin (4) I. Literary trends from 11th to early 19th century; medieval and baroque periods, 18th century classicism and sentimentalism, Pushkin. Lectures in English. Prerequisite: RUSN 202. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 312. Russian Literature in 19th Century (4) II. Social, political, and cultural trends of Golden Age. Principal writers: Gogol, Lermontov, Dostoyevsky, Tolstoy, Chekhov, Goncharov, Turgenev, others. Lectures in English. Prerequisite: RUSN 202. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 313. Russian Literature in 20th Century (4) III. Principal literary monuments in pre- and post-revolutionary periods. Principal writers: Blok, Mayakovsky, Pasternak, Evtushenko, Sholokhov, Solzhenitsyn, others. Lectures in English. Prerequisite: RUSN 202. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 315. Readings in Russian Culture (3) II. Language, syntax, and topics of academic and literary Russian in natural sciences, social sciences, and humanities. Prerequisite: RUSN 201.

RUSN 316. Readings in Russian Culture (3) III. RUSN 315 continued. Prerequisite: RUSN 201.

RUSN 317. Composition and Conversation (3) I. Intensive oral and written work; emphasis on mastery of phonology, basic structural patterns, coordinated with literary readings. Prerequisite: RUSN 201.

RUSN 318. Composition and Conversation (3) II. RUSN 317 continued. Prerequisite: RUSN 317.

RUSN 319. Journalistic Russian (3) III. Practice in language and syntax of contemporary Russian journalism: expository prose, newspapers, journals, monographs, magazines, etc. Prerequisite: RUSN 201. RUSN 317 and RUSN 318 recommended.

RUSN 331. Workshop in Translation (1-4) III. Individualized and/or small group work in translation of scientific, technical, or business writing or other types of expository prose in student's specialty. May be repeated to eight hours. Prerequisite: at least one course from RUSN 202, RUSN 303, RUSN 315, RUSN 316, or RUSN 319.

RUSN 401. Russian Poetry (4) I. Russian lyric from mid-18th century through contemporary Soviet verse. Prerequisites: RUSN 202 and RUSN 311 and RUSN 312 and RUSN 313.

RUSN 402. Russian Novel (4) II. Detailed study of great tradition of Russian novel. Primary readings consist of authors such as Karamzin, Pushkin, Gogol, Turgenev, Tolstoy, Dostoyevsky, Gorky, Solzhenitsyn. May be repeated for credit when offered with different content. Prerequisites: RUSN 311 and RUSN 312 and RUSN 313. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 403. Russian Drama (4) II. Major works of Russian dramatic literature as exemplified by Polotski, Fonvizin, Griboyedov, Pushkin, Ostrovski, Turgenev, Tolstoy; emphasis on Chekhov and Moderns. Prerequisites: RUSN 202 and RUSN 311 and RUSN 312 and RUSN 313. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 415. Cultural and Literary Aspect of Soviet Film (4). On demand. Soviet film both as visualization of Russian literature and as instrument of social and political persuasion through various esthetics—expressionism, socialist realism, psychological realism.

RUSN 417. Advanced Composition and Conversation (3) III. Develops increased facility in written composition and spoken language. Grammatical structure and levels of style in writing and colloquial idiom in spoken dialogue. Prerequisite: RUSN 318.

RUSN 431. Russian Culture (4) I. Culture and civilization of Russian people from origins to recent past. Prerequisite: RUSN 202 or permission of instructor. Open to nonmajors who will read assigned works in English translation and need no prerequisite.

RUSN 432. Russian Folklore (4) I. Survey of major genres of Russian folk literature and folk culture and influence on Russian folk literature and language. Prerequisite: RUSN 202 or permission of instructor. Open to nonmajors who will read assigned works in English translations and need no prerequisite.

RUSN 433. Structure and Growth of Russian Language (4) III. History of standard Russian language linked to cultural developments; special attention to Slavic and non-Slavic influences. Phonetic and grammatical patterns of contemporary Russian. (Required of Russian teaching majors.) Prerequisite: RUSN 202.

RUSN 480. Selected Readings in Russian Literature (3) III. Topic chosen to meet curriculum needs and student requests; May be repeated to six hours. Prerequisites: RUSN 202 and RUSN 311 and RUSN 312.

RUSN 491. Readings in Russian Literature (1-4) I, II, III. Independent reading for advanced student who wishes to study particular period author. Prerequisite: department permission and consent of instructor.

Social Work (SOWK)

◆ **SOWK 110. Survey of Social Services** (4) I, II, III, IV. Social service programs; functions of social workers within these programs.

SOWK 220. Observation and Interviewing in Social Work (4) I, II, III. Development of observational interviewing and recording skills through classroom experiences and volunteer experiences in community social agencies. Prerequisite: SOWK 110.

SOWK 225. Human Behavior and Social Environment (4) I, II. Impact of biological, psychological, and socio-cultural systems on human development and behavior. Prerequisite: junior standing.

SOWK 227. Social Work: Ethnic Perspective (4) I, III. Issues and concepts important to understanding problems surrounding ethnicity and relationship to social work. Prerequisite: sophomore standing.

SOWK 321. Social Welfare Institutions (4) I, II, III. Social welfare as social institution; history, developmental forces, value systems, relationships between, and various roles of public and private agencies. Prerequisite: SOWK 220.

SOWK 322. Social Policy and Social Services (4) I, II. Social problems, social policy, and social services as interrelated areas. Basic models introduced for evaluating and influencing social policy. Prerequisite: SOWK 321.

SOWK 325. Social Work Practice I (4) I, II, III. Components of generic social work practice; problem identification, selection of interventive techniques, development of skills. Prerequisites: SOWK 321 and junior standing and social work major.

SOWK 326. Social Work Practice II (4) I, II, III. Small group processes in context of various social work functions, including direct intervention. Prerequisite: SOWK 325.

SOWK 327. Social Work Practice III (4) I, II, III. Social work practice models, strategies for community organization and change. Prerequisites: SOWK 325 and junior standing and social work major.

SOWK 330. Rural Social Work Assessment (4) I, III. Issues involved in rural social work practice. Visitation of selected rural agencies, assessment of needs and services in selected agencies. Prerequisites: SOWK 220 and permission of instructor.

SOWK 332. Law for Social Workers I (4) I. Legal issues related to social work; court procedure, crime, poverty, and income maintenance. Prerequisite: junior standing.

SOWK 333. Law for Social Workers II (4) II. Legal issues related to social work; family law. Prerequisite: SOWK 332.

SOWK 423. Field Instruction I (8) I, II, III, IV. Experience working in selected social agency under supervision. Emphasis on practice rather than observation. Weekly seminar required. Application deadline two months before placement. Prerequisites: senior standing, social work major, and 2.5 GPA in core courses. Graded S/U.

*Credit toward graduation is not allowed for RUSN 101, RUSN 102, RUSN 103, RUSN 201, and RUSN 202 when equivalent credit has been accepted from high school as part of admission credits except that student is allowed to duplicate one unit of high school study with university credit.

SOWK 424. Field Instruction II (8) I, II, III, IV. Continuation of SOWK 423. Student works in selected social agency under supervision; further development of practice skills. Prerequisite: SOWK 423. In some instances, SOWK 423 and SOWK 424 may be taken concurrently. Graded S/U.

SOWK 440. Capstone Seminar (4) II, III. Exploration and integration of concepts and skills in total curriculum. Individual or small group activity. Prerequisite: senior standing in social work and SOWK 423.

SOWK 470. Topics In Social Work (1-4). On demand. Courses being considered for offering on regular basis. May be repeated.

SOWK 490. Independent Study (1-4) I, II, III, IV. Student designs and carries out study or special project in area of interest. Prerequisite: junior standing, social work major, faculty sponsor, and permission of program director. May be repeated up to 8 hours.

Sociology (SOC)

- ◆ **SOC 101. Principles of Sociology** (4). Elements and concepts of social organization, social change, and group relationships.
- ◆ **SOC 202. Social Problems** (4). Sociological analysis of contemporary social problems. Prerequisite: SOC 101.
- ◆ **SOC 210. Sociology of Religion** (3). Role of religion in society; influence of religion upon society and effects of social structure on religious beliefs. Prerequisite: SOC 101.
- ◆ **SOC 231. Cultural Anthropology** (4). Basic concepts and objectives in study of culture. Range of cultural phenomena and approaches to their study.
- ◆ **SOC 300. Topics in Sociology** (1-4). On demand. Courses being considered for offering on regular basis. See quarterly schedule for listing. May be repeated. Prerequisite: SOC 101.
- ◆ **SOC 301. Social Psychology** (4). Social behavior; process of interaction and interpersonal influence. Prerequisites: SOC 101 and PSYC 201.
- ◆ **SOC 302. Introduction to Classical Sociological Theory** (4). Major theories and concepts of sociology. Prerequisite: SOC 101.
- ◆ **SOC 303. Introduction to Contemporary Sociological Theory** (4). Concepts and frames of reference of major contemporary theories. Prerequisite: SOC 101.
- ◆ **SOC 311. The Community** (4). Communal life from beginnings in folk society; contemporary urban-metropolitan communities, folk urban contrasts, and community types. Prerequisite: SOC 101.
- ◆ **SOC 312. Population and Society** (4). Population growth and distribution; bearing on current economic, political, and social problems. Prerequisite: SOC 101 or consent of instructor.
- ◆ **SOC 314. Popular Music and Society** (4). Formal organization of music industry and its impact on American society. Each facet of the industry examined: performer, production, marketing, record buying. Prerequisite: SOC 101.
- ◆ **SOC 315. American Society** (4). Models of contemporary American society, dominant value orientations. Prerequisite: SOC 101.
- ◆ **SOC 316. Minority Groups** (4). Problem and adjustment of minority groups in American society; conditions that favor and hinder acceptance of such minorities as integral elements in national population. Prerequisite: SOC 101.

SOC 317. Social Inequality (4). Inequalities in distributions of wealth, power, and prestige in societies. Types of systems of inequality; caste, estate, class. Consequences of inequalities for society as whole and for segments of society; educational-occupational opportunities, racial-ethnic relations; social mobility, social change. Prerequisite: SOC 101.

SOC 318. Social Organization (4). Sociological concepts, theories, and models of contemporary complex organizations; impact of social psychological factors on organizational effectiveness, relationship of systems theory to problems of organizational design and behavior. Prerequisite: SOC 101.

SOC 331. Contemporary Cultures (4). Culture area(s) emphasized varies with staff and student interest. Area announced in schedule of classes (Africa, Europe, Near East, Native North America, Latin America, Asia, Pacific). May be repeated to 12 hours. Prerequisite: SOC 231 or consent of instructor.

SOC 332. Archaeology (4). Prehistory of man; early cultural development throughout world. Prerequisite: SOC 231.

SOC 334. Anthropology and Contemporary Human Problems (4). Contemporary cultures as collective patterns of living and attempts to create more human way of life. Methods of depicting and interpreting cultural codes of behavior, thought, feeling. Prerequisite: SOC 231 or consent of instructor.

SOC 341. Juvenile Delinquency (4). Analysis and processes of development, treatment, prevention, and control of juvenile delinquency. Prerequisite: SOC 101.

SOC 342. Deviance and Social Control (4). History of attempts to define and explain deviant behavior. Social conditions and processes associated with careers of deviants; relationship of deviancy to problems of social control. Prerequisite: SOC 101.

SOC 344. Deviant Sexual Behavior (4). Sociological perspective on sexual behaviors stigmatized in U.S.; such aspects as prevalence, social contexts of occurrence, effects on society, sources and impacts of societal reaction, especially criminal law. Prerequisite: SOC 101.

SOC 352. Collective Behavior (4). How new social groupings and order arise from unstructured situations. Behavior of such collectivities as riots, mobs, and crowds. Prerequisite: SOC 101.

- ◆ **SOC 361. The Family** (4). Traditional and contemporary family types; current similarities and differences of family organization in various cultural environments. Prerequisite: SOC 101.

SOC 369. Introductory Statistics (4). Data presentation, measures of dispersion; correlation, regression, probability, probability distributions, sampling distributions, hypothesis testing, and analysis of variance. Prerequisite: SOC 101.

SOC 370. Introductory Methodology (4). Research techniques; measurement, sampling, questionnaire, interview schedules, and data processing. Data coding, keypunching, and computer tape files. Prerequisite: SOC 101.

SOC 371. Introductory Research Design (4). Methods and applications of research on social phenomena; problems that arise in social sciences. Prerequisites: SOC 369 and SOC 370.

SOC 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser.

SOC 403. Sociology of Poverty (4). Literature on poverty; emphasis on U.S. Prevalence of poverty in affluence. Prerequisite: SOC 101.

SOC 404. Social Gerontology (4). Problems of aged in contemporary society. Social gerontology as field of interest of interdisciplinary nature; emphasis on socio-economic approach. Prerequisite: SOC 101.

SOC 413. Urban Sociology (4). Modern cities; development, present state, and problems. Prerequisite: SOC 101.

SOC 414. Society and the Environment (4). Present issues and problems of human environment from sociological perspective; emphasis on analysis of present problems of resources, pollution, technology, population, consumerism, and use of energy. Prerequisite: SOC 101.

SOC 415. Industrial Sociology (4). Social impact of industrialization; interrelationships among industry, business, community, and society. Prerequisite: SOC 101.

SOC 416. Political Sociology (4). Political behavior in society from standpoint of both classical and contemporary sociology. Prerequisite: SOC 101.

- ◆ **SOC 417. Sociology of Sport** (4). Sociological concepts and theories to investigate sport as social institution and relationship to other social institutions; organizational theory and small group research applied to sport; social psychological aspects of sports. Prerequisite: SOC 101.

- ◆ **SOC 418. Social Change** (4). Processes of social change and rational direction of society. Prerequisite: SOC 101.

SOC 419. Problems of Developing Areas (4). Evaluation of cultural, demographic, institutional, and technological aspects of developing areas. Sociocultural factors affecting change. Prerequisite: SOC 101.

SOC 432. Primitive Religion (4). Factors accounting for universality of religion as well as differences in particulars; varieties of belief about sacred and secular, myths and rituals, change in religious systems. Prerequisite: SOC 101.

- ◆ **SOC 441. Criminology** (4). Nature, causes, treatment, and prevention of crime. Prerequisite: SOC 101.

SOC 442. Corrections (4). Socio-psychological approach to origins and development of federal, state, and local penal institutions. Prerequisite: SOC 101.

SOC 443. White Collar and Organized Crime (4). Criminal behavior within and by organizations; analyses of employee theft, graft, corporate crime, governmental crime, professional crime, syndicated crime. Prerequisite: SOC 101.

SOC 449. Field Work, Corrections (4). Field work experience in approved corrections agency. Arrangements (usually one full day per week plus individual conferences and group seminar for two consecutive quarters) must be approved in advance by instructor. May be repeated once. Prerequisite: senior standing. Graded S/U.

SOC 453. Ethnological Theory (4). Anthropological theories and varying uses of concept of culture in social sciences. Prerequisite: SOC 231 and consent of instructor.

SOC 460. Family and Sex Roles (4). Theoretical and empirical literature on family and sex roles; socialization, changing nature of women's and men's roles and prospects for future. Institutional sources of women's and men's roles in other cultures. Prerequisite: SOC 101.

SOC 463. Leisure, Work, and Retirement (4). Sociological analysis of these three aspects of life cycle. Crises in personal life occasioned by each of these stages and by transitions from one stage to another. Prerequisite: SOC 101.

SOC 480. Senior Seminar (4). On demand. Selected topics in sociology. Recent seminars have included sociology of women, individual and sociology, contemporary social critics, the family, alternatives and critiques. May be repeated. Prerequisites: SOC 101 and consent of instructor.

SOC 490. Readings and Research (1-4). Supervised independent work in selected areas. Extensive reading of more advanced literature in particular field or carefully planned research. May be repeated.

Spanish (SPAN)

♦ ***SPAN 101. Elementary Spanish I (4)** I, II. Beginning oral-aural study of language with attention to grammar. Four class periods and scheduled oral practice each week.

♦ ***SPAN 102. Elementary Spanish II (4)** I, II, III. SPAN 101 continued. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 101.

♦ ***SPAN 103. Elementary Spanish III (4)** I, II, III. SPAN 102 continued. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 102.

SPAN 111. Hispanic Cultural Series I (4) I, II. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory.

SPAN 112. Hispanic Cultural Series II (4) I, II, III. Study of Hispanic cultures, combined with development of language awareness essential for reading comprehension. Discussion in English. No laboratory. Prerequisite: SPAN 101 or SPAN 111.

SPAN 113. Hispanic Cultural Series III (4) I, II, III. Continuation of SPAN 112. No lab. Prerequisite: SPAN 112 or SPAN 102.

SPAN 141. Conversational Spanish for Medical Personnel (5). Practice in speaking and understanding oral Spanish; essential expressions, questions, and directions needed by medical personnel.

♦ ***SPAN 201. Intermediate Spanish I (4)** I, II, III. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 103 or two years of Spanish in high school.

♦ ***SPAN 202. Intermediate Spanish II (4)** I, II, III. SPAN 201 continued. Four class periods and scheduled oral practice each week. Prerequisite: SPAN 201 or three years of Spanish in high school.

SPAN 211. Hispanic Cultural Series IV (4) I, II, III, IV. Further development of reading skill. Reading in masterpieces of Hispanic literature and related cultural texts. Prerequisite: SPAN 113 or SPAN 103 or two years of Spanish in high school.

SPAN 212. Hispanic Cultural Series V (4) I, II, III, IV. Continuation of SPAN 211. Prerequisite: SPAN 211 or SPAN 201 or three years of Spanish in high school.

SPAN 221. Hispanic Songs (1) I, II, III. Traditional and popular songs from various Hispanic countries, sung in Spanish; emphasis on study of texts and pronunciation. May be repeated to maximum of three hours. Prerequisite or corequisite: SPAN 101, or consent of instructor.

SPAN 231. Hispanic Folk Dancing (1) I, II, III. Traditional dances of Spain and Spanish America, especially those of Mexico and Colombia. Learning and performance of dances accompanied by regional and historical background. May be repeated to maximum of three hours. No prerequisite.

SPAN 301. Cultural Roots of Spanish-Americans (4). Literature of expansion of New Spain and Mexico to north; Spanish and Indian cultural heritage; interaction of Indians, whites, and blacks in U.S. Southwest; emergence of new ethnic group, Hispano-Americans; their problems and accomplishments. Prerequisite: one year of Spanish or permission of instructor.

SPAN 351. Spanish Composition (3) I, III. Development of writing skill through structured and spontaneous practice. Prerequisite: SPAN 202.

SPAN 352. Spanish Conversation (3) II. Development of speaking skill; sound, structure, and context. Prerequisite: SPAN 202.

SPAN 354. Grammar Review (3). Review of Spanish grammatical structures; emphasis on morphology and syntax. Prerequisite: SPAN 351 or SPAN 352.

SPAN 360. Introduction to Literary Analysis (3) I. Concepts of literary analysis and application to selected texts from Peninsular and Latin American literature; prose and poetry. Prerequisite: SPAN 354.

SPAN 367. Introduction to Spanish Peninsular Literature (4) III. Outstanding authors, works, and movements of Peninsular literature from Middle Ages to present. Prerequisite: SPAN 360 or SPAN 354, and consent of instructor.

SPAN 368. Introduction to Spanish American Literature (4) III. Outstanding authors, works, and movements from time of discovery to present. Prerequisite: SPAN 360 or SPAN 354, and consent of instructor.

SPAN 371. Spanish Civilization (4). Political, social, intellectual, artistic life of Spain. Essential background for literature students and those preparing to teach Spanish. Prerequisite: SPAN 351 or SPAN 352.

SPAN 377. Civilization of Mexico and Caribbean (3) I. Cultural development of Mexico, Central America, and Caribbean area. Prerequisite: SPAN 351 or SPAN 352.

SPAN 378. Civilization of South America (3) III. Cultural development of Spanish-speaking South American countries. Prerequisite: SPAN 351 or SPAN 352.

SPAN 380. Introduction to Spanish-English Bilingualism (3) III. Concepts and facts of bilingual-bicultural programs in U.S. Prerequisite: SPAN 202 or equivalent.

SPAN 382. Spanish Business Correspondence (3). Spanish for commercial purposes; business letter writing. Prerequisite: SPAN 351 or SPAN 352.

SPAN 431. Spanish American Fiction I (4) alternate years. Origins and purposes of most important works and writers of romanticism, realism, naturalism, modernism, and regionalism. Prerequisite: SPAN 368.

SPAN 432. Spanish American Fiction II (4) alternate years. Trends in contemporary Spanish American novels and short stories; techniques of Borges, Fuentes, Garcia Marquez, others. Prerequisite: SPAN 368.

SPAN 440. Masterpieces of Spanish Middle Ages and Pre-Renaissance (4) alternate years. Representative examples of poetry, prose, and drama: *Poema de mio Cid*, *Libro de buen amor*, *La Celestina*. Prerequisite: SPAN 367.

SPAN 441. Masterpieces of Spanish Golden Age (4) alternate years. Selected works by dramatists, poets, and prose writers; Lope de Vega, Quevedo, Cervantes; picaresque novel. Prerequisite: SPAN 367.

SPAN 442. Spanish Literature of 19th Century (4) alternate years. Outstanding works of 19th century; romanticism, realism, naturalism; prose and poetry. Prerequisite: SPAN 367.

SPAN 444. Spanish Literature of 20th Century (4) alternate years. Outstanding works from end of generation of 1898 to present. Includes prose and poetry. Prerequisite: SPAN 367.

SPAN 450. Advanced Grammar and Composition (4). Grammar and composition intended for teachers of Spanish. Prerequisite: SPAN 351 and SPAN 354 or permission of instructor.

SPAN 455. Applied Linguistics (4). Phonological, morphemic, syntactical, semantic aspects of Spanish; application to language learning. Prerequisite: 12 hours beyond SPAN 202 or permission of instructor.

SPAN 463. Career Spanish (3). Skills in translation from Spanish to English and English to Spanish. For students interested in careers in technology, business, research. Prerequisite: SPAN 354.

SPAN 475. Generation of 1898 (3). Literary prose of representative essayists, novelists, poets at turn of century in Spain. Prerequisite: SPAN 367.

SPAN 481. Spanish-American Literature: Colonial Period (3). Writers and works from time of discovery through colonial period. Prerequisite: SPAN 368.

SPAN 485. Spanish-American Poetry (3). Modernism and subsequent developments in 20th century; Afro-Caribbean poetry; Dario, Mistral, Neruda. Prerequisite: SPAN 368.

SPAN 486. Spanish-American Theatre (3). From origins to present; development of La Plata area theatre and modern Mexican theatre. Prerequisite: SPAN 368.

SPAN 488. Contemporary Mexican Literature (3). Outstanding works of 20th century. Prerequisite: SPAN 368.

SPAN 489. Hispanic Studies (3). Intensive study of author, literary school, genre, or selected theme. May be repeated to nine hours if topics are clearly different. Prerequisite: SPAN 367 or SPAN 368.

*Credit toward graduation is not allowed for SPAN 101, SPAN 102, SPAN 103, SPAN 201, or SPAN 202 when equivalent credit has been accepted from high school as part of admission credits except that student is allowed to duplicate one unit of high school study with University credit and that student with two years of high school study is allowed to take SPAN 102 and SPAN 103 for credit.

SPAN 491. Readings in Hispanic Literature

(4) I, II, III, IV. Independent reading for advanced student who wishes to study particular period or author. Prerequisite: consent of chair of department and instructor.

SPAN 492. Themes in Spanish American Literature (3). Study of limited number of specific themes, such as man's relation with nature or problems of urban poor, as depicted in outstanding prose and poetry from different regions and different periods in Spanish America. Prerequisite: SPAN 368.

Special Education (EDSE)

(See education, special)

Sports Studies and Management (SSM)

(See health, physical education, and recreation)

Theatre (THEA)

(See speech communication)

Visual Communication Technology (VCT)

(See technology)

Women's Studies (WS)

WS 200. Introduction to Women's Studies (4). Individual and collective achievements of women; roles women do and might perform; "nature" of women and ways it has been imagined in our own and other cultures. Required of women's studies majors and minors.

WS 300. Topics in Women's Studies (4). Topics of interest in studying women in subject area not offered in regular college course offerings. May be repeated twice if topics differ. No prerequisite.

WS 400. Senior Seminar in Women's Studies (4). Theories, methods, and approaches to women's studies. Interdisciplinary research project required. Required of all women's studies majors and minors. Prerequisite: senior standing.

WS 490. Independent Study in Women's Studies (1-4). Study project to be designed by student and member(s) of women's studies faculty in subject area not offered in regular course offering. Prerequisite: junior or senior standing.

Health, Physical Education, and Recreation, School of

Health Education (HED)

◆ **HED 109. Personal Health** (3) I, II, III, IV. Personal health concepts. Not open to students with credit for HED 209.

◆ **HED 110. Community Health** (2) I, II, III, IV. All aspects of community health.

HED 113. Cardiopulmonary Resuscitation (CPR) (1) I, II, III, IV. Basic life support for victim of sudden cardiac arrest; lecture and laboratory. Meets two hours weekly for five weeks. Successful completion leads to certification by American National Red Cross. C/F hrs: 8.

HED 209. Advanced Concepts of Personal Health (5) I, II, III. Breadth of study appropriate to level of comprehension required of specialist in health education.

HED 230. Humanizing Health Education (2) I, II. Theories and methods of values clarification, affective learning, transactional analysis as they relate to health teacher and student. Prerequisite: sophomore standing.

HED 301. Women's Health (3) II. Health topics of special interest and importance to women. HED 338 highly recommended.

◆ **HED 313. Advanced First Aid and Safety Education** (4) I, II, III, IV. Accident prevention and emergency care of injuries and sudden illness. Satisfactory completion results in Red Cross certification in advanced first aid and emergency care.

◆ **HED 314. First Aid—Instructor's Course** (2) II, III. Leads to American Red Cross first aid instructor's certificate. Prerequisites: junior standing and current Red Cross standard and advanced certificates.

HED 338. Concepts of Human Sexuality (4) I, II, III, IV. Physiological, social, moral, and legal aspects. Prerequisite: junior standing or consent of instructor.

HED 340. Drug Use/Abuse (4) I, II, III. Knowledge regarding ambiguity of drugs in society; physical, psychological, social ramifications of drug use/abuse. Prerequisites: HED 209 and junior standing; or consent of instructor.

HED 346. Health Education for the Elementary School Teacher (3) I, II, III, IV. Content and techniques for teaching health education in elementary school.

HED 348. Instructional Techniques in Health Education K-12 (4) I, II, III. Principles, planning, methods, materials, resources, human relations of teaching health, including provisions for individual student presentations. Should be taken concurrently with HED 349. Prerequisites: HED 110 and HED 209; or consent of instructor. C/F hrs: 15.

HED 349. Teaching Health Education (1) I, II, III. Practical experience in preparing and presenting health lessons; two hours per week. Corequisite: HED 348. Prerequisite: HED 110 and 209; or consent of instructor. C/F hrs: 20.

HED 362. Driver Education—Basic Instructor's Course (5) I, II, IV. First of two courses needed to qualify student to organize, administer, and teach driver education. Prerequisite: junior standing and driver's license. Not open to elementary education major. Extra fee of \$15.

HED 393. Practicum in Health Education (4) I, III. Field experience in health education in elementary and/or secondary school. Assignments include spending two full days per week in the field and attending regular seminars. Prerequisites: HED 348 and HED 313; health education major or minor. C/F hrs: 127.

HED 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

HED 409. School Health Services and School Environment (4) I, II, III, IV. School health services and school environment, principles of organization and administration of health appraisal, health counseling, communicable disease control, education adjustments, emergency programs, record keeping, safe school environment. C/F hrs: 9.

HED 462. Driver Education: Advanced Instructor's Course (4) II, III, IV. Second of two courses needed to qualify student to organize, administer, and teach driver education in secondary schools. Prerequisites: junior standing in College of Education, valid driver's license, and HED 362. Extra fee of \$10.

HED 470. Independent Study in Health and Physical Education (2-5) I, II, III. Project must be approved by project supervisor prior to registration. Open to majors and minors only. May be repeated.

HED 480. Seminar in Teaching Controversial Issues in Health Education (3) I, II, III. Teaching methods and procedures in discussing sex education, mental health, tobacco, alcohol, drugs.

HED 481. Senior Seminar in Health Education (3) I, II, III. Seminar approach to issues and problems faced by school health educators: content comprehension and organization; instructional dilemmas encountered in student-teaching; evaluative procedures specific to total health program.

Physical Education, General (PEG)

◆ **PEG 100. General Physical Education** (1) I, II, III, IV. Each freshman must fulfill the University requirement of three units from activities such as archery, curling, dance, racquetball, skiing, swimming, ice skating, diving, weight training. Most activities are coeducational. Two hours per week. Graded S/U.

◆ **PEG 200. General Physical Education** (1) I, II, III, IV. Elective program in diverse activities. Open to any student who has completed the University required three hours in PEG 100. Two hours per week.

Physical Education, Professional (PEP)

PEP 104, 108-123. Beginning Activity Courses.

Elective program of basic skill and knowledge development within each sport and aquatics. Open to nonmajors with permission of instructor.

PEP 104. *Badminton* (1) I, II.

PEP 108. *Diving* (1) III.

PEP 109. *Fencing* (1) I.

PEP 110. *Field Hockey* (1) I, alternate years

PEP 112. *Golf* (1) I, III.

PEP 113. *Gymnastics Apparatus for Women* (1) I, II, III.

PEP 114. *Lacrosse* (1) III, alternate years

PEP 116. *Softball* (1) III.

PEP 117. *Swimming* (1) I.

PEP 118. *Synchronized Swimming* (1) I.

PEP 119. *Tennis* (1) I, III.

PEP 120. *Track and Field* (1) I, III.

PEP 121. *Volleyball* (1) I, II.

PEP 122. *Archery* (1) II.

PEP 123. *Soccer* (1) I.

PEP 105. Sports Skills and Coaching Techniques (3) I. Development of fundamental skills and knowledge for teaching badminton, swimming, and volleyball.

PEP 107. Sports Skills and Coaching Techniques (3) I, III. Development of fundamental skills and knowledges for teaching tennis, golf, and soccer.

PEP 137. Educational Dance I (2) I, II, III. Four hours a week. Dance as means of expression which interprets how body moves. Where it is in space, what it can do, and relationship present.

PEP 138. Educational Gymnastics I (2) I, II, III. Four hours a week. Functional movement and concepts underlying how body moves, where it is in space and what it can do both on and off apparatus.

PEP 161. Rebound Tumbling (1) I, III. Acquisition of physical skills performed on rebound tumbling apparatus, selected relative to accepted progression of difficulty appropriate to school settings with stress on mechanics of execution, safety, spotting procedures.

PEP 162. Gymnastic Apparatus for Men (1) II, III. Acquisition of beginning gymnastic apparatus skills, limited to olympic events, selected relative to accepted progression of difficulty in which emphasis is on principles of gymnastic movement grouped into patterns of conceptual similarity.

PEP 163. Elements of Tumbling and Floor Exercise (1) I, III. Acquisition of tumbling and floor exercise skills, selected relative to accepted progression of difficulty based upon mechanical principles of gymnastic movement grouped into patterns of conceptual similarity.

PEP 164. Introduction to Movement Analysis (3) I, II, III. Analysis of aquatic and sport activities through application concepts and physical laws.

PEP 170. Wrestling Fundamentals and Teaching Procedures (1) II. Fundamentals of wrestling.

PEP 204-221, 223, Intermediate Activity Courses. Elective program of intermediate skill and knowledge development within each sport and aquatics. Practical application of skill analysis, strategy, teaching, and officiating where applicable. Prerequisite: successful completion of comparable beginning level competency at BGSU for Plan I and II majors.

PEP 204. *Badminton* (2) II alternate years.

PEP 207. *Basketball* (2) II.

PEP 208. *Diving* (2) III alternate years.

PEP 209. *Fencing* (2) II alternate years.

PEP 210. *Field Hockey* (2) I alternate years.

PEP 212. *Golf* (2) III alternate years.

PEP 213. *Gymnastics Apparatus for Women* (2) III.

PEP 214. *Lacrosse* (2) III alternate years.

PEP 216. *Softball* (2) III.

PEP 217. *Swimming* (2) II.

PEP 218. *Synchronized Swimming* (2) I alternate years.

PEP 219. *Tennis* (2) I.

PEP 220. *Track and Field* (2) III.

PEP 221. *Volleyball* (2) I, II.

PEP 223. *Soccer* (2) III.

PEP 222. Advanced Synchronized Swimming (2) II, III. For advanced synchronized swimmer to participate in annual production and demonstrations; choreography, lighting, publicity, and production. Laboratory hours arranged. May be repeated to eight hours. Prerequisite: consent of instructor.

PEP 225. Advanced Life Saving (2) I, II, III. Completion certifies student to act as official life guard. Prerequisite for Water Safety Instructor. One one-hour lecture and one two-hour laboratory.

PEP 233. Laboratory Experiences with Children (2) I, II, III. Observation and work with children in school setting; observing student-teacher behavior, assisting teacher, working with individual children. May be repeated to six hours. C/F hrs: 40.

PEP 235. Professional Reading and Writing in Physical Education (2) III. Reading and interpretation of literature in physical education; writing professional paper; treatment of pertinent statistical techniques. Prerequisite: ENG 112.

PEP 237. Teaching Educational Dance to Children (3) III. Children's dance; methodology, progression, program content. Prerequisite: PEP 137. C/F hrs: 15.

PEP 238. Teaching Educational Gymnastics to Children (3) II. Educational gymnastics; progression, program content, methodology. Prerequisite: PEP 138. C/F hrs: 21.

PEP 241. Educational Games Teaching to Children (3) I, II, III. Structure and teaching progression of games for elementary school child; social, motor, and cognitive aspects of games. Four hours a week. Not open to freshmen. Prerequisites: PEP 137 or 138 or consent of instructor. C/F hrs: 40.

PEP 247. Practical Experience (4) I, III. Supervised field experience with 11-18 age group. Not open to first or second quarter freshmen. Prerequisite: PEP 164. Corequisite: SPCH 102 and L&EM 301. Graded S/U.

PEP 254. Survey of Physical Education in Elementary School (3) I, III. Philosophy, objectives, program, methods, evaluation, and developmental motor patterns of young child. Prerequisites: PEP 137, PEP 138, and PEP 241. C/F hrs: 20.

PEP 256. Concepts of Physical Education (3) I, II. Introduction to profession of physical education; objectives of physical education, elementary school and secondary school physical education, career opportunities. Physical education majors and minors only.

PEP 261-271. Advanced Sports Skills and Coaching Techniques.

PEP 261. *Basketball* (3) I. Development of skill knowledge, strategy, and teaching ability for basketball.

PEP 262. *Baseball* (3) I. Development of skills, knowledge, strategy, and teaching ability for baseball.

PEP 263. *Soccer* (3) I. Development of skills, knowledge, strategy, and teaching ability for soccer.

PEP 264. *Gymnastics* (3) II. Development of skills, knowledge, strategy, and teaching ability for gymnastics. Prerequisites: PEP 161 and PEP 162 and PEP 163.

PEP 265. *Swimming and Diving* (3) II. Development of skills, knowledge, strategy, and teaching ability for swimming. Prerequisite: PEP 105.

PEP 266. *Football* (3) III. Development of skills, knowledge, strategy, and teaching ability for football.

PEP 267. *Ice Hockey*. Development of skills, knowledge, strategy, and teaching ability for ice hockey.

PEP 268. *Lacrosse* (3) III. Development of skills, knowledge, strategy, and teaching ability for lacrosse.

PEP 269. *Track and Field* (3) III. Development of skills, knowledge, strategy, and teaching ability for track and field.

PEP 270. *Wrestling* (3) III. Development of skills, knowledge, strategy, and teaching ability for wrestling. Prerequisite: PEP 170.

PEP 271. *Tennis* (3) I. Development of skills, knowledge, strategy, and coaching ability for tennis.

PEP 302. Structural Kinesiology (4) I, II, III, IV. Functional anatomy as related to normal and abnormal movements. Osteology, myology, arthrology, and peripheral nervous systems. Two one-hour lectures and two two-hour laboratories. Prerequisite: sophomore standing.

PEP 303. Biomechanics (4) I, II, III. Human motion through examination of internal and external forces acting on the body. Prerequisites: PEP 164 and PEP 302.

PEP 322. Red Cross Water Safety—Instructor's Course (WSI) (3) II, III. Completion certifies student to conduct and certify Red Cross Swimming and Life Saving Courses except WSI. Prerequisite: current Advanced Life Saving Certificate, evidence of teaching need, and consent of instructor.

PEP 332. Teaching-Learning Process (4) I. Analysis of student-teacher behavior through in-school experiences; developing and improving teacher-learning effectiveness; personal assessment; development of techniques.

PEP 340. Motor Development (4) III. Physical growth and motor development of human body; rapid anatomic growth periods in early and late childhood, development patterns, observation of children.

PEP 342. Physical Education in Elementary Schools (4) I, II, III, IV. For classroom teacher. Principles, objectives, curriculum, and instructional and resource materials. Not open to student with credit for PEP 332.

PEP 350. Motor Learning (4) I, II, III. Perception, learning motivation, other psychological factors of motor learning and performance. Prerequisite: PSYC 201.

PEP 352. Instructional Techniques in Secondary Physical Education (4) I, II, III. Principles, objectives, teaching methods, resources, classroom management, classroom procedure, lesson planning, curriculum, and field experience in secondary school physical education. Prerequisite: EDFI 302 or consent of instructor.

PEP 356. Philosophical and Cultural Basis of Physical Education (4) II, III. Philosophy and culture pertinent to shaping of physical education as discipline.

PEP 360. Exercise Physiology (4) II, III. Current concepts relating to physiology of human movement; identification and examination of integrated human functions; adaptive mechanisms in operation during stress of muscular activity. Three lectures and one two-hour laboratory a week. Prerequisite: BIOL 331 and BIOL 332.

PEP 372. Teaching Motor Activity (5) I, III. Principles, objectives, lesson planning, instructional materials, teaching methods, curriculum, and field experience in physical education in secondary schools. Five hours a week. Prerequisites: PEP 350 and EDFI 302 and admission to secondary school physical education concentration.

PEP 387. Practicum (1-8) I, II, III. Practicums available in each program area below are under supervision of Physical Education—Professional Division (PEP). Petitioning and approval required of each student before registration. Credit hours for each experience approved separately for program area offering practicum. Specific minimum number of credits may be required in various program areas—check requirements with senior checklist and/or adviser or area heads. Practicums available in following areas:

387a. *Adapted Physical Education*

387f. *Elementary School Physical Education*

387d. *Secondary School Physical Education*
C/F hrs: 30.

PEP 392. Practicum in Physical Education (3) I, II, III. Field experience in physical education in public schools. Weekly assignments include being in public school two full days and attending regular seminars. Prerequisites: HED 313 and PEP 352 and junior standing. Extra fee.

PEP 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

PEP 402. Assessment and Evaluation in Physical Education (4) I, II, III. Assessment and evaluation principles and techniques applied to the learner and programs in physical education. Three lecture and two laboratory hours.

PEP 412. Organization and Administration of Physical Education and Interschol Athletics (4) II, III. Organization and administration of total physical education program including intramurals, extramurals, and interscholastic athletics. Prerequisite: senior standing, EDCO 331 recommended.

PEP 428. The Movement Approach to Teaching Physical Education to Children (8) II. Selection, design, and application of learning experiences appropriate for elementary school child based on movement concepts. Prerequisite: PEP 332. C/F hrs: 100.

PEP 433. Fundamentals of Adapted Physical Education and Recreation (4) I, II, III, IV. Principles, objectives, and history. Disabilities in relation to movement, instructional and resource materials, assessment and individualization, observations, field work and field trips. C/F hrs: 35.

PEP 434. Movement Without Sight (3) III and on demand. Implications of movement and physical activity for visually handicapped; role of vision in determining physical activity; developmental aspects relating to motor area. Prerequisite: senior or graduate standing.

PEP 435. Motor Performance of Exceptional Children (4). Relationship of neuro-muscular patterns to movement of exceptional children; theory; practical field work in programming for exceptional people.

PEP 438. Seminar in Elementary School Physical Education (3) I. Identification and examination of selected current problems and issues in elementary school physical education. Prerequisites: EDCO 331 and PEP 428. C/F hrs: 30.

PEP 443. Physiological Effects of Motor Activity (4) II, IV. Physiological adaptation to exercise; metabolic and cardiovascular components, heat stress, body composition, other related topics. Includes laboratory experiences. Prerequisite: BIOL 332.

PEP 461. History of Physical Education (4) II. Seminar course with opportunity for class discussion and individual research.

PEP 468. Secondary School Physical Education Seminar (3) I, II, III. Problems and development of total physical education program at secondary school level. Prerequisites: EDCO 331 and PEP 372.

PEP 470. Independent Study in Physical Education (2-5) I, II, III, IV. Project must be approved by project supervisor and program area chair prior to registration. May be repeated.

PEP 487. Practicum (1-8) I, II, III. Practicums available in each program area below are under supervision of Division of Physical Education—Professional (PEP). Petitioning and approval required of each student before registration. Credit hours for each experience approved separately for program area offering practicum. Specific minimum number of credits may be required in various program areas—check requirements with senior checklist and/or adviser or area heads. Practicums available in following program areas:

487a. *Adapted Physical Education*

487f. *Elementary School Physical Education*

487d. *Secondary School Physical Education*.

PEP 490. Seminar in Physical Education (4) III. Current issues and trends in physical education; supplemented by individual study. Prerequisite: PEP 332 or PEP 372.

Recreation and Dance (RED)

RED 106. Beginning Ballroom Dance (1) I. Basic skills and knowledges of social and ballroom styles.

RED 111. Beginning Folk and Square Dance (1) I. Basic skills and knowledges of folk and square dance styles.

RED 115. Beginning Modern Dance (1) I, II, III. Basic skills and knowledges of modern dance.

RED 120. Classical Ballet. Technique and Theory I (2) III. Classical technical fundamentals; correct body alignment, basic adagio and allegro combinations. Two activity hours twice weekly. May be repeated up to eight hours. Prerequisite: PEG 100 or consent of instructor.

RED 178. Camp Leadership (4) I, III. Designed for students interested in camp counseling; emphasis on camp activities, principles and practices of program planning.

RED 180. Rhythmic Implementations (2) I. Elementary musical concepts and application in movement.

RED 186. Major Concepts in Recreation (3) II, III. Recreation through critical study of current professional concepts. Open to recreation majors only.

RED 205. Recreation in Community (4) I, II. Methods and materials used on playgrounds and in recreation centers; objectives and theories of leadership and program planning in games, tournaments, mixers, skits, group singing, and special events.

RED 206. Intermediate Ballroom Dance (2) II. Continuation of basic skills and knowledge of ballroom styles of dance. Prerequisite: RED 106 or consent of instructor.

RED 211. Intermediate Folk and Square Dance (2) II. Continuation of basic skills and knowledge of folk and square dance styles. Prerequisite: RED 111 or consent of instructor.

RED 215. Intermediate Modern Dance (2) I, II, III. Continuation of basic skills and knowledge of modern dance. Prerequisite: RED 115 or consent of instructor.

RED 220. Classical Ballet, Technique and Theory II (2) I. Continuation of RED 120. Additional studio instruction of classical ballet techniques; more difficult levels of adagio and allegro combinations. Two activity hours twice weekly. May be repeated up to eight hours. Prerequisite: RED 120 or consent of instructor.

RED 224. Dance Performance Workshop (2) III. Experience in choreography and participation as member of concert group. May be repeated to eight hours. Prerequisite: consent of instructor.

RED 226. Principles of Dance in Art and Education (2) I. Fundamental forms, concepts, and principles of dance as educational discipline and performing art.

RED 227. Dance Improvisation (2) II alternate years. Activity class; discovery, creativity, relationships, and expression of human movement.

RED 273. Introduction to Outdoor Recreation (4) I. Recreational use of outdoor resources, programming governmental agencies, socioeconomic factors, and environmental consciousness. Prerequisite: RED 186.

RED 294. Outdoor Pursuits (3) III. Development of concepts and skills for outdoor living; criteria for equipment and food selection, trip planning and leadership in backpacking, bicycle towing and canoe tripping. Weekend trip required. Prerequisite: intermediate camping skills.

RED 303. Advanced Ballroom Dance (2) II. Continuation of intermediate skills and knowledge of ballroom styles of dance. Prerequisite: RED 206 or consent of instructor.

RED 315. Advanced Modern Dance (2) I, II, III. Continuation of intermediate skills and knowledge of modern dance. Prerequisite: RED 215 or consent of instructor.

RED 320. Classical Ballet, Technique and Theory III (2) II, III. Continuation of Red 220. Additional studio instruction in classical ballet techniques; advanced levels of adagio and allegro combinations. Two activity hours twice weekly. May be repeated up to eight hours. Prerequisite: RED 220 or consent of instructor.

RED 323. Camp Administration (3) II. Budgets, equipment, campsites, program, and personnel. Designed for student preparing for camp administrative position. Prerequisite: RED 178 or camp counseling experience.

RED 325. Modern Dance Techniques and Theory (2) I, II, III. Studio instruction of modern dance technique fundamentals; development of physical and mental requirements of dance performance.

RED 326. Dance Composition (2) III alternate years. Creative study in selection, structure, and development of movement themes for solo and small group composition.

RED 327. Choreography Workshop (1) I, II. Dance movement and composition in relation to line and space in preparation for concert performance.

RED 373. Concepts of Outdoor Education (4) II and on demand. Various approaches to outdoor education; resident outdoor experiences, day camps, life-skill emphasis, Outward Bound adaptations, mobile labs, therapeutic-oriented outdoor experiences, and outdoor education center.

RED 374. Techniques in Outdoor Education (4) III and on demand. Methods, materials and educational techniques for outdoor education; ecological/environmental studies, outdoor arts and crafts, nature awareness and interpretive activities, and weekend outdoor experience.

RED 384. Organization and Administration of Recreation (5) I, II. Theory and practice in planning managing programs and budget preparation. Open to recreation majors only. Prerequisites: RED 186 and RED 205.

RED 385. Recreation Program Development (4) III. Fundamental principles of program planning in recreation; current practices in program administration; types of programs considered in relation to individual needs, interests, capacities, age, sex, scheduling, public relations, supervision, evaluation. Prerequisite: RED 384.

RED 387. Practicum (1-8) I, II, III. Practicums available in each program area listed below are under supervision of Division of Recreation and Dance (RED). Petitioning and approval required of each student before registration. Credit hours for each experience approved separately for program area offering practicum. Specific minimum number of credits may be required in various program areas; check requirements with senior checklist, adviser or area heads. Graded S/U. Practicums available in following program areas:

RED 387b. Dance

RED 387j. Recreation

RED 387k. Recreation Leadership

RED 395. Workshop on Current Topics (1-5). On-demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

RED 424. Survey of Dance History (3) II alternate years. Dance from primitive times through Renaissance; development of ballet; emergence of modern dance in 20th century.

RED 426. Dance Production (3) III alternate years. Problems and techniques in dance production; lighting, sound, costuming, direction, publicity and general management.

RED 470. Independent Study in Recreation and Dance (2-5) I, II, III, IV. Project must be approved by project supervisor and program area chair prior to registration. May be repeated.

RED 482. Evaluation of Recreation Services (4) I. Methods, techniques and application of evaluation process in a variety of functions normally found in recreation and park services including clientele, programs, personnel, facilities, organization. Prerequisites: senior status, RED 384.

RED 483. Recreation Areas and Facilities (5) II. Acquisition, development, construction, maintenance, operation of recreation areas, facilities, buildings. Prerequisite: RED 384.

RED 484. Contemporary Issues in Recreation (4) III. Seminar in current issues. Prerequisite: junior or senior standing.

RED 487. Practicum (1-8) I, II, III. Practicums available in each program listed below are under supervision of Division of Recreation and Dance (RED). Petitioning and approval required of each student before registration. Credit hours for each experience approved separately by program area offering practicum. Specific minimum number of credits may be required in various program areas; check requirements with senior checklist, adviser or area heads. Graded S/U. Practicums available in following program areas:

RED 487b. Dance

RED 487i. Recreation Administration

RED 487n. Recreation Supervision

RED 488. Field Work in Recreation (15) I, II, III, IV. For recreation majors only. Prerequisites: two practicums in recreation, 90 credit hours in area of emphasis, RED 384 and consent of division. Graded S/U.

Sports Studies and Management (SSM)

SSM 304-305, 308-309, 311-324. Advanced Activity Courses. Elective program of advanced coaching strategy, skill and knowledge development within each sport, aquatics, and dance. Prerequisite: successful completion of comparable intermediate level competency at BGSU.

SSM 304. Women's Basketball (2) II.

SSM 305. Women's Gymnastics (2) II.

SSM 308. Women's Lacrosse (2) III.

SSM 309. Fencing (2) II.

SSM 311. Field Hockey (2) I.

SSM 312. Golf (2) III.

SSM 316. Softball (2) III.

SSM 317. Swimming (2) II.

SSM 319. Tennis (2) I.

SSM 321. Volleyball (2) I.

SSM 324. Track and Field (2) III.

SSM 306. Officiating, Individual Sports (2) I, III. Philosophy, principles, rules, and techniques of officiating gymnastics, aquatics, or track and field. Leads to OHSAA registration when applicable. Four hours a week. May be repeated twice.

SSM 307. Officiating, Team Sports (2) I, II. Philosophy, principles, rules, and techniques of officiating basketball, field hockey, or volleyball. Leads to OHSAA registration when applicable. Four hours a week. Prerequisite: successful completion of beginning skills class within particular sport. May be repeated twice.

SSM 310. Care and Prevention of Sports Injuries (3) I, II, III. Lecture and laboratory experience in bandaging, taping, and transportation of injured athlete. Limited to students in College of Education. Recommended: BIOL 332.

SSM 328. Principles, Ethics, and Problems of Athletic Coaching (5) I, II, III. Seminar approach to non-technical, "off field" aspects of athletic coaching; educational implications; coaching ethics; public relations; equipment financing; liability; coach-athlete rapport. Prerequisite: sophomore standing; major or minor, coaching minor, or consent of instructor.

SSM 329. Coaching-Football (3) I. Strategy, leadership, team organization, methods.

SSM 330. Coaching-Track (3) III. Strategy, leadership, team organization, methods.

SSM 331. Coaching-Basketball (3) I, II. Strategy, leadership, team organization, methods.

SSM 332. Coaching-Baseball (3) III. Strategy, leadership, team organization, methods.

SSM 335. Designing and Directing Fitness and Sport Programs (4) III. Objectives, transactions, procedures to conduct professional physical activity and sports programs. Prerequisites: four hours of SSM 387, and SSM 423.

SSM 364-369. Sports Officiating. Lecture and laboratory experience in rules and mechanics of officiating. Prepares for OHSAA Officials' Examination.

SSM 364. Officiating Football (2) I.

SSM 365. Officiating Wrestling (1) II.

SSM 366. Officiating Basketball (2) II.

SSM 367. Officiating Baseball (2) III.

SSM 368. Officiating Track and Field (1) III.

SSM 369. Officiating Soccer (1) I.

SSM 387. Practicum-Physical Activity and Sport (1-8) I, II, III. Under supervision of SSM division of School of HPER. Petitioning and approval required of each student before registration. Credit hours for each experience approved separately by program area.

SSM 391. Practicum in Athletic Studies (3) I, II, III. Field experience with interscholastic athletic teams at junior or senior high school level. Assisting with interscholastic team, and weekly on-campus seminars. Prerequisite: SSM 328, concentration in athletic coaching or athletic training, and permission of instructor.

SSM 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics related to skill development, content update, or materials development. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated on approval of adviser.

SSM 410. Advanced Techniques of Athletic Training (4) III. Mechanism of sports injuries, recognition of severity, examination, treatment, and rehabilitation of specific areas of injury. Prerequisite: SSM 310 and BIOL 331, or consent of instructor.

SSM 421. History and Philosophy of Sport (4) I. Major historical and philosophical development in sport.

SSM 423. Scientific Foundations of Physical Fitness (4) III. Assessment and development of physical fitness. Prerequisite: PEP 360.

SSM 425. Women and Sport (4) III. Historical, cultural, psychological, and physiological consideration of women's participation in sport.

SSM 429. Scientific Foundations of Athletic Coaching (4) III. Selected concepts and principles from anatomy, kinesiology, physiology, and physics (mechanics) relevant to effective athletic coaching. Open to PEP majors by permission of instructor.

SSM 431. Problems of Intramural and Extramural Sports (3) II. Planning, promoting, and administering intramural and recreational sports.

SSM 487. Practicum—Physical Activity and Sport (1-8) I, II, III. Under supervision of SSM division of School of HPER. Petitioning and approval required of each student before registration. Credit hours for each experience approved separately by program area.

SSM 489. Internship in Sport Studies and Management (15) I, II, III, IV. For sport management majors only. Prerequisites: two practicums in sport management, 80 hours in area of concentration, GPA of 2.5 and 3.0 in major field. Student must meet and maintain these standards for one quarter prior to internship assignment. Graded S/U.

SSM 490. Professional Resources in Sports and Activities (4) III. Professional resources for leadership roles in sports and activities. Prerequisite: SSM 387. Graded S/U.

Speech Communication, School of

Communication Disorders (CDIS)

CDIS 121. Personal Remediation of Communication Disorders (2) I, II, III, IV. Students having speech, language, or hearing problem requiring remedial treatment urged to take advantage of services offered by speech and hearing clinic. No credit toward graduation. Additional fee: \$10. Graded S/U.

CDIS 122. Speech Improvement (2) I, II, III. Clinical course for student who has minor speech problems and is interested in personal speech improvement. No credit toward graduation. Additional fee: \$10. Graded S/U.

◆ **CDIS 223. Introduction to Communication Disorders** (4) I, II, III, IV. Normal speech and language development; description and etiology of various communication disorders, i.e., articulation, voice, stuttering, etc.

CDIS 226. Phonetics (4) I, II, III. Sounds of spoken English, their production and recognition. Applications to techniques in speech pathology and habilitation of the hearing handicapped. Prerequisite: CDIS 223 or CDIS 423.

CDIS 324. Introduction to Hearing Science (4) I, III. Physical parameters of hearing. Psychoacoustics and anatomy and physiology of hearing mechanism. Prerequisites: CDIS 223 and CDIS 226.

◆ **CDIS 325. Neurogenic Disorders of Communication** (4) I. Nature of selected neurologically based disorders of communication; approaches to diagnosis and treatment. Prerequisites: CDIS 331 and CDIS 422; non-majors must also obtain consent of instructor.

CDIS 328. Introduction to Audiology (4) I, II. Audiometric pure-tone testing methods, otological pathologies and associated hearing problems, and hearing conservation programs. Prerequisite: CDIS 324.

CDIS 330. Voice Disorders and Cleft Palate (4) I, II. Functional and organic aspects of voice disorders and cleft palate in children and adults; etiologies, diagnoses, and therapy. Prerequisites: CDIS 223 and CDIS 226 and CDIS 422.

CDIS 331. Articulation Development and Disorders (4) I, II, III. Development, diagnoses, and therapeutic techniques for problems of articulation. Clinical observation required. Prerequisites: CDIS 223 and CDIS 226.

CDIS 332. Stuttering (4) I, III. Definition, description, development, and maintenance of stuttering; approaches to diagnosis and treatment in children and adults. Prerequisites: junior standing and PSYC 305 or consent of instructor.

CDIS 333. Language Acquisition, Assessment, and Remediation (4) I, II, III. Normal language acquisition patterns in children. Mechanisms of acquisition, language assessment, and remediation programs and techniques. Prerequisites: CDIS 331 and ENG 380.

CDIS 391. Prepracticum in Communication Disorders (3) II, III. Introduction to clinical setting; student will be involved in planning, observing, and assisting in therapy. Two lectures, two observation periods per week. Prerequisites: CDIS 330, 331, 332, and 2.25 gpa. C/F hrs: 15.

CDIS 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements are usually completed within time format. May be repeated if topics differ, on approval of adviser.

CDIS 422. Anatomy and Physiology of Speech Mechanism (4) I, III. Neuromuscular system involved in breathing, phonation, and articulation and physiological aspects of speech production. Prerequisites: CDIS 223 and CDIS 226.

CDIS 423. Introduction to Communication Disorders for the Classroom Teacher (4) I, II, III, IV. Identification, etiologies, and characteristics of communication disorders. Suggestions for classroom management of communication disorders. Not open to student with credit for CDIS 223.

CDIS 424. Diagnosis and Assessment of Communication Disorders (5) I, II, III. Clinical techniques in appraisal and diagnosis of communication disorders in children and adults. Practical experience in evaluation and reporting. Prerequisites: CDIS 325, 330, and 333.

CDIS 426. First Practicum in Communication Disorders (3) I, II, III, IV. Supervised clinical experience with children and adults. Two lectures and two clinical periods per week. Prerequisites: CDIS 391 and 424 and 2.5 GPA in CDIS courses and 40 approved observation hours and consent of instructor. C/F hrs: 30.

CDIS 427. Second Practicum in Communication Disorders (3) I, II, III, IV. Supervised clinical experience with children and adults. Two lectures and two or more clinical periods per week. Prerequisites: CDIS 426 and 2.5 GPA in CDIS courses and consent of instructor. C/F hrs: 15.

CDIS 433. Introduction to Rehabilitative Audiology (4) II, III. Rehabilitation of hearing-impaired. Speech-reading, auditory training, and amplification systems. Prerequisite: CDIS 328.

CDIS 434. Teaching Beginning Speech to Deaf (3) II. Speech development of deaf. Analysis of auditory, tactile, proprioceptive, and visual aspects of speech sounds. Relative difficulty of producing speech sounds and teaching them. Prerequisites: EDSE 461 and EDSE 464. C/F hrs: 10.

CDIS 435. Organization and Management of School Speech, Language, and Hearing Program (4) I, II, III. Planning and implementing programs in schools for speech-language and hearing handicapped pupils. Clinician's roles and responsibilities. Course taken quarter prior to student teaching. Prerequisite: grade of "C" or better in all CDIS courses. Three one-hour lecture-recitations and one two-hour laboratory. C/F hrs: 20.

CDIS 436. Teaching Advanced Speech to Deaf (3) III. Review and comparison of methods in teaching speech to deaf. Common problems in speech classes for deaf. Speech sounds and their maintenance and correction as integral part of academic curriculum. Prerequisite: CDIS 434. C/F hrs: 10.

CDIS 490. Independent Study in Communication Disorders (1-5) I, II, III. For advanced student who wishes to do intensive study in pathology or audiology independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of program chair.

Interpersonal and Public Communication (IPCO)

IPCO 110. Intercollegiate Forensic Activities (1) I, II. For student who wishes to participate in intercollegiate debate, discussion, oratory, extemporaneous speaking, or other individual events. May be repeated to four hours.

◆ **IPCO 203. Small Group Communication** (4) I, II, III. Social interaction in small groups; problem solving processes.

IPCO 204. Argumentation: Inquiry and Advocacy (4) I, II, III. Principles of argumentation; analysis, evidence, reasoning, and refutation.

◆ **IPCO 205. Public Speaking** (4) I, II, III. Principles of public speaking and speech composition in professional, business, and educational settings; use of audio-visual material.

IPCO 303. Persuasive Communication (4) I, II, III. Theories and concepts of persuasive communication; attitude change, audience analysis, and strategies of persuasion.

◆ **IPCO 304. Leadership in Group Communication** (4) II. Conceptions, methods, and techniques of leadership related to group communication process. Prerequisite: IPCO 203.

◆ **IPCO 305. Human Communication** (4) I, II, III, IV. Process by which senders and receivers of messages interact in given social contexts; focus on core of specific theories which derive from varying perspectives on speech communication process.

◆ **IPCO 306. Interpersonal Communication** (4) I, II, III, IV. Purposive two-party communication, reduction of defensive climates as means of facilitating effective communication. Practical experiences in information seeking, persuasive, and personal interviews.

IPCO 307. Speech Communication in Organizations (4) I, II, III. Message initiation, diffusion, and reception in organizational setting. Function and conduct of meetings, including parliamentary procedure, and relationship to organizational setting.

IPCO 310. Intercollegiate Forensic Activities (1) I, II. Similar to IPCO 110, but for juniors or seniors. May be repeated to four hours.

IPCO 311. Contemporary Minority Voices (4) III. Analysis of contemporary minority communication: strategies, nature of minority audiences, and discussion of political philosophies of various spokesmen for minority affairs.

IPCO 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. May be repeated if topics differ, on approval of adviser.

IPCO 402. Critical Analysis of American Public Communication (4) II. Principles of rhetorical criticism applied to studies of significant American communication events.

IPCO 405. Semantics and Speech Communication (4) III. Relationships between symbols, images, and reality as reflected in speech communication behavior.

IPCO 406. Topics in Interpersonal and Public Communication (4) I, II, III. Selected topics or subject areas within field of communication, such as male-female communication in marriage, legal speaking, communication with elderly. May be repeated.

IPCO 410. Communication and Aging (4) II. Communication problems associated with the aging process; emphasis on methods of aiding the elderly communicate effectively in social situations and assert themselves under a variety of life conditions.

IPCO 469. Communication Internship (1-16) I, II, III, IV. Supervised field experience in communication. Contract-based study of communication principles and practices as intern in public or commercial agency. Student must be recommended by adviser and approved by director of IPCO internship program. Open only to students in Bachelor of Arts in Communication degree program. Graded S/U.

IPCO 490. Problems in Interpersonal and Public Communication (1-5) I, II, III. For advanced student who wishes to do intensive study in rhetoric, public address, or communication studies, independently or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

Radio-Television-Film (RTVF)

RTVF 255. Introduction to Broadcasting (4) III. Survey of broadcasting industry in America. No prerequisites. Intended for majors.

♦ **RTVF 260. Radio and Television Broadcasting** (4) I, II, III. Functions and effects of electronic media for individual and society.

RTVF 261. Understanding Movies (4) I, III. Film as art. Essential elements of film; editing, camera work, sound and composition explored in some classic motion pictures. Various approaches to looking at movies and writing about them.

♦ **RTVF 262. Introduction to Broadcast Announcing** (4) I, II, III. Styles and basic principles and practices of announcing; articulation, vocabulary, and pronunciation.

RTVF 263. Introduction to Television Program Production (4) I, II, III. Basic theory for use of studio facilities in program production situations; basic experience in operating cameras, film chains, microphones, film inserts and music; theory and practice of producing and directing programs. Laboratory hours.

RTVF 264. 8mm Film Making (4) I, II, III. Basic techniques of 8mm motion picture photography. Understanding of lens, film, and camera characteristics; lighting, camera operation, and editing. Student furnishes camera and some materials.

RTVF 360. Procedures of Audience Measurement (4) II. Audience rating systems, significance and design. Aspects of broadcasting audience analysis; questionnaire design, sampling strategies, computer data analysis and presentation of results.

RTVF 361. Radio Writing and Production (4) I, II, III. Theories and processes of writing for radio: opportunities for specialization in selected program types; commercials, interviews and documentaries, special events, and sports. Laboratory hours. Prerequisite: RTVF 262 or equivalent experience.

RTVF 364. Producing and Directing for Television (4) I, II, III. Theories and processes of producing, writing, and directing television program including film and portable video elements; opportunities for specialization in selected program types—news and public affairs, drama, documentary, variety, instructional. Laboratory hours. Prerequisite: RTVF 263 or equivalent experience and permission of RTVF adviser.

RTVF 365. Broadcast History (4) II. Current U.S. broadcasting with view of antecedents in regulations, economics, programs, audiences, stations, networks, technology, and employment. Prerequisite: eight hours of RTVF.

RTVF 366. Processes and Effects of Mass Communication (4) III. Mass communication process and its effects, including topic legitimization, gatekeeping, social impact.

RTVF 368. Radio Workshop (2) I, II, III. Development of program ideas through all stages of planning, writing, directing, and selling. Individual program projects for possible use on WBGU or WFAL. Students working for WBGU or WFAL may receive up to four hours credit. May be repeated to six hours. Prerequisite: RTVF 361.

RTVF 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser.

RTVF 460. Freedom and Responsibility in Broadcasting (4) III. Proper balance between broadcaster's freedom of speech and accountability to public in free society; regulation, self-regulation and social responsibility; role of Federal Communication Commission.

RTVF 464. 16mm Film Making (4) I, II. Concepts, theories, and mechanics of film production; applications of cinema to television news, documentaries, informational presentations, and feature and art film production. Lectures and laboratory. Prerequisites: RTVF 264 or JOUR 306 or VCT 282; and permission of instructor.

RTVF 465. Patterns of Programming in Radio and Television (4) I. Scheduling of broadcast programs; theories and practices in creating program schedules for radio/TV stations; audience research and influences on programming decisions.

RTVF 466. History and Criticism of Film (4) II. Historical development of theatrical, documentary, and avant-garde films. Function, content, and style of film criticism.

RTVF 468. Television Workshop (4) I, II, III. Production of dramatic and public affairs television programs. Writing, producing, and directing emphasized. May be repeated once. Prerequisite: RTVF 364 or consent of instructor.

RTVF 469. Seminar: Contemporary Aspects of Broadcasting and Film (4). On demand. Investigation and analysis of area of radio, television, and film. Various topics of current concern; public and instructional broadcasting, audience, CATV, political broadcasting, censorship and freedom in film, film movements and styles. May be repeated with permission of adviser to eight hours.

RTVF 489. Internship in Radio-Television-Film (1-8) I, II, III, IV. Supervised field experience in electronic communication. Student must arrange for experience with approval of intern supervisor in advance of registration. May be repeated up to 8 hours. Limited to RTVF majors. Prerequisite: 2.5 overall gpa. Graded S/U.

RTVF 490. Problems in Radio-TV-Film (1-5) I, II, III. For advanced student who wishes to do intensive study in radio, television, or film independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school.

Speech (SPCH)

♦ **SPCH 102. Principles of Speech Communication** (4) I, II, III, IV. Basic principles of interpersonal, small-group, and public communication; field of speech communication, with attention to individual needs.

SPCH 351. Administration of Cocurricular Speech Programs (4) III. Required of all speech majors and minors in College of Education. Techniques for handling secondary cocurricular speech programs such as debate, forensics, and theatre. Field experiences required. Prerequisites for majors: EDCI 372 and IPCO 204 and THEA 241 and THEA 243 and THEA 341.

Theatre (THEA)

♦ **THEA 141. The Theatre Experience** (4) I, II, III. Art of theatre; heritage and contemporary values as humanistic discipline; importance as cultural experience; opportunity for some involvement in theatre experience. For nonmajors only. Not open to those with credit for THEA 145.

THEA 145. Principles of Theatre Art (4) I, II, III. Theatre as art form presented from historical, literary, and production points of view. Only for speech communication majors wishing to receive BA or BAC degrees. Not open to students with credit for THEA 141.

♦ **THEA 146. Dramatic Production** (1-2) I, II, III, IV. Laboratory course for student who participates as performer or technician in University Theatre productions. May be repeated to four hours. Prerequisite: consent of school (theatre program). Graded S/U.

♦ **THEA 202. Oral Interpretation** (4) I, II, III. Logical and aesthetic meaning in drama, prose, and poetry for oral performance; selection of materials for programs; and vocal and physical techniques of performance.

♦ **THEA 241. Principles of Acting** (4) I, II, III. Basic acting techniques; stage movement and speech; principles of imaginative, emotional, and sensory responsiveness. Three two-hour meetings per week.

Technology, School of

Aerotechnology (AERT)

AERT 341. Flight Instruction I (2) I, II, III, IV. Beginning course for students desiring private pilot's license. Theory of flight, aircraft systems, aeronautical chart interpretation, communication procedures, weight and balance, airports, meteorology, Federal Aviation Regulations, air traffic control.

AERT 342. Flight Instruction II (2) I, II, III, IV. Continuation of AERT 341. Radio navigation, Airman's Information Manual, flight computer, medical factors, cross country flying, and FAA examinations. Upon completion of course students eligible to take FAA written examination for private pilot. Prerequisite: AERT 341.

AERT 343. Flight Instruction III (2) I, II, III, IV. Completion of work for private pilot certificate. Familiarization with airplane and its control in all flight situations and maneuvers necessary for solo flight; basic instrument and cross country flying experience. Includes 15 hours of solo and 20 hours of dual instruction. Private pilot's license must be obtained to receive credit for course. Additional fees arranged with flight director.

AERT 344. Commercial Flight Instruction I (3). On demand. Advanced theory and principles of commercial aviation requirements; preparation for FAA written examination for Commercial Pilot Certificate.

AERT 345. Commercial Flight Instruction II (3). On demand. Continuation of AERT 344. Solo and dual aerial instruction necessary for qualification for FAA Commercial Pilot Certificate. Additional fees arranged with flight instructor.

AERT 401. Flight Instructor (Airplane) (3). On demand. Prepares experienced pilot for FAA Flight Instructor Certificate (Airplane); approximately 25 hours of dual flight instruction and 40 hours of ground school. Credit dependent on student receiving FAA Certified Flight Instructor rating. Prerequisite: Commercial Pilot's Certificate.

AERT 402. Instrument Ground School (4). On demand. Ground school instruction required by FAA as preparation for FAA written examination for instrument rating.

AERT 403. Instrument Flight Instruction (2). On demand. Instrument flight instruction as required by FAA as preparation for instrument rating.

AERT 490. Problems In Aerotechnology (1-5). On demand. For advanced students wanting to conduct intensive study of selected problems in aerotechnology. Prerequisite: consent of school.

Construction Technology (CONS)

CONS 235. Construction Technology (4) I, II, III, IV odd numbered years. Construction industry; residential, commercial, industrial, and civil areas. Codes; plans, specifications; construction methods and materials; methods of project control.

THEA 395. Workshop on Current Topics (1-5). On demand. Intensive educational experience on selected topics. Typically, an all-day or similar concentrated time format. Requirements usually completed within time format. May be repeated if topics differ, on approval of adviser.

THEA 443. Playwriting (4) II. Writer's workshop involving creation of original play for stage or television. Discussion of process of playwriting. May be repeated.

THEA 444. Fundamentals of Scene Design (4) I. Designing for stage; dramatic action of script as organic element in design; effects of line, color, and mass on setting, decor, and lighting in enhancing action. Prerequisite: THEA 243 or consent of instructor.

THEA 446. Summer Theatre Performance (1-9) IV. Intensive laboratory work in study, preparation, and development of roles. Particular problems of performance in summer theatre. Prerequisite: consent of school.

THEA 447. Theatre Styles (4). Selected period and modern theatrical styles. Historic, philosophic, and aesthetic bases of each style; relationship of each style to other art forms; and implications of each style for contemporary theatre.

THEA 448. Summer Theatre Production (1-9) IV. Intensive laboratory work in scenery construction and painting, stage lighting, organization, and operation of backstage crews and technical theatre. Particular problems of technical production in summer theatre. Prerequisite: permission of school.

THEA 449. Contemporary Issues in Theatre (3) I. Seminar for advanced students. Specific topics vary and depend on current trends in world theatre as identified by students and faculty members. Prerequisite: consent of instructor.

THEA 450. Summer Theatre Management (1-9) IV. Intensive laboratory work in various aspects of theatre management: publicity, box office, house management, public relations. Particular problems of management of summer theatre. Prerequisite: consent of school.

THEA 489. Theatre Internship (1-16) I, II, III, IV. Supervised field experience in theatre. Contract-based study of theatre principles as intern in public or theatre commercial company. Student must be recommended by adviser and approved by director of theatre program unit. Open only to students in Bachelor of Arts in Communication degree program.

THEA 490. Problems In Theatre (1-5) I, II, III. For advanced student who wishes to do intensive study in theatre, independently, or in conjunction with courses regularly offered. May be repeated. Prerequisite: consent of school (theatre program).

◆ **THEA 243. Stagecraft** (4) I, II, III. Theories and techniques of designing, building, and painting stage settings; organization and operation of production crews. Laboratory hours arranged.

THEA 302. Advanced Oral Interpretation (5) I, III. Analysis and communication of logical and aesthetic meaning as found in drama and other significant literature. Experimentation with various forms of oral interpretation such as reader's theatre, chorale reading. Emphasis on advanced, individualized work. Prerequisite: THEA 202.

THEA 340. Creative Dramatics (4) I, II, III. Objectives, principles, methods, and laboratory experience in guiding informal dramatics for preschool, elementary, and secondary school children, as well as for recreation programs. Creative approach to rhythmic movement, pantomime, dramatic play, language development, storytelling, and story dramatization.

THEA 341. Directing (4) I, II, III. Theory and technique of play direction: Laboratory hours arranged. Prerequisites: THEA 141 or THEA 145, and THEA 241 and THEA 243 or consent of instructor.

THEA 342. Advanced Directing (4) II. THEA 341 continued. Each student directs at least one short play or series of short scenes. Prerequisite: THEA 341. Laboratory hours arranged.

THEA 343. Stage Lighting (4) I. Theories and techniques of lighting stage productions; lighting instruments and equipment. Three hours lecture, one hour laboratory per week.

THEA 344. Intermediate Acting (4) II, III. Study and experimentation in preparation of roles. Three two-hour meetings per week. Prerequisite: THEA 241 or consent of instructor.

THEA 345. Advanced Acting (4). Extensive work in speech and movement; individual acting problems through scene work. Three two-hour meetings per week. Prerequisite: THEA 241 and THEA 344 or consent of instructor.

◆ **THEA 346. Dramatic Production** (1-2) I, II, III, IV. Same as THEA 146 except for juniors and seniors. May be repeated to four hours. Prerequisite: consent of school (theatre program). Graded S/U.

THEA 347. Major Periods of Theatrical History (4) II. History of theatrical production (stage and auditorium architecture, machinery, scenery, lighting, acting, and costuming) in selected periods from primitive times to present.

THEA 348. Literature of Theatre (4) I. Major dramas, dramatists, dramatic criticism, and dramatic theory from Greeks to present.

THEA 349. Theatrical Costuming (4) III. Basic principles of costuming for the stage; responsibilities of costumer, development of design concepts; use of historic, stylistic, and fantasy elements.

THEA 350. Drama of Racial Conflict (4) I, III. Study of plays which project racial conflict as major theme; their styles, dramatic purposes, and socio-political implications; through readings, performances and discussion.

THEA 352. Staging the Musical (4) I alternate years. Theory and techniques; individual problems of staging dance, musical, and nonmusical scenes. Laboratory hours arranged.

THEA 353. History of Musical Theatre (4) III alternate years. Major composers, librettists, directors, and choreographers. Relationship between script, score, and production.

CONS 306. Light Building Construction I (4) I, II, IV. Methods and procedures for construction of residential and light commercial buildings; prefab and assembly-line housing, building codes, and FHA specifications. Prerequisites: CONS 235 and DESN 301.

CONS 307. Land Planning and Development (4) I, II, IV even numbered years. Land planning, zoning, and community and sub-division design; sub-surface utility systems, transportation systems, and other environmental considerations. Prerequisite: CONS 235.

CONS 318. Surveying Practice (5) III, IV. On demand. Methods and procedures; field and office procedures for recording and reduction of data. Surveying applications to construction. Prerequisite: competency with high school algebra and trigonometry.

CONS 335. Commercial and Industrial Construction (4) I, II, IV odd numbered years. Basic design considerations and methods and materials used in construction of commercial and industrial complexes. Foundations and sitework; soils and concrete. Prerequisites: CONS 235 and DESN 301.

CONS 337. Heating, Ventilating, and Air Conditioning Systems (4) II. Mechanical systems that provide heating, ventilation, air conditioning cooling for building and production processes. Experience with conventional and solar mechanical systems; determining losses, make-up; system sizing, control. Methods, materials, and problems encountered in installing mechanical systems stressed. Prerequisite: TECH 191 or CONS 235 or permission of instructor.

CONS 406. Light Building Construction II (4) II, IV even numbered years. Advanced course in building construction; necessary materials, methods, and devices used in interior finishing of both residential and commercial facilities. Prerequisite: CONS 306 or CONS 335 or consent of instructor.

CONS 407. Civil Construction (4) III, IV even numbered years. Materials and methods of civil construction; its needs, planning, and development through completion of specific projects. Prerequisite: CONS 235.

CONS 425. Construction Technology (4) I, II, III, IV odd numbered years. Introduction to construction industry; residential, commercial, industrial and civil areas; codes; plans; specifications; construction methods and materials; elements of project control. For transfer students only. Obtain permission of department.

CONS 435. Commercial and Industrial Construction II (4) II, IV odd numbered years. Advanced course in basic design considerations and methods and materials used in construction of reinforced concrete and steel frame buildings. Prerequisite: CONS 335.

CONS 437. Construction Equipment (4) I, IV odd numbered years. Equipment fundamentals as related to construction operations. Ownership and operating costs and productivity of major construction equipment; frequent downtime items. Three one-hour lectures and one three-hour laboratory. Prerequisites: TECH 191 and CONS 235.

CONS 439. Estimating and Cost Control (4) II, IV. On demand. Designed to give basic tools needed to take off and price typical construction project. Final bid document including all materials, labor, equipment and overhead costs, and profit margin prepared for actual project. Three one-hour lectures and one three-hour laboratory. Prerequisite: CONS 335.

CONS 440. Construction Contracting (4) I, IV. On demand. Project scheduling and control, bidding theories, safety in construction industry, construction contracts. Two two-hour lectures. Prerequisite: 20 hours of 300/400 level courses in CONS technology and senior standing.

CONS 490. Problems in Construction Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in construction technology. Prerequisite: consent of school.

Design Technology (DESN)

◆ **DESN 104. Design and Engineering Graphics I** (4) I, II, III, IV. Design as process and engineering graphics as vehicle to communicate problem solutions. Design analysis, sketching, and instrument drawing applied to design problems involving industry and technology. Two one-hour lectures and one two-hour and one three-hour laboratory. (At Firelands, two hours of lecture, six hours of laboratory.)

† **DESN 201. Mechanical Design I** (4). Design and selection of mechanical elements, fasteners, power transmission devices, hydraulic systems, and tools and dies. Standard manuals, commercial catalogs, and technical publications utilized. Two hours of lecture, six hours of laboratory. Prerequisite: PHYS 214.

† **DESN 202. Mechanical Design II** (4). Continuation of DESN 201. Consideration of economy, loading conditions, stresses, deformation, fits and finishes in design. Two hours of lecture, six hours of laboratory. Prerequisite: PHYS 214.

◆ **DESN 204. Design and Engineering Graphics II** (5) II, IV odd numbered years. Application of design analysis and engineering graphics to problems dealing with mechanical/product design. Production of complete sets of working drawings to communicate problem solutions to those involved with production of product or system. Jig and fixture, tool and die design. Developments and schematic graphic techniques. Two one-hour lectures and two three-hour laboratories. (At Firelands, three hours of lecture, six hours of laboratory.) Prerequisite: DESN 104.

† **DESN 205. Tool, Die, Jig, and Fixture Design** (5). Importance and economics of tooling designed for mass production; topics include cutting tool design; drilling, milling, welding, inspection of fixtures; standard drill jigs; simple dies. Three hours lecture, six hours laboratory.

† **DESN 210. Fluid Systems** (3). Basic components of hydraulic and pneumatic systems as used for industrial power control and transmission. Two hours of lecture, three hours of laboratory. Prerequisite: PHYS 214 or permission of instructor.

◆ **DESN 243. Strength of Materials** (4) I, III, IV. On demand. Simple and combined stresses, deformation, shear, torsion, and deflection of machine parts and structural members. Basic foundation in vector algebra recommended. Three lecture-recitations and one three-hour laboratory. (At Firelands, prerequisite is PHYS 214.)

DESN 301. Architectural Graphics (5) I, II, III, IV. Architectural design and construction; development and use of elevation, plan, detail, and perspective drawings in planning and designing residential, business, and industrial structures. Two one-hour lectures and two three-hour laboratories. Prerequisite: DESN 104 or permission of instructor.

DESN 304. Engineering Graphics — Design I (4) I even numbered years, IV odd numbered years. Engineering graphics principles as in design of structures, machines, production systems. Standard manuals and commercial catalogs used. Prerequisite: permission of instructor.

DESN 305. Technical Illustration (4) III, II, IV even numbered years. Technical illustration for design presentation, assembly, repair, and advertising. Variety of equipment, materials, and techniques to accomplish various industrial purposes. Two one-hour lectures and one two-hour and one three-hour laboratory. Prerequisite: DESN 104 or permission of instructor.

DESN 314. Design and Engineering Graphics I (4) I, II, III, IV. Design as process and engineering graphics as vehicle to communicate problem solutions. Design analysis, sketching, and instrument drawing applied to design problems involving industry and technology. Two one-hour lectures and one two-hour and one three-hour laboratory. For transfer students only. Obtain permission of department.

DESN 336. Structural Design and Construction (5) I even numbered years, IV on demand. Designed to give necessary tools to understand and deal with basic building design problems as viewed by constructor. Steel, concrete, and timber problems and projects completed by students. One three-hour lecture, one two-hour and one three-hour laboratory. Prerequisite: DESN 243 or understanding of basic mathematics and engineering mechanics.

DESN 404. Computer Graphics in Design (4) II even numbered years, IV on demand. Study and application of computer graphics system. Use of interactive methods for design purpose, with plotted or video output. Programming sub-routines for graphs, two and three dimensional views, and surface generation.

DESN 434. Design and Engineering Graphics II (5) II, IV odd numbered years. Application of design analysis and engineering graphics to problems dealing with mechanical-product design. Producing complete sets of working drawings to communicate problem solutions to those involved with production of product or system. Jig and fixture, tool and die design. Developments and schematic graphic techniques. Two one-hour lectures and two three-hour laboratories. Prerequisite: DESN 104. For transfer students only. Obtain permission of department.

DESN 436. Planning and Design of Industrial Facilities (4) II even numbered years, IV on demand. Planning, estimating, design, and modeling of industrial facilities with consideration of management, personnel, production, aesthetics, and environment.

DESN 450. Architectural Graphics (4) I, II even numbered years. Man-made environment considered through advanced problems in architecture and related graphics of presentation.

DESN 452. Design in Industry (4) III, IV odd numbered years. Systems approach applied to solution of one and two dimensional product design problems; emphasis on feasibility in production and use.

DESN 455. Engineering Graphics (4) II even numbered years, IV odd numbered years. Problems in engineering design in such areas as human factors, value engineering, CPM/PE, which require advanced engineering graphics for solution.

DESN 490. Problems in Design Technology. † On demand. For advanced students wanting to conduct intensive study of selected problems in design technology. Prerequisite: consent of school.

Electronic Technology (ET)

- † **ET 100. Energy Codes and Regulations** (2). Various federal, state, and local codes which pertain to energy use and conservation.
- † **ET 147. Electricity** (5). Electron theory; DC and AC electrical units and concepts; circuit components; RLC circuits; power circuit concepts; 3 phase electric power; introduction to use of electrical instruments. Three hours of lecture, six hours of laboratory. Prerequisite: MATH 110 or equivalent.
- † **ET 148. Electronics** (5). Branch of technology which deals with use of electronic devices to process, store, and transmit information.
- † **ET 201. Energy Production and Conservation Systems** (4). Principles, major elements, efficient operation of each part of a power plant system. Three hours lecture, three hours laboratory. Prerequisite: ET 147 or consent of instructor.
- † **ET 241. Electricity and Electronics** (3). Topics in electricity and electronics of interest to students majoring in related technical areas; basic electricity, communication, power systems, and instrumentation. Two hours of lecture, three hours of laboratory. Prerequisite: AMS 111.
- † **ET 244. Communication Circuits** (5). Fundamental communication circuits and amplifiers; amplifier design, components and applications, oscillators, communication components, and principles of receivers and transmitters. Four hours of lecture, three hours of laboratory. Prerequisite: ET 245 or permission of instructor.
- † **ET 245. Communications Systems** (3). Applications of principles of communications circuits to large and complex systems. Techniques of transmission and radiation of electromagnetic energy applied to pulse, television, and microwave systems. Two hours of lecture, three hours of laboratory. Prerequisite: AMS 111 or equivalent.
- † **ET 247. Electrical Measurements and Instrumentation** (5). Electrical measurement and instrumentation devices, transducers, and elements; principles underlying their design, use, and relationships. Three hours of lecture, six hours of laboratory. Prerequisite: ET 148.
- † **ET 248. Industrial Equipment and Controls** (5). Automation and industrial control principles; discussion and application of typical devices such as time control switches, motor controls, servomechanisms, photo-electric switches. Three hours of lecture, six hours of laboratory. Prerequisite: ET 247 or permission of instructor.
- † **ET 249. Digital Electronic Components and Systems** (4). Basic digital system logic analysis and synthesis techniques; number systems and codes; Boolean algebra and circuit minimization techniques. Characteristics of modern digital integrated circuit components (TTL, CMOS, 1'L, ECL). Four hours of lecture and three hours of laboratory.
- † **ET 288. Field Experience** (2). Individual observation and participation at various levels and in representative programs in career and technology education. Graded S/U.

ET 289. Cooperative Internship—Basic. (4). Work and study in business, industry, service, or government agency in department-approved 12-week full-time position related to student's intended area of concentration. Prerequisite: consent of department. Graded S/U.

† **ET 290. Experimental Studies in Industrial Education and Technology** (1-4). Experimental study projects, seminars, and workshops dealing with topics in industrial education and technology.

ET 291. Energy, Power, Instrumentation and Control-Cybernetics (4) I, II, III, IV odd numbered years. Cybernetics; systems logic, instruments, sensors, control elements, and process regulation. Two one-hour lectures and two two-hour laboratories. Prerequisite: TECH 191.

ET 300. Electric Machinery and Controls (4). Odd numbered years; IV on demand. Electric motors, generators, assorted controls; operating characteristics, selection, testing of direct current, single and three-phase machinery. Three one-hour lectures, one three-hour laboratory. Prerequisite: ET 291.

ET 347. Electricity (5) I, IV even numbered years. Concepts of alternating and direct current including circuits. Circuit components, power generation, meters, and test equipment. One two-hour lecture and two three-hour laboratories. Prerequisite: TECH 191 or permission of instructor.

ET 348. Electronics (5) II odd numbered years, IV even numbered years. Electronic circuits both analog and digital plus semiconductors. Application of power supplies, amplifiers, oscillator, and digital gates to communication instrumentation and process control. Three-hour lecture and four-hour laboratories. Prerequisite: ET 347 or equivalent.

ET 357. Electrical Power Transmission (4) II odd numbered years, IV even numbered years. Power converters, polyphase distribution system including conductors, transformers, voltage regulation, protection, control, phasing, and metering. Electrical codes, methods, and materials used in electric installation; problems in electrical construction work. Three one-hour lectures, two one-hour and two two-hour laboratories. Prerequisite: TECH 191.

ET 358. Digital Electronics (5) Even numbered years; IV on demand. Digital integrated circuit devices with medium and large scale applications; digital families, their functions, use of specification sheets, discussion of digital system. Three one-hour lectures, two two-hour laboratories.

ET 441. Instrumentation (4) II even numbered years; IV on demand. Industrial instrumentation; measuring of mechanical, fluid, and electric phenomenon, transducers, recorders, indicators and controllers. Principles underlying their design, and applications. Three one-hour lectures, two one-hour and one two-hour laboratories. Prerequisite: ET 291 or consent of instructor.

ET 442. Digital Computer Analysis (5) Even numbered years; IV on demand. Organization and construction of mini-micro computers, machine language programming; interfacing which includes developing logic design, selection of integrated circuits, assembly, testing; system diagnostic testing procedures. Three one-hour lectures, two two-hour laboratories. Prerequisite: ET 358 or equivalent.

ET 443. Solid State Devices (4) III even numbered years, IV on demand. Semiconductor devices (operational amplifiers, MOS memories, SCR, unijunction, and FET transistors); theory of operations, manufacturing procedures, parameter specifications, performance, testing, and applications. Three one-hour lectures, two one-hour and one two-hour laboratories. Prerequisite: ET 348.

ET 453. Digital Computer Process Control (4) III odd numbered years, IV on demand. Industrial process control utilizing mini and/or micro computers; organization and operation of computer, various process control modules (A/D, D/A), signal conditioning and converting, and design of process control system. Three one-hour lectures and two two-hour laboratories.

ET 490. Problems in Electronic Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in electronic technology. Prerequisite: consent of school.

ET 491. Energy, Power, Instrumentation and Control — Cybernetics (4) I, III, IV odd numbered years. Systems logic instruments, control, and process regulation. Two one-hour lectures and two two-hour laboratories. Prerequisite: TECH 191. For transfer students only. Obtain permission of department.

Industrial Environment Technology (ENVR)

ENVR 421. Industrial Pollution Control (4) II, IV on demand. Air and water pollution control regulations as they apply to industry; functioning and selection of parameters of industrial pollution control equipment and selected case studies.

ENVR 490. Problems In Industrial Environment Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in industrial environment technology. Prerequisite: consent of school.

Industrial Education (IE)

IE 252. Elements of Instruction (4). Models of instruction as related to learner and functions and purposes of specialized career and technology education programs on all educational levels. C/F hrs: 25.

IE 288. Field Experience (2) I, II, III, IV. Individual observation and participation at various levels and in representative programs in career and technology education. C/F hrs: 35. Graded S/U.

IE 316. Career and Technology Education in Elementary Schools (4) I, II, III, IV on demand. Technology in American enterprise system; application of career development theory through construction activities and relationships to subject areas in elementary curriculum. Two one-hour lectures and one two-hour and one three-hour laboratory. C/F hrs: 30.

IE 352. Instructional Scope and Sequence (4) Design and implementation of instructional systems including performance objectives, appropriate content, teaching-learning strategies, and evaluation in specialized career and technology education programs on all educational levels. Prerequisite: IE 252. C/F hrs: 30.

IE 428. Development of Training Programs (4) II even numbered years, III odd numbered years, IV on demand. Design production and evaluation of training programs for industry and business. Task analysis work design, and cost analysis in development of training programs.

IE 447. Teaching Manufacturing (2) III. Integration and use of principles developed in previous methods courses and laboratory settings; selection, organization, adaptation, and use of instructional materials or curriculum projects related to manufacturing. Prerequisite: at least 8 credit hours in manufacturing. C/F hrs: 10.

IE 448. Teaching Construction (2) III. Integration and use of principles developed in previous methods courses and laboratory settings; selection, organization, adaptation, and use of instructional materials or curriculum projects related to construction. Prerequisite: at least 8 credit hours in construction. C/F hrs: 10.

IE 449. Organization and Administration (4) III. Financial and business procedures; program, laboratory, and equipment planning; maintenance programs; classroom and laboratory management systems; purchasing, storage, dispensing and inventory control procedures; public relations, cocurricular responsibilities. Prerequisites: IE 352 and EDCO 331. C/F hrs: 35.

IE 462. Career and Technology Education in Elementary Schools (4) I, II, III, IV on demand. Development and evaluation of instructional activities to facilitate career development and understanding of technology among elementary children. Two one-hour lectures, one two-hour and one three-hour laboratories.

IE 470. Coordinating Cooperative Education Programs (4) II odd numbered years, IV on demand. Prepares coordinator of cooperative work education programs in all phases of career and technology education. Readings, discussions, and field experiences designed to develop understanding of various types of cooperative programs, role of coordinator, and related instruction.

IE 490. Problems in Industrial Education (1-5). On demand. For advanced student wanting to conduct intensive study of selected problems in industrial education. Prerequisite: consent of school.

Manufacturing Technology (MFG)

◆ **MFG 113. Materials Processing I** (4) I, II, III, IV, on demand. Processing equipment, methods, operations, procedures, and design utilized in production of nonmetallic products; raw materials sources; methods of conversion and testing. Two one-hour lectures and two two-hour laboratories. (At Firelands, two hours of lecture, six hours of laboratory.)

◆ **MFG 114. Materials Processing I** (4) I, II, III, IV on demand. Material properties, fabricating equipment, and methods and procedures utilized in production of metallic products. Two one-hour lectures, two two-hour laboratories. (At Firelands, two hours of lecture, six hours of laboratory.)

† **MFG 211. Manufacturing Processes II—Forming** (4). Traditional and non-traditional forming processes; spinning, casting, die-casting, forging, and extruding. Two hours of lecture, six hours of laboratory.

† **MFG 212. Manufacturing Processes II—Combining** (4). Traditional joining processes such as electric arc, inert gas, submerged arc, and oxygen-acetylene welding; non-traditional processes such as plasma arc, explosive, laser ultrasonic, and electron beam methods of combining materials. Two hours of lecture, six hours of laboratory.

† **MFG 213. Non-Traditional Manufacturing Processes III** (4). Non-traditional machining processes, including numerical control, EDM, ECM, laser machining, ion machining, and ultrasonic machining. Two hours of lecture, six hours of laboratory.

◆ **MFG 214. Manufacturing Processes** (4) I, III. Processing methods, equipment, tooling, organization, and control employed in production of metallic and nonmetallic products. Two one-hour lectures, two two-hour laboratories. (At Firelands, two hours of lecture, six hours of laboratory.) Prerequisites: MFG 113 and MFG 114.

† **MFG 215. Metallurgy** (4). Basic concepts of physical metallurgy and heat treatment of metals; metal structure, alloys, tempering, tool steels, and powder metallurgy. Two hours of lecture, six hours of laboratory.

† **MFG 216. Metrology** (4). Study of instruments and machines for measuring dimensions and surface finishes of machine parts to meet established standards; concepts and procedures involved in quality control and inspection. Two hours of lecture, six hours of laboratory. Prerequisite: AMS 111 or equivalent.

† **MFG 217. Production Planning and Control** (4). Production activities and problems associated with them; use of case studies and personal experiences of guest speakers.

MFG 311. Machine Tool Processes (5) III, IV on demand. Set-up and operation of precision metal processing machine tools, tool preparation, and numerical control programming. Two one-hour lectures and two three-hour laboratories. Prerequisite: MFG 114.

MFG 321. Casting Processes (4) III even numbered years. Significance and role of foundry operations in industry; pattern making, core making, molding, melting, furnace operation, pouring of metals, and cleaning of castings. Two one-hour lectures and one two-hour and one three-hour laboratory. Prerequisites: MFG 113 and MFG 114.

MFG 323. Wood Processing Technology (5). Advanced wood materials; processing methods and product applications. Two one-hour lectures, and two three-hour laboratories. Prerequisite: MFG 113 or permission of instructor.

MFG 329. Plastics Processing Technology (4) II odd numbered years. Properties, characteristics, and processing methods of plastic materials; study and application of practices in laboratory. Two one-hour lectures and two two-hour laboratories. Prerequisite: MFG 113.

MFG 331. Sheet Metal Forming and Fabrication (4) II odd numbered years. Forming and fabrication methods employed in sheet metal industries, materials characteristics, and tool and machine processes. Two one-hour lectures and two two-hour laboratories. Prerequisite: MFG 114.

MFG 333. Materials Processing I (4) I, II, III, IV on demand. Processing equipment, methods, operations, procedures, and design utilized in production of nonmetallic products; raw material sources; methods of conversion and testing. Two one-hour lectures, two two-hour laboratories. For transfer students only. Obtain permission of school.

MFG 334. Materials Processing II (4) I, II, III, IV on demand. Material properties, fabricating equipment, and methods and procedures used in production of metallic products. Two one-hour lectures, two two-hour laboratories. For transfer students only. Obtain permission of school.

MFG 338. Materials and Metallurgy (4) III odd numbered years, IV alternate years. Metallurgical structure and its effects on properties of ferrous and nonferrous metals and alloys. Properties of metallic and nonmetallic materials that effect their usage in industrial products. Prerequisites: MFG 113 and MFG 114.

MFG 361. Welding (4) I, III, IV on demand. Welding processes in joining metals, strength of materials in welded joints, technological developments in welding industry and welded materials. Two one-hour lectures, two two-hour laboratories. Prerequisite: MFG 114 or consent of instructor.

MFG 424. Manufacturing Processes (4) I, III. Processing methods, equipment, tooling, organization, and control employed in production of metallic and nonmetallic products. Two one-hour lectures, two two-hour laboratories. Prerequisite: MFG 113 and MFG 114. For transfer students only. Obtain permission of school.

MFG 426. Quality Assurance (4) I odd numbered years, IV on demand. Use and selection of inspection equipment, planning and controlling of quality at strategic points in manufacturing process, and assurance of receiving, fabricating, and shipping acceptable materials. Prerequisites: MFG 214 and MATH 115, or consent of instructor.

MFG 427. Work Measurement and Analysis (4) I even numbered years, IV on demand. Design and measurement of work and techniques of setting work standards to effectively use tools, equipment, and manpower. Work measurement and application of principles of motion economy in practical situations. Prerequisite: MFG 214 or consent of instructor.

MFG 451. Casting Processes (4) III even numbered years. New and production oriented model-making, pattern-making, mold-building, and casting processes and materials. Prerequisite: MFG 321.

MFG 458. Machine Tool Processing (4) II even numbered years, IV on demand. Advanced precision metal machine tool processes; production machines and related tooling problems. Prerequisite: MFG 311.

MFG 459. Ceramics Processing Technology (5) III even numbered years. Processing methods utilized in relationship with inorganic, non-metallic materials. Raw materials, methods of conversion, production applications, and testing and quality control procedures. Two one-hour lectures and two three-hour laboratories. Prerequisite: MFG 113.

MFG 461. Sheet Metal Forming and Fabrication (4) on demand. Advanced sheet-forming processes; production and tooling techniques and problems. Prerequisite: MFG 331 or permission of instructor.

MFG 463. Welding Processes (4) II, IV on demand. Welding of metals using oxyacetylene, electric arc, MIG and TIG processes including welding metallurgy; weld testing; design and construction of welded items; new technology development in welding. Skill emphasis on horizontal, vertical, and overhead welding. Prerequisite: MFG 361.

MFG 490. Problems in Manufacturing Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in manufacturing technology. Prerequisite: consent of school.

Technology, General (TECH)

- TECH 121. Industrial Mathematics** (5) I, II, III, IV on demand. Mathematics as applied in industry and technology. Problems in geometry, algebra, trigonometry, and calculus.
- ◆ **TECH 152. Introduction to Technology — The Man-Made World** (3) I, II, III, IV on demand. Through active participation in variety of technology problem-solving activities, students introduced to principles and developments which consider technology as shaper of man-made world, man's career and other roles, and future.
- ◆ **TECH 191. Energy, Power, Instrumentation, and Control—Mechanization** (4) I, II, III, IV alternate years. Mechanization; energy conversion into useful electrical, fluid, or mechanical power and associated transmission, instrumentation, and controlling devices. Research and experimentation requiring analysis and diagnosis of automated systems. Two one-hour lectures and one two-hour and one three-hour laboratory. (At Firelands, two hours of lecture, six hours of laboratory.)
- † **TECH 218. Management and Supervision** (3). Responsibilities of management and supervision within manufacturing industries; organization, duties and responsibilities, human relations, training, promotion, quality and quality control, and management-employee relations.
- TECH 223. Mechanical Power Transmission** (4) III alternate years. Mechanical drive systems and applications; design, operation, maintenance of mechanical power systems used in industry. Three one-hour lectures, one two-hour laboratory. Prerequisite: TECH 191.
- TECH 289. Cooperative Internship-Basic** (5) I, II, III, IV. Work and study in business, industry, service or government agency in department-approved 12-week full-time position related to student's intended area of concentration. Prerequisite: consent of department. Graded S/U.
- TECH 291. Student Intern Program** (4). Ten weeks of paid field work in engineering technology under supervision of regulatory agency or private industrial concern. Prerequisite: consent of instructor.
- TECH 313. Handicrafts** (4) I, II, IV on demand. Creative possibilities inherent in wide variety of materials and tool operations. Development of lifetime recreational interests and abilities to direct activities in schools, camps for handicapped, and adult education. Two one-hour lectures and one two-hour and one three-hour laboratory.
- TECH 322. Introduction to Technology — Man-Made World** (3) I, II, III, IV on demand. Through active participation in variety of technology problem-solving activities, students introduced to principles and developments which consider technology as shaper of man-made world, man's career and other roles, and future. For transfer students only. Obtain permission of department.
- ◆ **TECH 323. Fluid Power Transmission** (4) II alternate years. Pumps, motors, valves, circuits, applications of hydraulic and pneumatic power systems; design, operation, maintenance of fluid power systems used in industry. Two one-hour lectures, three two-hour laboratories. Prerequisite: TECH 191.
- ◆ **TECH 388. Field Studies in Industry** (3) IV. Study of wide range of industries through visits and observation; industrial organization, labor practices, raw materials, manufacturing processes, and interrelationships of practices, products, technologies, and human problems.
- TECH 389. Cooperative Internship-Intermediate** (5) I, II, III, IV. Work and study in business, industry, service or government agency in department-approved 12-week full-time position related to student's area of concentration. May be repeated to 10 hours. Prerequisite: TECH 289. Graded S/U.
- TECH 391. Internal Combustion Engines** (5) I, II, III, IV on demand. Engine fundamentals and basic thermal cycles used to convert heat energy into mechanical power. Analysis, diagnosis, performance testing, and repair procedures applied to engines. Two one-hour lectures and two three-hour laboratories. Prerequisite: TECH 191 or consent of instructor.
- TECH 392. Energy, Power, Instrumentation, and Control — Mechanization** (4) I, II, III, IV alternate years. Mechanization; energy conversion into useful electrical, fluid or mechanical power and associated transmission, instrumentation and controlling devices. Research and experimentation requiring analysis and diagnosis of automated systems. Two one-hour lectures and one two-hour and one three-hour laboratory. For transfer students only. Obtain permission of department.
- TECH 454. Energy Conversion and Power Transmission** (4) III odd numbered years, IV on demand. Existing and developing systems of energy conversion and power problems of fuel efficiency, pollution, potential, maintenance and application.
- TECH 457. Handicrafts for Recreation, Therapy, and Teaching Professions** (4) I, II, III. Creative possibilities using various materials and tools in development of personal lifetime recreational interests; skill in directing others in such activities. Prerequisite: TECH 313 or permission of instructor.
- TECH 489. Cooperative Internship — Advanced** (5) I, II, III, IV. Work and study in business, industry, service, or government in department-approved 12-week full-time position related to student's area of concentration. Prerequisite: graduate standing or 15 hours credit in TECH 289 and TECH 389 and consent of department. Graded S/U.
- TECH 490. Problems in Technology.** On demand. For advanced students wanting to conduct intensive study of selected problems in technology. Prerequisite: consent of school.

Visual Communication Technology (VCT)

- VCT 203. Visual Communication Technology** (4) I, II, III, IV. Visual communication theory and processes; television production, film making, continuous tone photography, slide presentations, multimedia production, and image transfer systems. Two one-hour lectures and two two-hour laboratories.
- ◆ **VCT 208. Graphic Communications** (4) I, II, III, IV. Overview of major printing processes; concentration in offset lithography; line-photography, study and experiences in image design, image assembly, photo conversion, image carrier preparation, and image transfer. Two one-hour lectures and two two-hour laboratories. (At Firelands, two hours of lecture, six hours of laboratory.)
- VCT 209. Screen Process Printing** (4) I, III, IV. Hand cut and photographic screen process image conversion; single and multiple color process. Two one-hour lectures, two two-hour laboratories. Prerequisite: VCT 208 or consent of instructor.
- VCT 282. Photography I** (4) I, II, III, IV. Introductory course on basic camera and darkroom skills; film processing, printing techniques; camera skills and operation. Two one-hour lectures and two two-hour laboratories.
- VCT 308. Photo Offset Printing I** (4) I, IV on demand. "Prepress" areas of graphic reproduction. Art preparation techniques, typography, line and halftone photography, exposure calibrating, and tone reproduction printing requirements. Cold type composition, spacing and copyfitting. Two one-hour lectures, one two-hour and two two-hour laboratories. Prerequisite: VCT 208 or consent of instructor.
- VCT 309. Photo Offset Printing II** (4) II, IV. Stripping, imposition procedures, and platemaking; offset lithographic printing press theory, maintenance, and operation. Ink and paper in relationship to offset presswork. Theory and practical experience in four-color-process reproduction. Two one-hour lectures and one two-hour and two two-hour laboratories. Prerequisite: VCT 208 and VCT 308.
- VCT 382. Photography II** (4) II, III, on demand. In-depth course; sensitometric characteristics of film, problem solving for specific photo problems, using special techniques to produce better negatives and prints. Two one-hour lectures, two two-hour laboratories. Prerequisite: VCT 282.
- VCT 386. Animation Technology** (4) II, IV on demand. Types and techniques of animation and animated films. Structured experiences in producing simple film and effector animations. Two one-hour lectures and one two-hour and two two-hour laboratories. Prerequisite: VCT 203 or RTVF 264.
- VCT 433. Visual Communication Technology** (4) I, II, III, IV. Visual communication theory and processes; television production, film making, continuous tone photography, slide presentations, multimedia production, and image transfer systems. Two one-hour lectures and two two-hour laboratories. For transfer students only. Obtain permission of instructor.
- VCT 438. Graphic Communications** (4) I, II, III, IV. Major printing processes; focus on offset lithography, line photography, study and experiences in image design and assembly, photo conversion, image carrier preparation, image transfer. Two one-hour lectures, two two-hour laboratories. For transfer students only. Obtain permission of instructor.
- VCT 456. Color Process Photography** (4) III, IV on demand. In-depth study of process photography for reproduction of photographs and illustrations in black and white and color. Halftones, duotones (black and color), mechanical color separation, photographic four-color-separation, color posterization, and color proofing systems. Two one-hour lectures and two two-hour laboratories. Prerequisites: VCT 208 and VCT 308 and VCT 309.
- VCT 460. Photography** (4) IV. Research and experimentation in special effects photography and creative darkroom techniques. Two one-hour lectures and two two-hour laboratories. Prerequisite: VCT 282.
- VCT 465. Photography in Commerce and Industry** (4) II, IV on demand. Advanced camera and lighting techniques, studio and darkroom design and management as applied to commercial and industrial photographic fields. Two one-hour lectures, two two-hour laboratories. Prerequisites: VCT 282 and VCT 382.

VCT 466. Projected Communication (4) III, IV on demand. Communication problem solving through exploration and experimentation in 35 mm slide presentations; techniques in multi-screen, multi-image, and multimedia. Two one-hour lectures; two two-hour laboratories. Prerequisite: VCT 208 and VCT 282.

VCT 467. Visual Communications Technology Synthesis (4) II, III. Techniques of problem solving; aesthetic and technical qualities of presentation. Must be taken with ART 414. Two one-hour lectures. Two two-hour laboratories. Prerequisites: VCT 208 and ART 211 and senior standing.

VCT 468. Video Tape Recording in Visual Communications Technology (4) I, IV on demand. Both 1/2" and 3/4" video tape productions. Television recording theory, production designing, and planning and use techniques with sub-professional equipment. Two one-hour lectures; two two-hour laboratories. Prerequisites: VCT 203 and RTVF 263.

VCT 482. Photography III (4) II, III and on demand. Fundamentals of Zone System and large format photography; focus on learning the structure of Zone System and its application to all areas of photography. Two one-hour lectures, two two-hour laboratories. Prerequisite: VCT 382.

VCT 490. Problems in Visual Communication Technology. On demand. For advanced students wanting to conduct intensive study of selected problems in visual communication technology. Prerequisite: consent of school and instructor.

The Student Code

The Student Code is a product of the representative process. It consists of policies and procedures which have evolved from within the general campus community and those which conform with state and federal law. It recognizes the right of the University to establish standards of performance and behavior basic to its lawful missions, processes, and functions; moreover, it responds to the need for procedural due process in defining the rights and responsibilities of all students of Bowling Green State University. It further recognizes that the University shall conduct its affairs in keeping with the delegation of authority principle as prescribed by Ohio law:

"The General Assembly hereby declares its expectation that the authority of government vested by law in the boards of trustees of state-assisted institutions of higher education shall in fact be exercised by said boards. Boards of trustees may consult extensively with appropriate student and faculty groups. Administrative decisions about the utilization of available resources, about organizational structure, about disciplinary procedure, and about administrative personnel shall be the exclusive prerogative of boards of trustees. Any delegation of authority by a board of trustees shall be accompanied by appropriate standards of guidance concerning expected objectives in the exercise of such delegated authority and shall be accompanied by periodic review of the exercise of this delegated authority to the end that the public interest in contrast to any institutional or special interest shall be served."

This code is issued by the dean of students in accordance with the policies of the University Faculty Senate, the Board of Trustees, and the president of Bowling Green State University.

In accordance with University procedure, the president shall have the final responsibility and authority for the discipline of all students of the University. That responsibility and authority may be delegated by the president to appropriately designated University officials. Duly constituted student judicial bodies and appellate bodies may be authorized to conduct student disciplinary hearings and appeals and to recommend any course of University disciplinary action to the appropriately designated University official(s).

This code may be changed at any time by the Board of Trustees.

Amendments approved by the Board of Trustees August 28, 1971, and September 30, 1977.

I. Definitions

When used in this code:

- A. The term "University" means Bowling Green State University, its main and branch campus.
- B. The term "University property" means all property owned, leased, or on loan to the University.
- C. The term "University premises or University-related premises" means all lands, buildings, and facilities owned, leased or controlled by the University or by fraternities or sororities and affiliated off-campus student residences. (Note: This definition does not include other housing located off University premises.)
- D. The term "student" means any person registered for enrollment in any University course or any person officially enrolled in a University course.
- E. The term "designated University official" means any person employed by the University and authorized by the University to act in a prescribed manner in accordance with the statutes of the Ohio Revised Code applying to Bowling Green State University, the By-Laws and action of the Board of Trustees of Bowling Green State University and the Academic Charter.
- F. The term "member of the University community" means any student, faculty member, University official, or employee of the University.
- G. The term "University document" means any University record, written communication or form.
- H. The term "student publication" means written material, including but not limited to brochures, newspapers, special interest magazines or college or department magazines, edited and published by students for distribution to members of the University community.
- I. The term "student judicial body" means any duly constituted organization authorized to conduct student disciplinary hearings and to recommend any course of University disciplinary action to the appropriate University official(s).
- J. The term "registered student organization" means a group or association of students which has complied with the requirements of registration provided in this Code but does not imply University sponsorship of the organization or its programs and activities.
- K. The term "days" means days classes are in session.

II. Statement of Rights

- A. The University affirms the right of each student to be free from discrimination on the basis of age, race, color, national origin, religious creed, political views, sex, or handicap.
- B. Every student and registered student organization shall have the right to receive a statement of all regulations which directly affect the student and/or student organization.
- C. A student may petition the dean of students or his designee for amendment of the code (see Section X).
- D. The University affirms the right of each student to conduct research and to publish, discuss, and exchange findings and recommendations, except that the University may promulgate rules and regulations related thereto.
- E. Students shall have the right to establish and elect a democratic student government.
- F. Each student shall have the right to petition the appropriate University board for redress of grievances, amendment of University regulations and modification of University policies.
- G. Students shall be secure in their persons, living quarters, papers, and effects from unreasonable, illegal, or unauthorized searches and seizures.
- H. The University affirms the right of students to be members of University and college committees, except that a student may not be a member of a committee which by rule is constituted exclusively of members of the University faculty.
- I. The University recognizes each student's right of freedom of speech, assembly, and association as guaranteed by the Constitution and all provisions of this code shall be construed to be consistent with these rights.
- J. The University recognizes the right of each member of the University community to interview for employment with any organization, firm, corporation, or any other body.
- K. These enumerated rights shall not be construed to deny or disparage other rights of students either as members of the University community or as citizens of the United States of America.

III. Off-Campus Freedoms of Students

A. Exercise of rights of citizenship

College and University students are both citizens of the larger community and members of the academic community. As members of the larger community, students are guaranteed the freedoms of speech,

peaceful assembly, and right of petition granted to all citizens. As citizens of the academic community, students are subject to additional obligations necessary for this membership.

1. A student's intellectual and personal development often grows through the exercise of his or her rights as a citizen in both communities.
2. Faculty members and University officials must insure against the use of University power to curtail this expression.

B. University authority and civil penalties

When a student violates the law through his or her off-campus activities, University officials may apprise him or her of sources of legal counsel and may offer other assistance.

1. Students who violate the law in the course of their off-campus activities will incur penalties prescribed by civil authorities, but University authority will never be used to merely duplicate the functions of general law.
2. The University's special authority will be asserted only where its interests as an academic community are distinctly and clearly impaired.
3. If a student violates University regulations as a result of his or her off-campus activity (regulations concerning class attendance, for example), he or she will be subject to no greater penalty than would normally be imposed.

IV. University Policies and Regulations

A. Policies

1. *Academic honesty policy*
(See Appendix I)
2. *Housing*
 - a. On-campus students have the authority to participate in the creation of all University residence hall policies affecting their personal lives. This authority includes the right to adopt rules and regulations and to impose sanctions for violations. These provisions must not conflict with any specifications of this code, the Residence Hall Manual, or the applicable city, state, or federal codes. (Note: all other general residence hall policies are included in the Residence Hall Manual.)
 - b. Undergraduate students are required to reside in University-owned living units as a condition of enrollment unless they are commuting daily from the homes of their parents, guardians, or spouses, or unless they have attained 90 earned academic hours and/or six quarters of campus residency on or before the first day of classes for fall quarter. The housing acceptance agreement is a contract for the entire academic year. For the purposes of this regulation, a home is defined as the actual and regular place of residence in the community in which the parent, guardian, or spouse is eligible to register to vote. A guardian is defined as a person awarded legal guardianship by a court of competent jurisdiction. A student must be in compliance with the University

Housing Policy as a condition for application for exception from the policy.

3. *Residence hall policy on search of living units*
 - a. All residence hall staff members are authorized to periodically inspect the rooms assigned to them. These inspections are to insure that the occupants are observing the standards of safety and hygiene, the rules and regulations of each hall, and the requirements of pertinent public laws.
 - b. The times for whole house/hall inspections will be posted and at no time during this procedure shall the staff member open desks, bureaus, closets, or examine the personal effects of the residents of the room.
 - c. If a resident adviser learns that a student is allegedly in possession of contraband,* the resident adviser will immediately notify the hall director or assistant hall director and inform him or her of all relevant facts and/or circumstances.
 - d. If the hall director or assistant hall director has reason to believe the allegations, he or she may conduct a search of the premises after obtaining the resident's permission.
 - e. If the student consents to the search, the hall director or assistant hall director shall enter the room and conduct a search for the specific items of contraband. This search shall be conducted in the presence of the room resident and with the assistance of another member of the residence hall staff, according to the procedure mentioned in Section IV A3.
 - f. If the student in question cannot be found, a resident adviser or another person designated by the hall director or assistant hall director will be posted at the door of the student's room until the student returns.
 - g. The hall director will deliver all seized items, together with a written report of the incident to the appropriate authority (area coordinator, director of standards and procedures or Campus Safety and Security).
 - h. If the student refuses to grant permission to search, which is his or her right, the hall director or assistant hall director will order the room cleared of all persons, secure the room, and notify the director of Campus Safety and Security. The Campus Safety and Security director will assume full control and direction of the matter and will obtain a search warrant before entering the room. NOTE: For the purpose of this policy, all small group living unit houseparents will have the same rights as those of a hall director.
4. *Unpaid Accounts*
 - a. Unpaid University accounts may preclude registration for the ensuing quarter. Arrangements for satisfactory settlement of these accounts can be made with the Office of the Bursar.

- b. Students who have checks returned to the bursar's office for insufficient funds will be charged a service fee for each check returned.

B. Regulations

In developing responsible student conduct, disciplinary proceedings play a substantially secondary role to example, counseling, guidance, and admonition. At the same time, the University has a duty and the corollary disciplinary power to protect its educational purpose by setting standards of scholarship and conduct for its students by regulating the use of University facilities. In general, University discipline shall be limited to conduct adversely affecting the University's pursuit of its educational missions.

The following misconduct is subject to disciplinary action and/or criminal prosecution in the civil courts.

1. A student who is found guilty of academic misconduct shall be subject to the maximum penalty of expulsion or any lesser sanction as authorized by the University Policy on Academic Honesty. Academic misconduct, including all forms of academic misconduct wherever committed, is illustrated by but not limited to cases of plagiarism and dishonest practices in connection with examinations. (See Appendix I—University Policy on Academic Honesty.)
2. A student who is found guilty of any of the following acts shall be subject to the maximum sanction of dismissal or any lesser sanction authorized by the Code.
 - a. *Disruption of University authorized activities.*
Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities, including its public service functions or other authorized activities, on University premises or University-related premises.
 - b. *Arrest and conviction for any offense covered by a division of Section 3345.23 of the Ohio Revised Code.*
 - c. *Infliction or threat of bodily harm.*
 - 1) Inflicting bodily harm upon any person while on University premises or University-related premises;
 - 2) Taking any action for the purpose of inflicting bodily harm upon any person while on University premises or University-related premises;
 - 3) Taking any action without regard for bodily harm which could result to any person while on University premises or University-related premises; or
 - 4) Threatened use of force to inflict bodily harm upon any person while on University premises or University-related premises.
 - d. *Damage or destruction of property.*
Damaging, destroying or defacing University property or property of any person while on University premises or University-related premises.

*Contraband is defined as any personal property which is unauthorized and/or illegal under the rules and regulations of the residence hall, the provisions of the University Code, the ordinances of the City of Bowling Green, Ohio, or the laws of the State of Ohio or the United States.

- e. *Theft of property.*
Theft of University property or property of any person while on University premises or University-related premises.
- f. *Hazing*
Commission of any act, or conspiring to commit any act, that injures, degrades, disgraces or tends to injure, frighten, degrade or disgrace any person.
- g. *Unauthorized entry to or use of a University facility.*
Unauthorized entry to or use of any building, structure or facility on University premises or University-related premises.
- h. *False reporting of emergency.*
The making of a false report of a bomb, fire, or other emergency in any building, structure or facility on University premises or University-related premises by means of activating a fire alarm or in any other manner.
- i. *Unauthorized use or alteration of emergency or safety equipment.*
Unauthorized use or alteration of fire fighting equipment, safety devices, or other emergency or safety equipment.
- j. *Interference with emergency evacuation procedure.*
1) Interference with emergency evacuation procedures prescribed for any building, structure, or facility on University premises or University-related premises; or
2) The failure to follow prescribed emergency procedures such as willful disregard of the emergency or of a fire alarm signal.
- k. *Possession or use of firearms*
Possession, keeping, and/or use of a firearm of any description in a fraternity or sorority house, an affiliated off-campus student residence, a University residence hall, or any other area of the University premises or University-related premises.
- l. *Possession or use of dangerous weapons and/or explosive devices.*
Possession, keeping, and/or use of a dangerous weapon or any explosive device of any description in a fraternity or sorority house, an affiliated off-campus student residence, a University residence hall, or any other area of the University premises or University-related premises.
- m. *Distribution or sale of drugs, narcotics, barbiturates, hallucinogens, marijuana, or amphetamines.*
The distribution or sale of drugs, narcotics, barbiturates, hallucinogens, marijuana, or amphetamines on University premises or University-related premises, except as authorized by law.
- n. *Possession or use of narcotics.*
The possession, keeping and/or use of narcotics, including but not limited to opium (morphine, codeine, heroin) and every other substance not chemically distinguishable from them, on University premises or University-related premises, except as authorized by law.
3. A student who is found guilty of any of the following acts shall be subject to the maximum sanction of suspension or any lesser sanction authorized by this code.
- a. *Possession or use of drugs, barbiturates, hallucinogens, marijuana, or amphetamines: Planting, cultivating and/or providing a dwelling for drugs.*
The possession, keeping and/or use of drugs, barbiturates, hallucinogens, marijuana, or amphetamines, including but not limited to lysergic acid diethylamide (LSD) and every other substance not chemically distinguishable from them, on University premises or University-related premises, except as authorized by law.
- b. *Using and/or making of keys.*
Knowingly using, making or causing to be made any key or keys for any building, laboratory, facility, or room of the University, except as authorized by the president or his designee(s).
- c. *Furnishing false information.*
Furnishing to a University office or to a University official a written or oral statement known to be false.
- d. *Misuse of University documents.*
Forging, transferring, altering, or otherwise misusing any student fee card, identification card, schedule card, other University identification, or any other document or record.
- e. *Use of University telephones.*
Charging any long distance telephone call or telegraph message to any telephone on University premises or University-related premises without proper authorization.
- f. *University housing and visitation.*
Violation of the University Housing and Visitation Policy and/or rules governing residence in University owned or controlled property.
4. A student who is found guilty of violating any of the following regulations shall be subject to the maximum sanction of strict disciplinary probation or any lesser sanction authorized by this code.
- a. *Alcoholic beverages.*
Possession, keeping, and/or consumption of alcoholic beverages in any form on University premises or University-related premises, except in those areas of the University premises or University-related premises where the president or his designee has authorized the possession, keeping, and/or consumption of alcoholic beverages.
- b. *Violation of published rules not included in this code governing:*
1) Conduct in a residence hall or a dining area;
2) Conduct in housing designated for social fraternities and social sororities;
3) Conduct in affiliated off-campus student residence;
4) Conduct on University premises or University-related premises; or
5) The registration of organizations, the use of University facilities, or the time, place, and manner of public expression.
- c. *Gambling.*
Playing a game for money or for something of value or selling, bartering, or disposing of a ticket, order, or any interest in a scheme of chance, by whatever name, on University premises or University-related premises.
- d. *Sales and solicitation.*
All sales or solicitation on University premises must be authorized by the University; any which are not authorized will be subject to the above sanction.
5. *Repetition of Misconduct.*
A student who is found guilty of conduct proscribed by any paragraph of this Code shall be subject to the maximum sanction of dismissal or any lesser sanction authorized by this Code if found guilty subsequent to a prior finding of guilt for conduct for which the sanction imposed was dismissal, suspension or strict disciplinary probation.

V. Jurisdiction and Procedures

A. Jurisdiction

1. Residence hall judicial boards have original jurisdiction in all cases involving the violation of a specific hall's regulation or the violation of rules applying solely to the residence halls. Where the jurisdiction of the residence hall board is not apparent, the case will be referred to the director of standards and procedures.
2. Traffic Board has original jurisdiction over all students' violations of University parking regulations. These regulations are enumerated in the document entitled "Motor Vehicle and Bicycle Regulations." Traffic Board has no appellate jurisdiction although it may serve other duties as outlined or specified in the Student Government Association Constitution.
3. *Student Arbitration Board*
 - a. The Student Arbitration Board will handle all cases referred to it by the director of standards and procedures involving alleged violations of this Code by undergraduate students. It shall also serve as an appellate body over all other undergraduate judicial boards and the Traffic Board.
 - b. The power of this board shall be to recommend any course of University disciplinary action to the director of standards and procedures for implementation.
 - c. The Board shall consist of five student members appointed by the student body president and approved by the Student Government Association. A faculty or staff adviser shall be appointed by the president of the University.
 - d. The board may be designated as arbitrator of disputes within the University community. All parties to the dispute will be bound by the decision with the right of appeal.
 - e. The board may give advisory decisions on issues referred to it that are not before any judicial body. Such opinions may not be binding.

4. Graduate Student Judicial Board

- a. The Graduate Student Judicial Board will handle all cases referred to it by the director of standards and procedures involving alleged violations of this Code by graduate students.
- b. The power of this board shall be to recommend any course of University disciplinary action to the director of standards and procedures for implementation.
- c. The board shall be composed of five members. Three graduate student representatives shall be elected from the Graduate Student Senate. Two representatives from the graduate faculty shall be appointed by the dean of the Graduate College.

5. University Appeals Board

- a. Composition: The University Appeals Board shall consist of two faculty members, one administrator, two graduate students, and two undergraduate students, together with one alternate in each category. Faculty members shall be appointed by the Faculty Senate; the administrative member shall be appointed by the president; graduate student members shall be appointed by the Graduate Student Senate; and undergraduate student members shall be appointed by the Student Government Association. Alternate members shall be appointed by the president of the University or his designee.
 - b. Functions:
 - 1) The University Appeals Board must rule on all appeals from the Student Arbitration Board, the Graduate Student Judicial Board, and the director of standards and procedures if the case in question originated with these sources.
 - 2) The University Appeals Board may rule at its discretion on appeals from the Student Arbitration Board if the particular case originated in a lower judicial body.
 - 3) The University Appeals Board shall have original jurisdiction in all cases involving temporary suspension and/or summary suspension (Section V.C and V.D).
 - c. The University Appeals Board, when acting as an appellate body, will review the records involved. It may reverse or affirm the decision of the previous judicial body.
 - d. The University Appeals Board, when acting in cases of original jurisdiction, shall follow the procedures outlined in Section V.C and V.D of this Code.
 - e. Final review: All decisions of the University Appeals Board may be appealed to the president of the University.
6. An appeal from a decision by the initial hearing board may be made by the defendant (or person charged) to the appropriate appellate body within five days of the decision.

- a. An appeal shall be limited to a review of the full record submitted by the hearing board.
 - b. Appeals must be based on alleged errors in procedure or fact.
 - c. The appellant must cite the exact reason(s) for belief of error in procedure or fact with appropriate references.
 - d. The burden of proof is on the appellant.
 - e. An appeal may not result in a more severe sanction for the accused student.
 - f. All appeals must be heard within 15 days of the decision rendered from the initial hearing.
7. All judicial and appellate bodies within the University must formulate and publish procedural rules consistent with the provisions of this code.
8. Judicial bodies may give advisory opinions on issues within their jurisdiction, providing these issues have not been brought before any other judicial body and do not involve violations of University regulations. Such opinions shall not be binding on the party making the request and may not be used as a precedent in future proceedings.

B. Procedures

1. Referral of case (on campus)

Any student, University employee, or other person may report suspected violations of this Code to the director of standards and procedures.

a. Interview

- 1) If the director of standards and procedures has reason to believe these facts constitute a code violation, he will contact the alleged student offender — in writing or in person — to schedule an interview.
- 2) At the interview the director will present the student with written charges and will advise him or her of his or her right to have the alleged violation heard by either the director of standards and procedures or the appropriate student judicial board.
- 3) The director will inform the student of the sanctions involved should he or she (the accused) enter a plea of guilty.
- 4) Within five days after the interview the accused student will make his or her decision in writing to the director stating who the student desires to conduct the hearing.

b. Hearing

- 1) The hearing will be conducted within 15 days following the interview. The director is authorized to grant a five day extension.
- 2) If the accused student's charges are heard by the director, the case may be handled in one of two ways: (1) non-punitive counseling or (2) punitive correctional action. The director may consult professional personnel from the Counseling and Career development Center or Health Service to assist in counseling with the student.

3) If the student chooses to have his or her case heard by the Student Arbitration Board or Graduate Student Judicial Board, the director of standards and procedures will refer the case to the prosecutor of the appropriate board.

2. Because the focus is on the education of students, disciplinary hearings are conducted as informal inquiries and do not follow formalized courtroom procedures. Decisions at such hearings will be limited to evidence introduced therein. If a student has been properly notified of a hearing and fails to appear, he or she may be temporarily suspended by the director of standards and procedures until he or she requests and appears at a new hearing, provided no justifiable excuse was accepted by the appropriate board or director.

3. The following procedural safeguards will be followed in hearings which could result in probation, suspension, or dismissal of the accused:

- a. The student will be given written notice of the specific charges against him or her, the time and place of the hearing, evidence to be presented against him or her, and the possible action to be taken against him or her if the charges are supported.
- b. The accused student will have the right to be assisted by an adviser of his or her choice.
- c. The burden of proof rests on the official bringing the charge.
- d. The accused student has the right to present evidence and witnesses in his or her own behalf.
- e. The director or board shall keep a record of the hearing.
- f. The student shall be advised in writing of his or her right to appeal the director's or the board's decision to the University Appeals Board.
- g. The board or director must give the student a written explanation of the reasons for the disposition of the case.

4. Referral of case

- a. In all cases involving violations of the law on campus and in which an arrest has been effected, Campus Safety and Security will bring the person in violation before the Court of Common Pleas, or other local court of competent jurisdiction. The University will observe the litigation of the courts.
- b. In all other law violations occurring on the campus, the matter should be referred to the director of standards and procedures for further investigation and handling.

C. Temporary suspension

In the rare cases where a student has allegedly violated the law in the course of his or her off-campus behavior and where the University's interest as an academic community is distinctly and clearly impaired the following procedures will be followed.

1. When the student's case has progressed to the indictment stage, or after an information has been filed by the prosecuting attorney, the director

of standards and procedures shall call a hearing to be conducted by the University Appeals Board. This hearing shall be conducted in the presence of the student (if he or she is available) and must comply with the elements of due process outlined in this Code.

2. Five days prior to the hearing, the director of standards and procedures must give the student written notice of the time, place, and date of the hearing and the specific nature of the alleged violation with which he or she has been charged.
3. The University Appeals Board will review all circumstances surrounding the alleged violation and will decide whether the interests of the academic community require or warrant temporary suspension.
 - a. The student will receive a record of the hearing and of the University Appeals Board's decision on the case.
 - b. Copies of each will be sent to the director of standards and procedures and the president of the University.
4. A student's suspension will be revoked immediately if he or she is acquitted of the charges or if the case against him or her is dropped.
5. If a student is convicted in a court trial, the director of standards and procedures will consult with the appropriate agency (e.g.; Probation Department, prosecutor) and present his recommendation to the University Appeals Board. This procedure is followed whether or not the student was previously suspended.
6. The University Appeals Board will serve as the final review body and shall recommend to:
 - a. Continue or revoke current suspension;
 - b. Suspend the student for an indefinite period of time;
 - c. Permit the student to continue matriculation at the University.
7. The University Appeals Board's recommendation on suspension is transmitted to the president of the University for final action.

D. Summary suspension

Under the special circumstances described in this paragraph, the president and/or his expressly designated representative has the authority to summarily suspend a student. This authority shall be exercised only in those situations in which a student's behavior is allegedly in violation of Section IV B2c and d of the Student Code and where such alleged misconduct occurs on the premises of the University and poses a clear and immediate threat of substantial and/or irreparable injury to persons, and/or such damage to property as is deemed likely to result in major obstruction of educational processes or to constitute a substantial threat to the health and/or life of persons.

1. If summary suspension is invoked, the Office of the President, within 24 hours of invoking the suspension, shall contact the suspended student and present him or her with a written statement of the specific charge

against him or her including a summary of the evidence upon which the charge is based. In addition, this statement will advise the student of his or her right to a hearing before the University Appeals Board on or before the fifth class day following the suspension order. The statement will also specify the time and place of the hearing and articulate the elements of due process, found in Section V B3 of the Student Code, to which the student will be entitled at the hearing.

2. The suspended student shall also be advised that he or she has the option of either:
 - a. Requesting the convening of the hearing prior to the fifth day upon 24 hours' written notice to the Chair of the University Appeals Board; or
 - b. Requesting a continuance beyond the fifth class day — said continuance not to exceed five class days. This statement will be delivered personally to the suspended student or if his or her whereabouts are unknown and unascertainable, left at the place of his or her Bowling Green residence.
3. The University Appeals Board will hear the alleged violation in accordance with its rules of procedure and the elements of due process enumerated in Section V B3 of the Student Code.
4. If the University Appeals Board finds by a preponderance of the evidence that the suspended student committed the act in question, the suspension shall be continued in effect for a period of time to be determined by the University Appeals Board. In no case, however, will the suspension period exceed by more than one year the date of the original suspension order. In reaching its decision, the University Appeals Board will weigh and consider what it determines to be the best interests of both the suspended student and the academic community at large.
5. Should the University Appeals Board find that the student did not commit the act for which he or she was summarily suspended, the suspension shall be revoked and the student immediately reinstated without academic or other penalty.
6. Appeal of the ruling of the University Appeals Board may be taken by the student to the president of the University whose determination on the issue of suspension shall be final. (NOTE: If the president issued the original suspension order, appeal will lie directly with the Board of Trustees.)

VI. The Following Sanctions may be imposed:

- A. Sanctions as authorized by, defined in, and applicable to the University Policy on Academic Honesty.
- B. Dismissal from the University for not less than four full quarters following the effective date thereof. Dismissal shall:
 1. Be effective on the date of notice of dismissal;
 2. Prescribe the conditions, including but not limited to the terms of dismissal; and
3. Prescribe the date and conditions upon which a student may petition for reinstatement.
- C. Suspension from the University for not more than three full quarters following the effective date thereof. Suspension shall:
 1. Be effective on the date of notice of suspension unless otherwise stated in the notice;
 2. Prescribe the conditions, including but not limited to the terms of suspension; and
 3. Prescribe the date and conditions upon which a student may petition for reinstatement.
- D. Strict disciplinary probation for a definite period of time. Recommendations may be made that a student placed on strict disciplinary probation not be eligible:
 1. To participate in any intercollegiate event;
 2. To participate in any major extracurricular activity; or
 3. For loans, grants, and scholarships. (Any of the foregoing restrictions may be waived by the designated University official or adjudicatory body authorized to recommend this sanction if it is determined that circumstances warrant such waiver.)
4. Upon termination of the period of strict disciplinary probation, the lost privilege or privileges and eligibility are restored automatically, provided the student has complied with all of the terms and conditions of the probation.
- E. Disciplinary probation for a definite period of time. Disciplinary probation is written notice to the student that his or her conduct is in violation of this Code and that more serious disciplinary action may result from further violations of this Code.
- F. A written or oral warning to a student that his or her conduct is in violation of this Code.
- G. Termination of the registration of registered student organizations. Such termination is the discontinuation of the registration of the registered student organization, including the loss of all privileges.
- H. Restitution for damage to, destruction of, or misappropriation of University property or property of any person while on University premises or University-related premises which results from conduct in violation of this Code.
 1. Restitution may be ordered by the appropriate University official or University adjudicatory body in connection with, or in lieu of, sanctions which may be imposed in accordance with this Code for damage to, destruction of, or misappropriation of property as defined above.
 2. When restitution is ordered in connection with a sanction, it shall constitute a condition of reinstatement or restoration of privileges or registration to a student organization or restoration of privileges to a student.
 3. When restitution is ordered in lieu of a sanction, failure to make restitution may subject a student of a registered student organization to any sanction which could have been imposed in accordance with this code for damage to, destruction of, or misappropriation of property as defined above.

- I. Conditions of dismissal and suspension. Any student dismissed or suspended from the University:
1. Shall be denied all privileges accorded a student; and
 2. Shall be required to leave the University premises forthwith, if it is found by the adjudicatory body that the student's continued presence on University-premises or University-related premises constitutes a clear danger to the University or threatens to disrupt or disturb the normal educational functions of the University, and to remain away so long as that threat or danger continues except that that individual:
 - a. May appeal to the dean of students for entrance to the University premises or University-related premises for specified purpose.
 - b. Has the right to appeal to the appropriate appellate body to remove or reduce the terms of this condition.
 - c. May be required to meet certain conditions upon reinstatement that are recommended by an appellate body to the president or his designee including one or more of the following:
 - 1) Ineligibility to participate in any major activities;
 - 2) Ineligibility to participate in intercollegiate events; or
 - 3) Periodic contact with a designated University staff member or counseling agency.
- Upon the merits of the individual case and recommendations from the director of standards and procedures, the president or his designee may waive these conditions at the time of reinstatement.
- J. Failure to observe terms and conditions. Failure to observe the terms and conditions of dismissal, suspension, or strict disciplinary probation may constitute cause for the extension of the time period during which the terms or conditions were imposed.

VII. Student Records

A. Inspection and review of records

Persons who are attending or have attended Bowling Green State University have the right to inspect and review official records, files, and data directly related to themselves, including materials incorporated into their educational records in accordance with the University Policy on Student Records, excepting that they will not have access to certain educational records as stipulated in Section VII D. Persons currently enrolled as students shall be provided with a notification of the types of educational records which are maintained by Bowling Green State University and the University official(s) who maintain control over such records.

Persons who have obtained matriculation status at Bowling Green State University are for the purpose of this policy considered to be students with access to their educational records under the conditions provided below.

1. A student may request, in writing, the opportunity to inspect and review his or her educational records.
 - a. The request should be made to the chief administrator of the department in which the records are on file or to his or her designee(s).
 - b. A request must specify those records to be inspected and reviewed.
2. A request by a student to inspect and review his or her educational records will be processed within 10 days of receipt of the request.
3. Records will be inspected and reviewed by the student in the presence of the chief administrator of the department in which the records are on file or to his or her designee(s) provided that such requirement does not operate to effectively prevent the exercise of rights by the student under this section.
 - a. Records may not be changed or deleted during the process of inspection and review.
 - b. The student shall be entitled to a response to a reasonable request for explanations and interpretations of his or her educational records.
 - c. Upon written request, the student shall be provided with a copy of his or her educational records at a fee not to exceed the actual cost to the institution of reproducing such records provided that the fee does not effectively prevent the student from exercising his or her rights to inspect and review his or her records.
 - d. The student shall be advised of his or her right to request that the educational records be amended.

B. Request to amend educational records

1. A student who believes that information contained in his or her educational records is inaccurate or misleading or otherwise is in violation of his or her privacy or other rights may request that the records be amended.
 - a. The request should be made in writing to the chief administrator of the department in which the records are on file or to his or her designee(s).
 - b. A request must specify those educational records to be amended and the reason(s) for amending the educational records.
2. A request by a student to amend information contained in his or her educational records shall be processed within 10 days of receipt of the request.
 - a. The chief administrator or his or her designee shall review the request and shall decide whether to amend the educational records.
 - b. The student shall be informed in writing of the disposition of the request and the reason(s) for the disposition.
 - c. The student will be advised of his or her right to a hearing under Section VII C in the event of a refusal to amend the educational records.

C. Hearing to challenge content of records

Students shall have an opportunity to hear to challenge the content of their educational records, to insure that such records are not inaccurate, misleading, or otherwise in violation of their privacy or other rights.

1. A student may request, in writing, an opportunity for a hearing to challenge the content of his or her educational records.
 - a. The request for the hearing should be made to the president or his designee(s).
 - b. A request for the hearing must:
 - 1) Identify in specific terms the portion(s) of the educational records to be challenged;
 - 2) State the reason(s) for challenging the portion(s) of the educational records so identified.
2. Hearing procedures
 - a. The hearing will be conducted by the designee(s) of the president, but in no case shall the hearing officer have a direct interest in the outcome of the hearing.
 - b. The hearing will be granted within 15 days after receipt of the written request for a hearing;
 - c. The chief administrator responsible for the educational records under challenge or his or her designee(s) shall represent the records in the hearings.
 - d. Prior to the hearing, the hearing officer shall notify the student at the chief administrator or his or designee(s) (that person representing the records) of the time, place, and date of the hearing and of the specific portion(s) of the student's educational records to be challenged in the hearing.
 - e. The hearing shall be limited to a consideration of that specific portion(s) of the student's educational records being challenged.
 - f. The student may be assisted by an adviser of his or her choice, including an attorney.
 - g. The student and institutional official representing the educational records have the right to present evidence and witnesses directly related to that portion(s) of the educational records being challenged.
 - h. The hearing officer shall keep a record of the hearing.
 - i. The hearing officer must provide the student with a written notification of the disposition of the challenge including a summary of the evidence and the reason(s) for the disposition.
 - j. The decision shall be based solely upon the evidence presented at the hearing.
 - k. Remedies
 - 1) The records may be amended, or
 - 2) The records may stand in which event the student shall be notified of his or her right to place in the educational records a statement commenting upon the information in the educational records and/or setting forth any reasons for disagreeing with the decision.

D. Records not subject to inspection and review

The following records are not subject to inspection and review:

1. Financial records of the parents of the student or any information contained therein.
2. Confidential letters and statements of recommendation, which were placed in the educational records prior to January 1, 1975, provided that the letters and statements are used only for the purposes for which they were specifically intended, and the letters and statements were solicited with a written assurance of confidentiality, or sent and retained with a documented understanding of confidentiality.
3. Confidential letters or statements of recommendation, which were placed in the educational records after January 1, 1975, and for which the student has signed a waiver of access:
 - a. With respect to admission to an educational institution;
 - b. With respect to any application for employment; or
 - c. With respect to the receipt of an honor or honorary recognition.
4. Records of instructional, supervisory, and administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute.
5. Records and documents maintained by Campus Safety and Security provided:
 - a. Educational records are not disclosed to personnel of Campus Safety and Security;
 - b. The records and documents of Campus Safety and Security are kept apart from the educational record;
 - c. The records are maintained solely for law enforcement purposes; and
 - d. The records are not made available to persons other than law enforcement officials of the same jurisdiction.
6. Records of a person who is employed by the institution in a position not limited to student employees when such records are made and maintained in the normal course of business, relate exclusively to such persons in that person's capacity as an employee, and are not available for use for any other purpose.
7. Records created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional or paraprofessional capacity, or assisting in that capacity, and which are created, maintained, or used only in connection with the provision of treatment to the student, and are not available to anyone other than persons providing such treatment; provided, however, that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.
8. Records which contain only information relating to a person after that person is no longer a student.

E. Disclosure of personally identifiable information from educational records**1. Information disclosed with student's consent.**

A student's educational records or personally identifiable information contained therein shall not be disclosed without the student's written consent except as provided in Section VII E2.

- a. Consent shall be given by the student in writing and be signed and dated by the student.
 - b. The written consent shall include:
 - 1) The specific records to be disclosed;
 - 2) The reason(s) for such disclosure; and
 - 3) The party or class of parties to whom such records will be disclosed.
 - c. A copy of the records to be disclosed will be provided to the student upon request.
 - d. Information disclosed shall include a written statement that the party to whom the information is disclosed shall not permit another party to have access to such information without the consent of the student, except that the personally identifiable information which is disclosed to an institution, agency, or organization may be used by its officer, employees, and agents, but only for the purposes for which the disclosure was made.
- 2. Disclosure of personally identifiable information from a student's educational records without a student's consent.**
- Educational records or personally identifiable information may be disclosed without the student's written consent under the following circumstances only:
- a. Directory information (student's name, local address, and telephone listing, home address, and telephone listing; parent's or legal guardian's name, address, and telephone listing; class schedule; date and place of birth; major field of study; class standing; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received; and the most recent previous educational institution attended by the student) after public notice is given of the categories of information to be released and the student is given a reasonable period of time to inform the institution that any or all of the categories of information should not be designated as directory information with respect to that student. Disclosure of directory information from the educational records of an individual who is no longer in attendance may be made without following procedures outlined in this section.
 - b. To other school officials, including teachers within the educational institution who have legitimate educational interests (Section VII G).

- c. To officials of other schools upon request, in which the student seeks or intends to enroll, provided the student receives a copy of the records, if desired, and has an opportunity to a hearing under Section VII C.
- d. To authorized representatives of the comptroller general of the United States; the secretary of Health, Education, and Welfare; the commissioner of education; the director of the National Institute of Education; the assistant secretary for education; or state educational authorities which may be necessary in connection with the audit and evaluation of federally supported educational programs, or in connection with the enforcement of, or compliance with, the federal legal requirements which relate to these programs.
- e. To a party who is the source of, or administers financial aid applied for, or received by the student, when necessary to determine the eligibility of the student for financial aid, to determine the amount of financial aid, to determine the conditions which will be imposed regarding the financial aid, or to enforce the terms or conditions of the financial aid.
- f. To state and local officials or authorities to whom such information is specifically required to be reported or disclosed pursuant to the Ohio Revised Code adopted prior to November 19, 1974.
- g. To organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, provided that such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organizations and, provided such information will be destroyed when no longer needed.
- h. To accrediting organizations in order to carry out their accrediting functions.
- i. To appropriate parties in a health or safety emergency if the knowledge of such information is necessary to protect the health and safety of the student or other persons considering such factors as:
 - 1) The seriousness of the threat to the health or safety of the student or other persons;
 - 2) The need for the information to meet the emergency;
 - 3) Whether the parties to whom the information is disclosed are in a position to deal with the emergency; and
 - 4) The extent to which time is of the essence in dealing with the emergency.
- j. To comply with a judicial order or a lawfully issued subpoena, upon condition that a reasonable effort is made to notify the student of all such orders or subpoenas in advance of the compliance therewith.

- k. To parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954. For the purpose of this section, undergraduate students are assumed to be dependent and graduate students are assumed to be independent unless the University is otherwise notified by the student or parent.
3. **Record of information released.** Each division and/or department shall maintain a record, kept with the educational records of each student, which will indicate all parties, except those excluded herein, which have requested or obtained access to a student's educational records maintained by the division and/or department. Such records will indicate specifically the legitimate interest that each party has in obtaining this information. Such records may be inspected by the student, by the institutional official responsible for the custody of such records or his or her assistant, and by other persons authorized by Section VII E2b for the purpose of auditing the recordkeeping procedure. This section does not apply:
- To requests by or disclosure to a student;
 - To requests by or disclosure to school officials under Section VII E2b;
 - To request for or disclosure of directory information; and
 - If there is written consent of the student.
4. The University retains the right to review all requests for the release of information and to deny the release of such information to persons other than the student except when required to do so by law, a judicial order, or a subpoena.

F. Waiver of the right to access to certain educational records.

- A student or a person applying for admission may, in writing, waive his or her right to access to confidential letters or statements of recommendation described in Section VII F2, except that such waiver shall apply to recommendations only if:
 - The applicant or student is, upon request, notified of the names of all persons making confidential recommendations; and
 - Such recommendations are used solely for the purpose for which they were specifically intended.
 Such waivers may not be required as a condition for admission to, or receipt of any other services or benefits from Bowling Green State University.
- The student may, under Section VII F1, waive his or her right of access to confidential recommendations:
 - Respecting admission to any educational agency or institution;
 - Respecting an application for employment; and
 - Respecting the receipt of an honor or honorary recognition.
- A waiver under this section may be revoked in writing with respect to any actions occurring after the revocation.

G. Disclosure of personally identifiable information to University officials

- Personally identifiable information may be disclosed to members of the University faculty, staff, or to others who through assignment or appointment act on behalf of the University as needed to fulfill their normal educational function(s), or as might otherwise be required or permitted by this policy, by policies of the Board of Trustees, or by applicable federal or state laws.
- Access to personally identifiable information by faculty, staff, or by others who through assignment or appointment act on behalf of the University must be based upon legitimate educational interests including activities related to the administrative function of the University, to teaching, research, advising, committee membership, maintenance of records, preparing correspondence and reports directly related to students, preparing statistical reports, transmittal of records, evaluation, or as might otherwise be needed to fulfill the conditions of this policy, the policies of the Board of Trustees, or applicable federal and state laws.

H. Types and location of educational records and University officials responsible for records

- Director of admissions — Admissions Office.** Application for admissions, high school transcripts, college transcripts, ACT scores, letters of recommendation, correspondence, and BGSU student profiles.
- Bursar — Office of the Bursar.** Financial records of the students.
- College and department offices — college deans, department chair, and academic advisers (may possess all or part of the records noted below).** Application for admission, applications for graduate assistantships, letters of recommendation, transcripts, personal information sheets, grades, degree plans, forms for course withdrawal, drop-add forms, change of grades, college transfer, ACT profile, academic appeal forms, senior check list, information related to any incident of academic dishonesty, results of proficiency tests, correspondence, adviser records, degree programs progress forms, evaluations, graduate assistant contracts, graduate comprehensive examination, scores on standardized tests, scholarship application letters, and student employee records.
- Graduate College — vice provost and dean of the Graduate College.**
 - Copy of application for admission form; Social Security number, date of birth, gender, race, citizenship status, veteran status, foreign language facility, and educational history.
 - Academic grade card: Grade and credit hours earned for individual courses, accumulative grade point average, major field, faculty adviser, and degrees earned.

- Award of employment for assistantship or fellowship: Job title, duration of contract, and stipend level.
 - Scores on standardized tests: Verbal, quantitative, and advanced test scores on graduate study in business.
 - Tentative degree program form: List of all graduate courses and degree requirements as they are expected to be fulfilled at the time of beginning the degree program.
 - Degree progress form: Documentation of dates when a student completes thesis or dissertation requirements and comprehensive examinations.
 - Miscellaneous correspondence: Notification of placement on academic probation or removal therefrom, responses to petitions generated by individual students and faculty members, copies of forms used to maintain records (e.g., removal of incomplete grades), and responses to various written inquiries from a student.
- Computational Services — director of computational services.** Personally identifiable information, information related to progress toward a degree, adviser's name, parents' names and address, date and place of birth, race, residency status, information related to the student's academic program, high school data, activities, honors and awards received, standardized test scores, financial aid, information related to admissions, and accounts receivable data.
 - Office of the Director of Standards and Procedures — director of standards and procedures.** Disciplinary records and college transfer clearance forms.
 - Financial Aids — director of financial aid.** Information related to the application for and receipt of financial aid.
 - International Student Programs — director of international programs.** Information related to application for and admission to the University of international students.
 - Placement — director of placement.** Information related to placement including data sheet, letters of reference, transcript, evaluations, certifications and autobiographical sketch.
 - Office of the Registrar — registrar.** Personally identifiable information, information related to progress toward a degree, transcripts, standardized test scores, and registration records.
 - Residence Life — assistant vice provost for residence life.** Information related to the application for and the receipt of resident assistantships, evaluation of resident assistants, personal data and information cards, and application for and receipt of University housing.
 - Student Employment — director of financial aid.** Information related to the application for and receipt of student employment, financial aid information, and evaluation of student employees.

I. Maintenance of records

1. Separate official files shall be maintained as follows:
 - a. Academic records, supporting documents, and general educational records;
 - b. Records of disciplinary proceedings;
 - c. Medical, psychiatric, and counseling reports;
 - d. Financial records;
 - e. Employment records;
 - f. Placement records
2. Records such as grade books, advising files, recommendations, and counseling notes may be kept by members of the faculty and administrative staff.
3. Expulsion may be recorded on a student's permanent academic record to reflect a severing of the academic career. Records of any student's disciplinary action may be maintained only in the files of the director of standards and procedures and the appropriate judicial body. Such records may be maintained for five years after clear discontinuation from the University at which time such records shall be closed.
4. No student record shall be preserved beyond graduation or other final departure from the University except as follows:
 - a. Academic records, supporting documents, and general educational records, may be retained indefinitely subject to the limitations on disclosure previously stated.
 - b. Financial records may be maintained so long as needed.
 - c. Medical, psychiatric, and counseling records may be retained indefinitely subject to the limitations on disclosure previously stated.
 - d. Records of extracurricular activities may be retained for five years after final departure from the University.
 - e. Employment and placement records may be retained indefinitely subject to the limitations on disclosures previously stated.
5. No record shall be destroyed:
 - a. For which there is an outstanding request by a student to inspect or review the record pursuant to Section VII A;
 - b. Which is placed in the educational record by the student pursuant to a hearing under Section VII C2 as long as the record or contested portion thereof is maintained by the University; and
 - c. Which is a record of access pursuant to Section VII E3 as long as the educational record to which the record of access pertains is maintained by the University.

VIII. Student Affairs

In student affairs certain standards must be maintained if the freedom of students is to be preserved.

A. Freedom of association

Students are free to organize and join associations to promote their common interests, providing these associations are organized for legal purposes and do not conflict with the University's educational objectives.

1. Organizations

- The Organizations Board of the Student Government Association will, subject to review by the Student Senate members, register social, service, special interest, and professional organizations based on the following policy:
- a. Affiliation with an extramural organization will not of itself disqualify a student organization from institution registration.
 - b. Campus advisers who are members of the faculty or staff are required for any student organization receiving University funds. They are encouraged for all other organizations. Campus advisers may counsel organizations in the exercise of responsibility, but they will not have authority to control the policy of the organization.
 - c. Student organizations will be required to submit a statement of purpose, criteria for membership, rules of procedures, and a current list of officers. They will not be required to submit a membership list as a condition of institutional registration.
 - d. Organizations, including those affiliated extramurally, must be open to all students without respect to race, creed, national origin, age, sex, political views, or handicap.

B. Freedom of inquiry and expression

1. Students and student organizations may express their opinions both publicly and privately. They are free to support causes in either a planned or spontaneous manner, providing they do not disrupt the regular and essential operation of the institution. Students abuse this right when they damage property or interfere with the rights of others.
2. The University Space Assignments Office is available to register a planned activity and to designate indoor or outdoor locations where such assemblies can be held. Through registration, the University will endeavor to provide adequate facilities and security.** It is the responsibility of organizers and/or sponsors of any meeting, rally, procession, or demonstration to insure that the activity does not disrupt other University functions.
3. A disturbance is defined as follows:
 - a. Any activity or conduct substantially interfering with or disrupting the lawful activity of others.
 - b. Any activity or conduct accompanied by a clear and present danger of personal injury or property damage.
 - c. Any activity or conduct which violates any regulations enumerated in Section IV B of this code.
4. Right of advocacy
 - a. Members of the University community are free to advertise specific causes and distribute literature within the bounds set by pertinent public laws, regulations adopted by the residence halls, and the provisions of this Code.

- b. Members of the University community may solicit funds only for charitable and/or nonprofit causes. These activities may be conducted by any orderly means which do not disrupt the operation of the University (Section VIII B3).
- c. Individuals and groups are encouraged to exercise their constitutional freedoms of speech and assembly in both private and public expression.
- d. With the freedoms of speech and assembly go the responsibilities of avoiding libel, indecency, undocumented allegations, attacks on personal integrity, harassment, and innuendo.

C. Guest speakers

1. It is the policy of the University to foster a spirit of free inquiry and to encourage the timely discussion of the broad range of issues provided that the views expressed are stated openly and are subject to critical evaluation. Within our prevailing standards of decency and honesty, this policy shall be construed to mean that no topic or issue is too controversial for intelligent discussion on the campus. Restraints on free inquiry should be held to that minimum which is consistent with preserving an organized society in which change is accomplished by peaceful, democratic means.
2. To this end, a recognized student organization may invite guest speakers to the campus to address meetings subject only to the following provisions:
 - a. Space for the event must be registered with the Office of Space Assignments if University facilities and services are to be used. Individuals or registered student organizations interested in planning an event are urged to contact a faculty member adviser or the assistant vice provost for student activities for assistance in making these arrangements.
 - b. Sponsorship must be by a registered student organization.
 - c. It must be made clear that the student organization, not the University, is extending the invitation and that any views the speaker may express are his or her own and not those of the University.
 - d. The student organization must take whatever steps are necessary to insure that the meeting is conducted in an orderly manner.
 - e. The student organization is encouraged to provide means for critical evaluation of the speaker's view, which might include an open question period following the speaker's presentation.
 - f. The student organization must comply with any and all conditions for the orderly and scholarly conduct of the meetings as prescribed by Section VI B as well as the Ohio Revised Code.

**Although normal police protection is assumed at all times, groups registering demonstrations may request special police attention by advising Campus Safety and Security of such activities in advance. For many practical reasons absolute integrity of person and property cannot be guaranteed — especially in a mob or crowd situation.

IX. Class Attendance***

The faculty believes that classroom activities are essential to learning and to the application of knowledge. The student is responsible for knowing and meeting all course requirements, including tests, assignments, and class participation, as indicated by the course instructor. The instructor has no obligation to give make-up examinations or to review other class work missed by a student as a result of absence.

Although an instructor may accept a student's cause for an absence as a basis for making up major tests and examinations, the responsibility for making up work missed during absence rests with the student.

X. Amendment Procedure

- A. Any member of the University community may recommend a change of this Code to the dean of students. If it is endorsed, the proposal and any appropriate recommendations will be forwarded to the president. The recommended change shall be in the form of a written statement of the proposed amendment.
- B. The University president will present the proposed amendment to the Board of Trustees.
- C. If the amendment is adopted by the board, it will be adopted into the Code and officially announced to the entire University community.

**APPENDIX I
UNIVERSITY POLICY ON
ACADEMIC HONESTY**

Objectives

1. To communicate to all members of the University community the conviction of the University and its faculty that cheating and plagiarism are destructive to the central purposes of the University and are universally disapproved.
2. To state procedures for accomplishing the above objective by students, faculty, academic deans, and the University Academic Honesty Committee.

Procedures

1. Both students and faculty should initiate discussions which will lead to the elevation of University mores on cheating and plagiarism.
2. Each faculty member should include in his or her introduction to a course:
 - a. A statement of his or her definitions and policies with regard to cheating and plagiarism;
 - b. Statements about examinations within the specific course, e.g., frequency, kinds, importance; and
 - c. The statement that every instance of dishonesty as defined in (a) will be reported as described elsewhere in this policy.
3. Insofar as possible, temptations to potential violators should be removed. Specific suggestions include:
 - a. Only new tests should be used. Samples of course tests may be filed in the University Library. The Library will receive, file, and make available to students through the closed reserved system all tests forwarded by the teaching faculty but will not actively procure or permanently retain such tests. (Unless otherwise requested by a teaching department the normal retention period will not exceed five years.)
 - b. When test items are similar to those used in the past, strict security should be observed so that copies of such items are not taken from the test area.
 - c. Testing of large groups should be held in places other than rooms with high density seating.
 - d. There should be provision of sufficient proctors for the group being tested. Assistance should be provided by instructors and, where necessary, by student assistants.
4. Faculty members should exemplify the highest levels of academic honesty at all times.
5. Cases of academic dishonesty shall be reported to the dean of the college in which the student is enrolled, to the dean of the college in which the course is taught, and to the dean of students, either by the instructor or by a student in the class where the incident occurs. A memorandum stating the nature of the report and the disposition of the case shall be sent to the Academic Honesty Committee and to the dean of stu-

dents by the student's dean. The student shall be informed in writing of the charges made and of his or her rights of due process in all hearings related to the matter.

6. Penalties for offenses are defined as follows:

Expulsion	Dismissal with no provision for readmission
Dismissal for a stated period of time	After the time has elapsed, the student may apply for readmission on same basis as any student entering from another school.
Suspension for a stated period of time	May not register again until stated period of time has elapsed. The student is subject to all regulations dealing with his status at the time of suspension, e.g., academic warning.
Suspended penalty	Where any of the three above stated have been totally or partially suspended, a student who subsequently violates the academic hon-

Failure in course	The student should be withdrawn from the course and a grade of WF assigned.
Failure in part of a course (test, paper, etc.)	In accordance with practices of instructor.
Warning	Assigned by the academic dean. Facts are recorded in student's record.

Each penalty shall be considered to be a punishment of greater degree than the punishments listed below it (assuming dismissal time is at least as long as suspension time). Academic credit earned at another institution during a period of suspension or dismissal for violation of the University policy on academic honesty will not be accepted at Bowling Green State University.

7. Penalties for first offenses shall be in accordance with the following table:

Offense	Minimum Penalty	Maximum Penalty	Original Jurisdiction
Cheating or plagiarism on examinations or other assignments in a course*	Failure on examination or assignment	Failure in course	Instructor in course
Stealing, duplicating, or selling examinations or examination books to be given	Suspension for two quarters	Expulsion	Student's academic dean
Substitution in class for a significant period without permission	Warning (for substitute) Failure in course (for enrollee)	Suspension for one year	Student's academic dean
Substitution in an examination	Suspension for two quarters	Dismissal for one year	Student's academic dean
Plagiarism or other forms of dishonesty, by a graduate student, associated with nonformal course material (e.g., thesis, dissertation, preliminary or comprehensive examination, field experiences)	Suspension for two quarters	Expulsion	Graduate dean in consultation with instructor/faculty member responsible
Possession and/or use of stolen examinations, papers, or other course assignments	Suspension for two quarters	Expulsion	Student's academic dean
Other cheating	Warning	Suspension for two quarters	Student's academic dean

For second offenses, the maximum penalty may be increased to a longer period of suspension or dismissal or to a greater degree of punishment. One year is defined as four consecutive quarters.

*Purchase of research papers or employment of a person or agency to prepare such papers is considered by the Academic Honesty Committee to be equivalent to plagiarism.

8. In any case in which the maximum penalty for the alleged offense is less than suspension, the instructor having original jurisdiction shall determine the penalty. In all such cases, the faculty member shall confer with the student before assessing the penalty. The instructor shall notify the student's academic dean of the penalty imposed. The first 10 days from the date on which the student receives notice of this penalty will be a transitional period during which the student may confer with the dean in question concerning his or her case.

In any case in which the penalty for the alleged offense is suspension, dismissal, or expulsion, the academic dean having original jurisdiction shall be required before making a decision to inform the dean of students that the student has been charged with the offense, and notify the student of the charges and of the opportunity for a hearing. The student shall have five days from receipt of the notice to request a hearing with the dean. The dean of students shall supply the academic dean having jurisdiction with any relevant information and may make a recommendation as to the disposition of the case. A penalty of suspension, dismissal, or expulsion is to be determined by the academic dean having original jurisdiction.

The student's academic dean shall in all cases of academic dishonesty notify a student of the penalty imposed. All penalties shall begin immediately upon notification of the student in writing by the academic dean of its assessment unless appealed. If appealed, the assessment is to be withheld until completion of the appeals process. If the original decision is upheld, the penalty will be effective as of the original date of notification. If, during the period of the hearing or the appeal, a quarter or term ends, grades and credits of the student shall be withheld pending final resolution of the case.

9. The University Academic Honesty Committee shall have appellate jurisdiction in cases of academic dishonesty and shall establish its own procedural rules. The student's academic dean shall inform the student in writing of his or her right to appeal as described below. The student will have 10 days from the date on which he or she receives notice of the penalty to file an appeal. An appeal may be based on new evidence or on procedural errors in the proceedings, leading to the assessment of the penalty. Appeals are to be sent by the student in written form to the committee, with copies to be filed with the dean of the college in which the student is enrolled, and the dean of the college in which the course is taught. The committee shall have authority to initiate review of any case, if it so desires, and shall have authority to conduct an investigation of a case de novo. The Academic Honesty Committee shall have the power to suspend a penalty in whole or in part and to impose appropriate conditions

as a corollary. This power may be exercised either upon recommendation of the dean who imposed the penalty or in the course of the review of a case by the committee. Final appeal jurisdiction in any case rests with the president of the University.

10. When violations of academic honesty are such as to escape notice at the time of their commission but are discovered at some future time, penalties may be imposed at the time the violation is discovered. The procedures governing such penalties are the same as described above. The statute of limitations on all such offenses, except those involving graduate theses or dissertations, shall be one calendar year from the date of graduation of the person involved.

Approved by the Faculty Senate January 5, 1971, on the basis of the report of the Academic Honesty Committee. Amended by the Faculty Senate February 1, 1977, February 6, 1979, and May 1, 1979.

Final Examination Policy

This is the official policy of the University on final examinations as revised by the Faculty Senate on November 29, 1977, and authorized by the president on February 14, 1978.

1. A final examination should be given in all courses where appropriate.
2. Consistent with traditional principles of academic freedom, the faculty member or group responsible for a course shall determine whether a final examination is or is not appropriate (such as in graduate seminars, PSI instruction, etc.)
3. Ohio Board of Regents specifies that an academic quarter consists of 11 weeks. The eleventh week of the quarter at Bowling Green State University is reserved for the scheduling of final examinations.
4. Final examinations shall be administered at the times scheduled for that purpose, except with specific permission of the provost.
5. In those courses where a final examination is deemed inappropriate, faculty shall conduct other appropriate course-related activities during the period scheduled for final examination.
6. Department chairs shall be responsible for implementing this policy.

Permission of the Office of the Provost may be secured by providing a memorandum in writing stating the time for which the examination is scheduled, the time at which it is desired to offer it, and the reason for the change. The memorandum should also certify that the students involved agree to the change and that provision has been made for make-up in all cases of conflict. This memorandum, endorsed by the chair of the department and dean of the college involved, should be forwarded to the Provost's Office. An immediate response by telephone will be confirmed in writing by the next day. Permission will not be granted to reschedule examinations except during the designated final examination period. No permission from the Provost's Office is required in order to provide a make-up examination for one or two students on the grounds of conflict or other urgent reasons for being absent from the final examination.

Administration and Faculty

Board of Trustees

	Term Expires
Ann L. Russell, Milan	1982
Frazier Reams Jr., Toledo, Vice President	1983
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M. Shad Hanna, Bowling Green	1986
Robert C. Ludwig, Marion	1987
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Melvin L. Murray, Fostoria	1989
Richard A. Edwards, Secretary	

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Michael R. Ferrari, Provost and Executive Vice President
 Richard A. Edwards, Vice President and Assistant to President
 James E. Hof, Vice President for Development and Alumni Affairs
 George Postich, Vice President for Operations
 Richard R. Eakin, Executive Vice Provost for Planning and Budgeting
 Myron M. Chenault, Associate Vice President for Legal, Staff, and Contract Relations

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Deans

Algalee P. Adams, Dean, Firelands College
 Dwight F. Burlingame, Dean of Libraries and Learning Resources
 David G. Elsass, Dean, College of Education
 John G. Eriksen, Dean, College of Arts and Sciences
 Garrett T. Heberlein, Vice Provost for Research and Dean, Graduate College
 Mary E. Miles, Dean, College of Health and Community Services
 Donald Ragusa, Dean of Students
 Karl E. Vogt, Dean, College of Business Administration
 Kenneth A. Wendorich, Dean, College of Musical Arts

**Faculty

Algalee P. Adams, 1977. B.S. Ed., M.A., University of Missouri; Ph.D., Pennsylvania State University. Professor of Humanities; Dean, Firelands College.
David W. Addington, 1968. B.A., Palos Verdes College; M.A., University of California; Ph.D., University of Iowa. Professor of Speech.
Hassoon S. Al-Amiri, 1964. Mathematics License, Higher Teachers Training College, Iraq; M.S., Ph.D., University of Michigan. Professor of Mathematics and Statistics.

Janice M. Alberghene, 1979. B.A., University of Massachusetts. Assistant Professor of English.

James H. Albert, 1979. B.S., Bucknell University; M.S., Ph.D., Purdue University. Assistant Professor of Mathematics and Statistics.

John P. Allen, 1974. B.A., M.Ed. University of Arizona; Ph.D., Purdue University. Assistant Professor of Education.

Judith Warniment Allen, 1974. B.S., M.A., Bowling Green State University; Ph.D., University of Toledo. Assistant Professor of Education.

Warren S. Allen, 1946. B.M., Southwestern College; M.M., University of Michigan. Professor of Music Performance Studies.

Elizabeth Allgeier, 1980. B.S. University of Oregon; M.A., State University of New York, Oswego; Ph.D., Purdue University. Assistant Professor of Psychology.

Thomas J. Alpert, 1979. B.S., Central Michigan University; M.S., Air Force Institute of Technology. Assistant Professor of Aerospace Studies.

Liuda L. Alssen, 1962. Diploma, University of Paris; M.A., University of Nebraska; Ph.D., University of Michigan. Professor of German and Russian.

Patrick L. Alston, 1971. B.A., St. Patrick's College; M.A., St. Paul's College; Ph.D., University of California. Professor of History.

Kenneth M. Alvares, 1971. B.A., Indiana University; M.A., Ph.D., University of Illinois. Professor of Psychology.

Beverly Amend, 1969. B.S.H.E., West Virginia University; M.Ed., Arizona State University; Ed.S., Bowling Green State University. Assistant Professor of Home Economics.

Mary L. Amos, 1969. B.S., North Texas State University; M.A.L.S., University of Michigan. Associate Professor of Library and Educational Media.

Dennis M. Anderson, 1968. B.A., Oberlin College; M.A., Ph.D., Northwestern University. Assistant Professor of Political Science.

Gregory R. Anderson, 1980. B.A., Augustana College; M.S., University of Illinois. Instructor of Home Economics.

Roger C. Anderson, 1967. B.A., University of Minnesota; M.A., Ph.D., University of Wisconsin. Associate Professor of Political Science.

Thomas D. Anderson, 1964. B.A., M.A., Kent State University; Ph.D., University of Nebraska. Professor of Geography.

A. Rolando Andrade, 1977. B.A., B.D., Phillips University; M.A., Ph.D., University of Oklahoma. Assistant Professor of Ethnic Studies.

Charles H. Applebaum, 1969. B.S., Case Western Reserve University; M.S., Ph.D., Rutgers University. Associate Professor of Mathematics and Statistics.

Susan Tamke Arpad, 1975. B.A., Tulane University; M.A., Louisiana State University; Ph.D., University of Delaware. Associate Professor of Popular Culture, Director, Women's Studies Program.

Mark F. Asman, 1966***. B.S., M.B.A., Bowling Green State University; Ph.D., University of Missouri. Associate Professor and Chair of Accounting and Management Information Systems.

Thomas W. Attig, 1972. B.A., Northwestern University; M.A., Ph.D., Washington University. Associate Professor of Philosophy.

Gerald Auten, 1977. B.A., Hope College; M.A., Ph.D., University of Michigan. Associate Professor of Economics.

Thomas C. Bach, 1965. B.S., M.Ed., Bowling Green State University. Assistant Professor of Industrial Education and Technology.

Pietro Badia, 1963. B.A., M.A., Kent State University; Ph.D., Adelphi University. Professor of Psychology.

Walter W. Baker, 1967. B.M., M.M., Oberlin Conservatory of Music; D.M.A., University of Michigan. Associate Professor of Music Performance Studies.

Frank Baldanza Jr., 1957. B.A., Oberlin College; M.A., University of Chicago; Ph.D., Cornell University. University Professor; Professor of English.

Gioacchino Balducci, 1968. Ph.D., University of Naples. Associate Professor of Romance Languages.

Joseph K. Balogh, 1949. B.S., Pennsylvania State University; Litt.M., Ph.D., University of Pittsburgh. Professor of Sociology.

Ron F. Bandy, 1968. B.F.A., Ohio University; M.F.A., University of Florida. Associate Professor of Art.

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Susan A. Barber, 1973. B.A., St. Lawrence University. Instructor in Health, Physical Education and Recreation.

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Accessibility Code

- AA** Totally accessible
A Accessible with telephones, fountains; no accessible restrooms
B Accessible first floor only, limited facilities
C Totally accessible, limited facilities

Buildings with no designation are considered nonaccessible.

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74 Delta Tau Delta Fraternity
75 Sigma Nu Fraternity
76-79 Harshman Quadrangle
76 Anderson Hall
77 Bromfield Hall
78 Chapman Hall
79 Dunbar Hall
80 Mileti Alumni Center, **AA**
81-84 Kreischer Quadrangle
81 Ashley Hall
82 Batchelder Hall
83 Compton Hall
84 Darrow Hall
85 Health Center, **A**
86 Moore Musical Arts Center, **AA**
87 Student Recreation Center, **AA**
88 Ice Arena, **B**
89 Information Center
90 Popular Culture Center
91 Delta Zeta Sorority
92 Guest House
93 Home Management House
94 WBGU-TV
95 Heating Plant
96 Eppler Center
97 Alpha Phi Alpha Fraternity
98 Delta Sigma Theta Sorority
99 Kappa Alpha Psi Fraternity

