
Bowling Green State University



Graduate Catalog

Offering degrees in the colleges of:

Arts and Sciences

Business
Administration

Education and
Human Development

Health and
Human Services

Musical Arts

Technology

2000 ♦ 2002

University Organization

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Address General Correspondence to:

Office of the Graduate College
Bowling Green State University
Bowling Green, Ohio 43403-0180

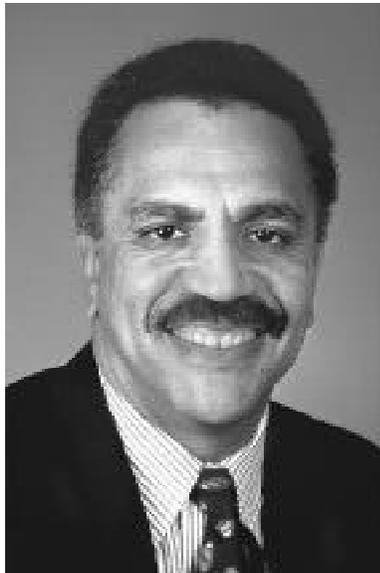
Call for General Information:

The Graduate College (419) 372-2791
Sponsored Programs and Research (419) 372-2481

Address Specific Inquiries to the Following Offices:

<u>Office</u>	<u>Location</u>	<u>Telephone</u>
Career Services	360 Student Services Bldg.	(419) 372-2356
Student Employment	315A Student Services Bldg.	(419) 372-2865
Financial Aid	231 Administration Bldg.	(419) 372-2651
Graduate Registration	110 Administration Bldg.	(419) 372-7970
International Programs	1106 Offenhauer West	(419) 372-2247
Off-campus Housing	Ground Level Moseley Hall	(419) 372-2458
Office of Registration and Records	110 Administration Bldg.	(419) 372-8441

Message from the President



Bowling Green State University is a place that we want you to consider for your graduate education. There are several reasons, not the least of which is that special feeling of warmth and welcome that appeals to many of our graduate students. They feel comfortable here because this is a university that places a great deal of emphasis upon providing the services and learning atmosphere that help make the graduate experience successful.

Beyond that, though, what particularly attracts students to Bowling Green is the caliber of the graduate faculty and our facilities, especially the libraries, laboratories, and computer resources. The faculty include active scholars and researchers and they set high standards, interact closely with students to help them attain success, and often involve students in their own research projects.

We know the value and impact that your graduate degree and specialization will have upon your career and we want to ensure that your graduate education at Bowling Green is the best it can possibly be. That is why we take great care in providing the education and services that make attaining a graduate degree at Bowling Green both rewarding and enjoyable.

At Bowling Green we offer a wide range of graduate degrees, as indicated in the pages of this catalog. Our programs are highly regarded around the country; in fact, *U.S. News and World Report* has ranked the industrial-organizational psychology program among the top three in the country.

There is excitement and opportunity at Bowling Green. In short, our students appreciate the challenges of graduate education at Bowling Green and we are confident that you will as well.

Please feel free to call upon anyone in the Graduate College for assistance. We're always glad to help!

Sincerely,

Dr. Sidney Ribeau
President



Message from the Vice Provost for Research and Graduate Dean



Dear Graduate Students:

Welcome to the Graduate College of Bowling Green State University. You are entering graduate work at a challenging time. In a world of global interdependence and a society driven by knowledge, graduate education can prepare you for a rewarding career and provide the skills necessary to control your own future. Take advantage and ownership of this opportunity. We are building a community here—it is our relationship together that will determine the success of graduate school.

It is our goal that the Graduate College will help you meet the challenges and responsibilities that lie at the heart of graduate education. We want to partner with you, the faculty, your graduate student colleagues, Graduate Student Senate (GSS), and the Graduate Student Enhancement Program (GradSTEP) to make your tenure at BGSU a rich and fulfilling academic and social experience.

I look forward to meeting you soon.

Sincerely,

Steven Ballard
Vice Provost for Research and
Dean of the Graduate College

Message from the President of Graduate Student Senate

Dear Graduate Student,

Welcome to the Graduate College at Bowling Green State University! You are entering BGSU at an important and exciting time. The construction of the new Student Union and the technology infrastructure project will both greatly enhance the learning environment here at BGSU. Use this *Graduate Catalog*, in conjunction with the Student Handbook, as a primary source of information throughout your graduate career. In addition, the Graduate Student Senate (GSS) can serve as a resource and proponent of graduate student issues.

Bowling Green State University offers you many opportunities with its diverse student body, broad spectrum of programs, and unrelenting focus on being a premiere learning institution. The quality of faculty, staff, and your fellow classmates is exceptional and will help you in achieving your goals. Graduate students play an important and essential role in higher education. For many, the dual role of being a teaching or research assistant and also a student brings with it many challenges. The GSS understands the demands of these roles and can assist you in finding and maintaining a balance between your academic demands and personal needs. During the course of the year, GSS will offer many activities specifically designed for graduate students. We encourage you to attend as many of these as possible.

Welcome and thank you in advance for your contributions to the graduate community here at Bowling Green State University. GSS wishes you the best in your academic and personal growth and success, and during your graduate career.

Sincerely,

President
Graduate Student Senate
707 Administration Building
(419) 372-2426
GSS@bgnet.bgsu.edu
www.bgsu.edu/studentlife/organizations/GSS

MISSION STATEMENT OF THE GRADUATE STUDENT SENATE (GSS)

The mission of the Graduate Student Senate (GSS) is to represent the interests of graduate students at BGSU; to monitor and promote the welfare of graduate students; and to support graduate students in academic, professional, personal, and social endeavors. To accomplish this mission, the GSS sponsors many recreational, social, cultural, and intellectual activities for graduate students. The GSS works with many BGSU resources, including the Graduate College and the division of student affairs to help enhance "The Graduate Community" at Bowling Green State University.

Accreditation

The University is fully accredited at the bachelor's, master's, and doctoral levels by the North Central Association of Colleges and Secondary Schools. The University is a member of the National Association of State

Universities and Land Grant Colleges, the Midwest Association of Graduate Schools, the Council of Graduate Schools, and the Central States Universities, Inc.

Changes

While every effort is made to provide accurate and up-to-date information, the University reserves the right to change without notice statements in the Bowling Green State University *Graduate Catalog* concerning rules, policies, fees, curricula, courses, or other matters.

Courses may be closed because of limited resources or facilities, or cancelled because of unavailability of faculty or insufficient enrollment.

Elected by the graduate faculty and

chaired by the dean designate of the Graduate College, the Graduate Council is responsible for advising the dean regarding the goals and directions of graduate education. The Graduate Council has the authority to make policy and curriculum changes that do not appear in this publication. A copy of the most current policy is available in the Graduate College. If a rule or policy has been changed since the publication of the current catalog, the change supersedes the catalog.

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The Graduate Catalog is available on the World Wide Web at:
<http://www.bgsu.edu/colleges/gradcol/>

2000 ✦ 2002

The University

The Academic Community

Bowling Green State University is situated on a 1,338-acre campus with more than 100 buildings. The University offers more than 165 undergraduate degree programs, 15 master's degrees in over 60 fields, two specialist degree programs, one Ed.D. program, and Ph.D. programs in 16 fields.

At the center of the University's academic community are the 723 full-time faculty members, who are engaged in teaching, research, and public service activities. A diversified faculty committed to improving the quality of the learning

environment is recognized as one of the University's major resources. Bowling Green's faculty are national and international experts in their fields. Faculty expertise is in demand from business, government, education, and social agencies, providing important links between the University and the public. Not only are many faculty award-winning researchers, many are award-winning teachers. They are also authors, who have written texts on topics as diverse as the subjects they teach, and their writings have appeared in the top journals in their field.

History of the University

Bowling Green State University retains the personal atmosphere of its early years as a small institution, while also offering the full range of educational opportunities that is expected of a large university. Established in 1910, Bowling Green opened its doors in 1914 to 15 faculty members and 158 students, all of whom were studying to be teachers. Today, the University

has over 19,000 students on its main campus, including approximately 2,700 graduate students. Degree programs are offered through the colleges of Arts and Sciences, Business Administration, Education and Human Development, Health and Human Services, Musical Arts, and Technology, and through the Graduate College.

The Campus

Included among the more than 100 buildings on the Bowling Green campus are some that were completed as early as 1915; many of these have been refurbished to preserve their original structure. Most are equipped with ramps and ground-level entryways for the disabled.

Libraries

Jerome Library is the focal point of the University's intellectual activity. Located in the center of campus, the library houses more than six million items, including books, journals, periodicals, microforms, government documents, and other materials. Special sections of the library include the Historical Collections of the Great Lakes, containing materials on the shipping industry's past and present; the Sound Recordings Archives; and the Popular Culture Library, which contains a vast assortment of books, posters, magazines, and other materials of popular appeal. In addition, the Center for Archival Collections has primary source material on Northwest Ohio as well as the University's rare books and special collections. Bowling Green State University's Popular Press is located in Jerome Library.

The Ogg Science and Health Library in the Mathematical Sciences Building houses

a collection of material related to the physical sciences, health, computer science, medical technology, mathematics, and technology. The University Data Archives, home to ICPSR and other data sets, is also located in the Ogg Library.

The libraries' Personalized Research Consultation Service (PERCS) program is available to all graduate students working on a thesis, dissertation, or a MBA 691 paper. The PERCS program offers graduate students an opportunity to work with a librarian to conduct a computerized literature search.

The libraries of Bowling Green State University participate in OhioLINK, a statewide resource sharing and research development project sponsored by the Ohio Board of Regents. The system involves state-of-the-art automated access to holdings at nearly every college and university library in Ohio, coupled with physical and electronic document delivery.

Jerome Library is also the site of graduate education in Library Science. The program is offered in cooperation with Kent State University and students apply through Kent for admission and financial aid. Contact (330) 672-2782 for more information.

The University

Research and Other Facilities

In addition to its libraries, the University provides research facilities and equipment to serve students in a wide range of disciplines. The science complex features modern laboratories and sophisticated equipment as well as an experimental animal research facility and the Physical Sciences Laboratory Building—including a 118-seat planetarium and an observatory. The Electron Microscopy Center is one of the finest in Ohio, and in 1991 acquired a state-of-the-art scanning electron microscope.

Art facilities with specialized studios, including an electronic art studio offering computer assistance to artists, enhance the cultural life of the community. An attractive art gallery located in the newly renovated Fine Arts Building annually features works by students and faculty, as well as traveling exhibits. Photography laboratories are available at several campus locations.

A communication studies building houses the campus daily newspaper, *The BG News*, and two campus radio stations—WBGU-FM, a non-commercial station, and

WFAL-AM, a commercial station. The University also maintains WBGU-PBS, a Public Broadcasting Service affiliate, in a separate facility.

Instructional Media Services, located in the Education Building and in Olscamp Hall, provides production assistance for computer graphics, photographs, and video. Additionally, graduate students may request classroom equipment and help with multimedia presentations from IMS.

The Moore Musical Arts Center houses two concert halls. Free concerts, many featuring internationally known performers, are scheduled throughout the year. Also located in the Center are practice rooms, rehearsal halls, studios, and an electronic recording studio.

For recreation and fitness, the Student Recreation Center houses 14 handball/racquetball courts, a running track, two swimming pools, and basketball/volleyball courts. Other recreational facilities include an 18-hole golf course, an outdoor fitness trail, 25 tennis courts, and an indoor ice rink.

The University provides students, faculty, and staff with access to diverse computing capabilities through several large-scale, mini-, and microcomputers. DEC VAX 6620 and 8650 computers are available for interactive use with FORTRAN, PASCAL, and other popular computer languages from terminals located in Hayes Hall and in other areas on campus.

An IBM 9121 is available for batch processing from computing service centers in the Business Administration Building and other locations on campus. An IBM 9221 is available for interactive statistics.

There are ten laboratories equipped with IBM and/or Apple Macintosh microcomputers. Access to the Cray Y-MP 8/64 at the Ohio Supercomputer Center is available through an inter-campus network.

A consultant is available in the Faculty/Staff/Graduate Student Workroom to help users with microcomputer or mainframe software (such as statistical packages) supported by the University Computer Services. The University Computer Services' Facilities Guide contains a complete overview of the University's computing resources. This guide is available on the document rack outside of 100 Hayes Hall.

All students receive BGNet accounts that provide access to Internet services, including the World Wide Web, electronic mail, and local and global news groups. The University's web site provides a variety of student information online. The web site can be accessed at <http://www.bgsu.edu/colleges/gradcol/>.

Computer Resources

Professional Travel Support

Travel funds available through the departments are used to encourage and support graduate student attendance, participation, and paper presentations at regional and national conferences and professional meetings. To be eligible for a travel award, graduate students must (1) be fully admitted (i.e., without conditions) to a BGSU graduate degree program, (2) be in good academic standing, and (3) be enrolled

at the time of the conference (preference is given to graduate students registered for at least 12 hours).

Thesis/Dissertation Support

Support funds available through the departments are intended to assist graduate students in meeting expenses of their research or creative activities. Awards may be made to (1) Ph.D. candidates engaged in dissertation research, (2) master's

Research Support

The University

students involved in thesis research under Plan I, and (3) M.B.A. students completing research projects for GBA 691. Only one award per degree may be granted. In order to be eligible, applicants must (1) be in good academic standing, (2) be enrolled at BGSU (preference is given to graduate students enrolled for at least 12 hours), and (3) have an approved topic. Applicants whose research involves collection of any kind of information from or about people by survey, interview, testing, observation, examination, specimen collection, or review of records must obtain prior approval from the Human Subjects Review Board. Applicants whose research involves laboratory animals must obtain prior approval from the Animal Care and Use Committee.

Applications for professional travel and/or thesis/dissertation support should be made directly to the graduate coordinator of each unit receiving funds. Applicants are encouraged to apply early to prevent delays in their research.

Shanklin Award

The Graduate Student Senate supports the annual Shanklin Award competition for

the best graduate student research papers in three areas: arts and humanities; social sciences; and mathematics, life, and physical sciences. Finalists give public presentations and receive cash awards for first and second places. The competition takes place during the spring semester and the review committees are comprised of faculty and graduate students. Students should contact the Graduate Student Senate for more information.

Distinguished Thesis and Dissertation Awards

The Graduate College grants a Distinguished Thesis and a Distinguished Dissertation Award annually to honor outstanding research at the master's and doctoral levels. These awards consist of a student honorarium, a certificate of citation, and an award of recognition for the thesis/dissertation advisor. In addition, award winners automatically become the Graduate College nominee for various other regional and national awards. For more information about the awards and nomination procedures, contact the Graduate College.

Centers and Institutes

Center for Archival Collections

Located on the fifth floor of the Jerome Library, the Center for Archival Collections preserves and makes available to researchers archival and manuscript material relative to Northwest Ohio, Great Lakes, and the University.

Among the materials are local government records, newspapers, census records, photographs, and rare works concerning the 19 counties and Great Lakes area served by the Center. The archival collections contain all Bowling Green State University institutional records deemed of historical value, including *The BG News*, yearbooks, and other University publications. These records also include special collections reflective of the academic interests of faculty and established graduate programs at the University, including education, student affairs, history, literature, and political science.

Center for Biomolecular Sciences

The Center for Biomolecular Sciences (CBMS) is a collaborative research/teaching venture of faculty from three colleges, all of whom are active in research at the dynamic interface between the chemical and biological sciences. At this interface, scientists

apply molecular-based modes of thinking and experimental techniques to grapple with biological phenomena at their most fundamental, molecular level. CBMS faculty collaborate on research and instrumentation grants, interdisciplinary courses, and joint research projects. The interplay of structure, function, and dynamics at the molecular level provides the unifying research focus for the Center. Center faculty use a variety of techniques ranging from molecular genetics to biochemistry, from bioinformatics to spectroscopy, kinetics, and thermodynamics. Their research aims to elucidate molecular structure-function relationships fundamental to biological processes. The fundamental insights gained by such work are leading to whole new technologies for meeting societal needs. Thus, the Center also facilitates academic/industrial cooperation with biotechnology enterprises in NW Ohio. The Center sponsors visiting scientists, symposia, technical workshops, and weekly graduate seminars. CBMS faculty have close ties with the Center for Photochemical Sciences; the Center for Microscopy and Microanalysis; the Center for Neuroscience, Mind, and Behavior; and the Center for Material Sciences.

The University

Center for Evaluation Services

The Center for Evaluation Services (CES) is housed within the College of Education and Human Development. The primary purpose and function of this research center is to concentrate resources in order to compete effectively for externally-funded projects that involve evaluation of practice, policy, projections, and other initiatives in the fields of education and human services. CES also carries out demonstration projects that test intervention and training models. CES serves the BGSU community by providing financial, educational, and consulting services to BGSU students, faculty, and staff.

Center for Family and Demographic Research

The Center for Family and Demographic Research (CFDR) is dedicated to research, training, and service in demography. The core research mission of the CFDR is to facilitate interdisciplinary research on policy-relevant population issues specifically related to the health and development of children, youth, and families. The research conducted at CFDR focuses on public health questions. The central training goals are to teach students demographic methods and perspectives as well as the integration of disciplinary approaches in analysis of social change and social problems. The primary service aim is to provide information and data services to the broader research and policy community to assist in addressing pressing social problems. The Center for Family and Demographic Research can bring the knowledge and skills of demographic and social researchers to bear on a great variety of public health issues in Ohio, and can apply knowledge generated from national-level analyses to the Ohio context.

Center for Materials Science

The Center for Materials Science is an interdisciplinary center that promotes research on the characterization, synthesis, production, and simulation of materials and their properties. The Center sponsors an exchange program with the State Key Institute of Crystal Materials at Shandong University in China and sponsors visiting scientists who wish to perform research with Center faculty. The Center also coordinates courses in materials science that are available at the undergraduate and graduate levels, and offers a minor concentration in the field.

Center for Microscopy and Microanalysis

The Center for Microscopy and Microanalysis provides support for instructional activities of the University faculty, staff, and students. It is also a resource accessed by both academic and industrial scientists in the Ohio/Michigan region, especially for research employing high resolution microscopy and/or computer-intensive image analysis. The Center houses equipment for light microscopy (LM), transmission electron microscopy (TEM), scanning electron microscopy (SEM), energy dispersive x-ray spectrometry (XDS), and image processing (IP). A communications node links the light and electron optical instruments to the central computer network for sending images and other communications over the Internet. Technical staff are available to provide information and services to users.

Center for Neuroscience, Mind, and Behavior

The Center for Neuroscience, Mind, and Behavior is an interdisciplinary graduate research center composed of researchers from the departments of Biological Sciences and Psychology. The Center coordinates, supports, and promotes research, training, and public outreach in behavioral neuroscience. Behavioral neuroscience, an interdisciplinary study of nervous systems, behavior, and psychological processes, is one of the fastest growing and most exciting areas in science today. The research within the Center is designed to provide a full understanding of nervous system function at the behavioral level. This integrative approach to neuroscience and behavior is the basis of an energetic and dynamic center that provides students and faculty with a deeper and fuller understanding of nervous system function.

Center for Photochemical Sciences

The Center for Photochemical Sciences is a prototype research/teaching entity crossing the traditional disciplinary boundaries of chemistry, biology, and physics to create a unique interdisciplinary approach to the photochemical sciences—the interaction of light with matter. Research concentrations include photochemistry, photophysics, photobiology, photopolymer science, and spectroscopy. The Center provides a vital link between academia and industry in the development of new technologies. Advances in imaging sciences,

medicine, and stereolithography are dependent on the photochemical sciences. Program offerings of the Center include short courses for industry, major symposia, undergraduate research opportunities, postdoctoral positions, a visiting scientist program, and a unique Ph.D. program in the photochemical sciences. The Center serves as a clearinghouse for information relevant to the photochemical sciences by publishing a scientific newsletter which is currently distributed to more than 7,000 scientists in 46 countries.

Center for Policy Analysis and Public Service

The Center for Policy Analysis and Public Service is a university-based policy research center. The Center promotes an interdisciplinary approach to providing research in public policy and public affairs.

In all of its endeavors, the Center draws upon the expertise of University faculty and staff to provide productive relationships with public and private agencies. Additionally, the Center brings together federal, state, and local government officials to discuss key policy issues; establishes partnerships with other state and national centers for research in public policy; encourages civic education and meaningful citizen involvement; works closely with organizations throughout the region to provide technical assistance, applied research, and training; assembles teams of faculty, staff, graduate students, practitioners, and other experts to address areas of current and emerging public concern; and disseminates the findings of these collaborative efforts through reports, programs, and publications. Some illustrative projects of the Center include: strategic planning for community and economic development organizations; education about the organization, delivery, and finance of local government services; environmental policy research; GIS (geographic information system) mapping for policy makers; customized training for nonprofit boards; technical assistance to local governments and nonprofit organizations; and survey research.

Historical Collections of the Great Lakes

The Historical Collections of the Great Lakes collects, preserves, and makes accessible to scholars, students, and the public significant historical materials documenting the history of the American and Canadian Great Lakes region. Holdings include books, pamphlets, manuscripts,

photographs, periodicals, marine architectural drawings, maps, and navigation charts. HCGL houses manuscript and archival materials generated by private individuals, institutions, and organizations as well as by state and federal agencies from the Great Lakes region. The specialized book, pamphlet, and periodical collections complement the primary sources and facilitate research. Approximately 130,000 photographs depict vessels, people, and ports of the Great Lakes region from the late nineteenth century to the present. Reference holdings of published and unpublished material include approximately 10,000 vessel histories and a 500-volume collection of newspaper scrapbooks.

Institute for Psychological Research and Application

The Institute for Psychological Research and Application (IPRA) offers a wide range of professional services to organizations in both the private and public sectors. The Institute has assisted clients in such areas as personnel selection and evaluation, recruitment, training, individual and team development, program evaluation, employee health and safety, turnover assessment and reduction, quality improvement, organizational development, and assessment and improvement of job satisfaction and other employee attitudes. IPRA works with organizations to customize and implement well-planned and researched solutions that produce results congruent with the organization's intended goals. IPRA was created in 1989 as part of the Academic Challenge Grant Program awarded to the Industrial/Organizational Psychology Program in the Department of Psychology. Since its inception, IPRA has provided services to over 50 organizations.

Institute for the Study of Culture and Society

The Institute for the Study of Culture and Society, established in 1995, promotes humanistic research and education at the University and nationwide. Its programs include: fellowships for advanced research and art making by faculty from BGSU and other institutions; research workshops and ongoing reading groups for faculty and graduate students; and public presentations of new work in the humanities, arts, and related areas of inquiry through lectures, lecture series, colloquia, community talks, and interdisciplinary cluster groups. In particular, ICS stresses work of an interdis-

The University

ciplinary nature and is dedicated to understanding cultural history, to assessing the impact of media on culture and society, and to providing a forum for fresh thinking about the humanities and the arts.

Management Center

A division of the College of Business Administration, the Management Center offers educational training, management development, consulting, and research assistance to business, industry, and other public and private institutions. The Center has assisted clients in areas such as strategic planning, market analysis, feasibility studies, acquisition analysis, regional economic development, profit improvement, management development, sales forecasting, and inventory management.

Martha Gesling Weber Reading Center

The Martha Gesling Weber Reading Center helps both elementary and secondary school children improve their literacy skills by offering a variety of assessment and developmentally appropriate reading programs for a nominal fee. Graduate students participate by first assisting the professional diagnostic staff and later conducting literacy assessments under the supervision of diagnostic staff and graduate reading faculty. In addition, reading graduate students provide instructional interventions in a Saturday morning reading program offered in the fall and spring semesters. Assessment services are provided for BGSU students as well. All interns who work in the Reading Center participate in the Saturday morning intervention program under the supervision of graduate reading faculty. The Martha Gesling Weber Reading Center is affiliated with the Children's Neurological Center of NW Ohio. Graduate faculty in reading provide inservice programs and instruction to area schools and agencies and maintain a record of applied research in all areas of literacy education.

MidAmerican Center for Contemporary Music

The MidAmerican Center for Contemporary Music coordinates and supports

contemporary music activities through the dissemination of information, the sponsorship of research, the collection of archival materials, and the presentation of new music concerts and symposia, including the annual New Music & Art Festival and the publication of the festival paper proceedings in the *Contemporary Music Forum*, as well as the Mostly MIDI and Music at the Forefront Series. Outreach activities foster creativity, performance, and education in contemporary music. State-of-the-art music technology studios promote research projects in sound design, video synthesis, MIDI performance, digital editing, and all aspects of computer music applications.

Social Philosophy and Policy Center

In philosophy, the traditional questions of ethics and political philosophy are attracting renewed interest. Another area currently receiving attention is the contribution that philosophers, working with lawyers, economists, political scientists, and other social scientists, can make to the formation of public policy. Founded in 1981, the Social Philosophy and Policy Center (SPPC) focuses on the ethical aspects of public policy questions. The SPPC promotes an interdisciplinary methodology, in which ethical analysis is informed by the results of economics, jurisprudence, and political science.

Statistical Consulting Center

The primary objective of the Statistical Consulting Center is to provide statistical assistance to faculty and graduate students in support of research. Assistance can involve one or more of the following: design of the study, design of a questionnaire, selection of the appropriate statistical method to analyze the data, writing of necessary statistical programs needed to perform the analysis, and the interpretation of the results.

The Graduate College

Purpose

The major function of the Graduate College is to motivate and educate persons at an advanced level to be independent intellectual leaders in their professions and in research. The goal of graduate education is to develop the resourcefulness and responsibility of post-baccalaureate individuals by furthering in them the ability to handle effectively the materials of their field and related human interactions, and to use critically the reports of others, judging both their value and their limitations.

Graduate study involves mastering levels of complexity and generalization that reflect and extend the knowledge and intellectual maturity of accomplished baccalaureate degree holders. Moreover, graduate study must occur in the company of students interested and capable enough to analyze, explore, question, reconsider, and synthesize old and new knowledge and skills.

Graduate work is, therefore, much more than the passing of a particular number of

courses and the fulfillment of certain minimum requirements. One of the important goals of the Graduate College is to help students make the best use of the University's resources in their pursuit of a mature and thorough understanding of significant problems. Students should consider themselves co-workers with other students, scholars, and teachers in cooperative intellectual endeavors on a high level.

The degree of Doctor of Philosophy is offered in the fields of American Culture Studies, Biological Sciences, Communication Disorders, Higher Education Administration, English, History, Interpersonal Communication, Mass Communication, Mathematics, Philosophy (applied), Photochemical Sciences, Psychology, Sociology, and Theatre. The degree of Doctor of Education is offered in the field of Leadership Studies. Master's degrees are awarded in almost all academic departments and several interdepartmental areas.

Graduate Faculty

The Graduate Faculty is composed of those members of the University faculty who are actively engaged in research and teaching at the graduate level. Membership constitutes recognition of scholarly excellence and professional creativity.

Members of the Graduate Faculty may teach courses at the 500 through the 700 levels, serve as members of master's and doctoral committees, direct master's theses

and doctoral dissertations, vote in Graduate College elections, and serve on the Graduate Council. Duties and privileges of Graduate Faculty are described in Article VIII of the Academic Charter.

In order to maintain the Graduate Faculty as a viable body, the qualifications of the members are reviewed periodically. A list of Graduate Faculty is provided in the final section of this catalog.

Graduate Student Senate

The Graduate Student Senate (GSS) is an elected body, composed of and administered by graduate students, with the objective of representing the interests of graduate students at Bowling Green State University. GSS serves an important role as liaison between the Graduate College and graduate students. Each graduate program is afforded representation in the Graduate Student

Senate. GSS maintains representation on the various standing committees of the University. In addition to its involvement in academic and financial issues, GSS coordinates a variety of cultural, educational, and recreational events throughout the year.

The GSS holds open meetings every three weeks. Its office is located in 707 Administration Building, (419) 372-2426.

The Graduate College

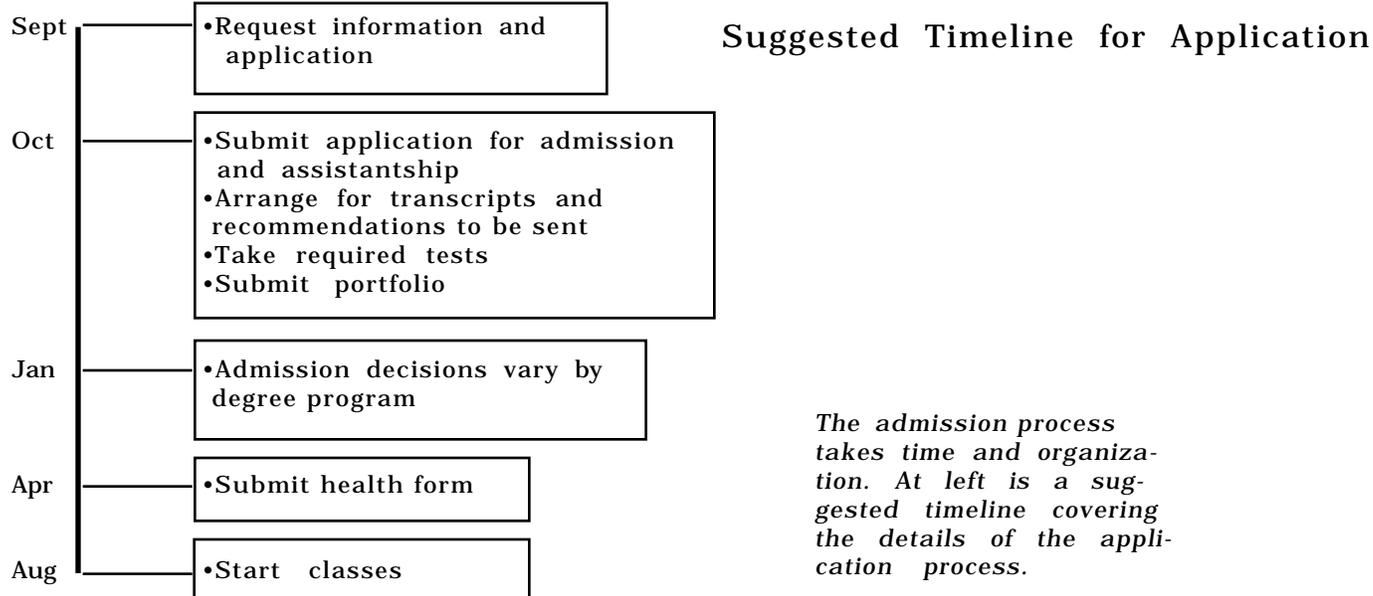
The **Graduate Student Enhancement Program** (GradSTEP) is designed to help the careers of graduate students, before, during, and after earning their degrees. The highlight of GradSTEP's year-round events is a one-week seminar which is generally acknowledged to be one of the top professional development programs for higher education in the nation and is held just prior to fall semester. Because a primary goal of GradSTEP is to improve the performance of teaching assistants and research assistants, the one-week seminar is required as a contractual condition for new graduate assistants. All graduate students, as well as

faculty, are encouraged to attend these sessions. GradSTEP also offers ongoing programs and provides awards to recognize excellence among graduate teaching assistants.

The **Cooperative Education Program** provides an opportunity to serve in a series of professionally relevant cooperative work assignments in business, industry, government, and nonprofit organizations. Academic credit may be awarded for the off-campus work experience, subject to approval from the academic area and the Graduate College.

Professional Development Opportunities

Graduate Admission



Admission Categories

There are three graduate admission categories: regular admission, conditional admission, and graduate non-degree.

Regular Admission

An applicant achieving high scholarship in previous academic work, especially in the field of study in which he or she wishes to specialize, is eligible for regular admission to the Graduate College contingent upon completion of the application procedures and approval of the degree program and the Graduate College.

Conditional Admission

Conditional admission status may be assigned to an applicant admitted to a degree program with deficiencies in the quality of course work or other admission criteria submitted, contingent upon the recommendation of the degree program and the approval of the Graduate College. To subsequently qualify for regular status, a minimum cumulative grade point average of 3.0 (B), with no grade lower than a B, must be earned during the semester in which the first nine graded hours of approved graduate enrollment are completed. (Degree programs may specify additional requirements of students granted conditional admission status.) If regular status is not achieved during the semester in which the nine hours are completed, the student may be dismissed from the degree program and the Graduate College for one year. A student

with conditional admission status is not eligible for an assistantship until regular status is achieved, but may qualify for assistance through the financial aid and student employment office. For further information, see the Graduate College financial aid brochure.

Graduate Non-degree Status

Graduate non-degree status represents a non-degree classification within the Office of Continuing Education, International, and Summer Programs. This classification allows students to pursue personal or professional goals by taking graduate courses without enrolling in a degree program. Admission to graduate non-degree status and successful completion of non-degree course work neither indicates nor assures subsequent admission to a degree program, nor does it qualify a student for financial aid.

Graduate non-degree students who wish to be considered for admission to a degree program should follow the procedures outlined in the next section: Degree Program Admission Requirements. Upon acceptance to a degree program, a student's admission classification is changed to regular or conditional admission status.

Some courses completed while on graduate non-degree status may be applied toward a degree program, contingent upon the approval of the degree program and the Graduate College. It is recommended that no more than nine hours of graduate-level

Graduate Admission

course work be taken while the student is a non-degree graduate student. In high demand academic areas, degree candidates will have priority over graduate non-degree

students in registering for courses. Some specialized and clinical areas of study are not available for enrollment with graduate non-degree status.

Applicants to graduate degree programs at the University must possess a bachelor's degree from an accredited college or university and present evidence of broad and thorough undergraduate preparation that indicates probable success in graduate study. Applicants should also have a purpose which the Graduate College and the degree program to which they apply can foster and advance. Prospective students should keep in mind that graduate study is not merely a continuation of undergraduate study. It demands a higher level of scholarship, emphasizes research and creativity, and requires student initiative and responsibility. Since faculty, facilities, and other resources are limited, it is impossible to admit every interested applicant. Some areas are highly selective in admitting students because the demand for admission is greater in those areas than in others.

Prospective graduate students should consult with the graduate coordinator in the appropriate degree program at the time of application for admission concerning placement and employment prospects for graduates of that particular degree program. The University makes no guarantee concerning employment for graduates of any of its degree programs. However, University Placement Services provides career planning and placement assistance including individual counseling, professional development seminars, an electronic resume referral service, and credential services.

As a general prerequisite to graduate study in a degree program, a student must have met the requirements of this University for an undergraduate major or minor in that field or its equivalent. Further requirements or exceptions applicable to specific fields may be determined by individual degree programs. An applicant to a degree program will be evaluated for admission when the following materials are submitted to the Graduate College:

- (1) the application for admission;
- (2) the \$30 (non-refundable) application fee;
- (2) either the Graduate Record Examinations (GRE) or the Graduate Management Admission Test (GMAT) as specified below;
- (3) the Test of English as a Foreign Language (TOEFL) or the Michigan English

Language Assessment Battery (MELAB) for all non-native speakers of English; and

(5) two official transcripts from **each** institution attended (except Bowling Green State University) which must be forwarded directly from the institution(s). Personal copies of transcripts are not acceptable. Transcripts "Issued to Student" are not acceptable. Applicants must include ALL institutions attend regardless of the number or type of credits taken, terms attended, or whether transfer credits are reflected on another transcript. When temporary transcripts are submitted, acceptance to the Graduate College is granted upon receipt of final official transcripts (showing the date and degree earned) from the institution(s) attended. International applicants must submit **all** materials directly to the Center for International Programs, 1106 Offenhauer West, Bowling Green State University, Bowling Green, OH 43403-0159.

Required Tests

Graduate Record Examinations (GRE)

All applicants for admission to a graduate degree program (other than accounting, business administration, and organization development which require the GMAT) must submit valid scores (scores obtained within the last five years) from the GRE General Test to the Graduate College. Some degree programs require scores from a Subject Test. Please refer to the individual program descriptions in this *Catalog* to determine which programs require this information. The GRE is administered by the Educational Testing Service. If a copy of the current *GRE Information and Registration Bulletin* is unavailable at a nearby institution, write to: Graduate Record Examinations, Educational Testing Service, Box 6000, Princeton, NJ 08541-6000, USA, or on-line via the World Wide Web at: <http://www.gre.org>.

The Praxis Series

Applicants for the Master of Education degree in Curriculum and Teaching in the Division of Teaching and Learning may submit either the GRE or the Praxis II (NTE) scores. The scores required prior to 9/1/99 are the Core Battery tests of General Knowledge and Professional Knowledge. One of the

Degree Program Admission Requirements

Graduate Admission

following scores is required on 9/1/99 and after: Principles of Learning and Teaching (PLT) tests, Grades K-6, Grades 5-9, or Grades 7-12.

The Praxis Series: Professional Assessments for Beginning Teachers is developed and administered by ETS. If a copy of the current *The Praxis Series Registration Bulletin* is unavailable at a nearby institution, write to: Teaching and Learning Division, ETS, Box 6051, Princeton, NJ 08541-6051, USA, or online via the World Wide Web at: <http://www.teachingandlearning.org>.

Graduate Management Admission Test (GMAT)

Valid GMAT scores (scores obtained within the last five years) are required of applicants seeking admission to graduate programs leading to the degrees of Master of Accountancy, Master of Business Administration, and Master of Organization Development. The GMAT is administered by ETS. If a copy of the current *GMAT Bulletin of Information and Registration Form* is unavailable at a nearby institution, write to: Graduate Management Admission Test, ETS, Box 6103, Princeton, NJ 08541-6103, USA, or on-line via the World Wide Web at: <http://www.gmat.org>.

Test of English as a Foreign Language (TOEFL)

Michigan English Language Assessment Battery (MELAB)

Valid TOEFL or MELAB scores (scores obtained within the last two years) are required of all non-native speakers of English applying for admission to the Graduate College. The Center for International Programs provides TOEFL and MELAB information. If a copy of the current *Bulletin of Information for TOEFL* is unavailable at a nearby institution, write to: TOEFL Services, Box 6151, Princeton, NJ 08541-6151, USA, or on-line via the World Wide Web at: <http://web1.toefl.org>.

To obtain the *MELAB Information Bulletin* and registration forms, write to: English Language Institute, Testing and Certification Division 3020 North University Building, The University of Michigan, Ann Arbor, MI 48109-1057, USA. Additional information is available via the World Wide Web at: <http://www.lsa.umich.edu/eli/melab.html>.

Non-native Speakers of English

All non-native speakers of English are

required to take on-campus English proficiency tests before planning the first-semester academic program with the graduate coordinator and before registration. On-campus testing is required of all international applicants whose native language is not English and applicants from Puerto Rico and francophone Canada.

The on-campus English tests are coordinated by the English as a Second Language (ESL) Program. Based on the results of these tests, students may be required to enroll in courses as designated by the ESL Program. Satisfactory completion of ESL courses is mandatory for graduation and continued University funding when students are required to enroll in such courses.

Deadlines

For admission to a degree program, applicants should allow a reasonable amount of time for necessary documents to arrive on campus and to be processed by the appropriate degree program and the Graduate College. International applicants should allow more time for the application process. Graduate non-degree status applicants may be admitted within a relatively short time frame. Prospective students should check with the appropriate program for specific deadlines, in particular those interested in assistantships.

Applicants are admitted to the Graduate College for a specific term only. If an applicant wishes to begin graduate work earlier than the term for which he or she is accepted, the applicant must inform the Graduate College in writing prior to registering for classes. If an applicant wishes to defer admission, he or she may request a deferment for up to 12 months. The deferment request should be submitted to the Graduate College in writing, but is approved or denied by the applicant's degree program. An applicant who has received a deferment must update or verify his or her application prior to initial registration.

An enrolled graduate student is defined as one who:

- (1) is admitted to the Graduate College;
 - (2) is registered and attending classes;
- and
- (3) has either paid the appropriate fees or had the fees paid by the University or by a grant, contract, or assistantship.

Graduate Admission

Graduate Non-degree Admission Requirements

Applicants seeking admission under the graduate non-degree must submit: (1) a completed non-degree application for admission form; and (2) an unofficial transcript, showing highest degree earned. If no transcript is received with the application, verification of the highest degree earned will be undertaken by the Continuing Education, International, and Summer

Programs Office. Applications may be submitted to the Office of Continuing Education, International, and Summer Programs; the Office of Registration and Records; or the Graduate College.

Graduate non-degree status applicants are not required to pay the \$30 application fee or the \$15 admission fee. Test scores and letters of recommendation are not required.

Non-degree Admission Requirements

Cooperative Registration Admission Requirements

Graduate students from the University of Toledo and the Medical College of Ohio who seek to enroll under the cooperative registration agreement must submit a completed cooperative enrollment applica-

tion for the program. Not completing this form may result in holds on grades, registration, and transcript records. The application fee, admission fee, transcripts, test scores, and letters of recommendation are not required.

Cooperative Registration

All graduate students are required to meet the health regulations in effect at the University. A health history form is sent to applicants by the Graduate College when admission is granted. The form must be completed and returned to Student Health Services. Graduates of the University who have a health history form on file are not required to complete another form.

The University requires that every semester all graduate students enrolled for eight or more credit hours on the main

campus must either: (1) indicate in writing that they already have health insurance; or (2) purchase health insurance as arranged by the University. Students may enroll in the health insurance plan offered by the University for one semester at a time or for an entire calendar year. Students also have the option of purchasing coverage for their spouses and/or dependent children through the University plan. Further information is available from Student Health Services.

Health Insurance

If a Plan I (thesis option) master's student has had no registration activity for four or more terms (including summer) and has never registered for thesis research (699), the student must reapply to the Graduate College. Once students are registered for 699, they are considered active.

If a Plan II (non-thesis option) master's student has had no registration activity for four or more terms (including summer), the student must either submit an application for graduation (if all degree requirements will be met within the term) or reapply to the Graduate College before continuing the degree program.

If a doctoral student has had no registration activity for four or more terms (including summer) and has never registered for dissertation research (799), the student must reapply to the Graduate College before continuing the degree program. Once doctoral students are registered

for 799, they are considered active.

Master's and specialist students are considered in good standing if they have a 3.0 grade point average; doctoral students must maintain at least a 3.2 grade point average to be in good standing.

To apply for readmission, a student must submit a completed application to the Graduate College and a letter to the degree program describing the circumstances surrounding his or her absence from the University and requesting readmission. If course work has been taken at another university during the absence, an official transcript must be forwarded directly from the institution to the Graduate College. A degree program may request additional documents for readmission, such as letters of recommendation. After reviewing the request for readmission, the degree program will forward a recommendation to the Graduate College.

Readmission

Graduate Admission

Applying or Transferring to Another Degree Program

Students who are currently admitted to a degree program or are completing a graduate degree and wish to be considered for admission to another degree program must complete the admission process for that particular degree program.

The following conditions must be met before a file can be forwarded for program evaluation:

(1) if the initial application for admission to the Graduate College is more than one year old, the application must be updated or verified. Payment of the \$30 application fee and the \$15 admission fee is required upon transfer from graduate non-degree to degree status;

(2) required test scores must be submitted to the Graduate College;

(3) two official transcripts from each college and/or university attended, unless

previously submitted and currently maintained on file (translations are required if in a language other than English), must be forwarded directly to the Graduate College (copies or official transcripts issued to students are not acceptable). Bowling Green State University transcripts do not need to be submitted;

(4) any specific degree program requirements must be met; and

(5) if a transfer from one degree program to another is requested, the graduate coordinator of the degree program from which the transfer is being made must be notified by the student.

When acceptance to a degree program is granted, the change in admission status will become effective the semester during which the request for transfer was submitted.

Continuing Education, International, and Summer Programs

The College of Continuing Education, International, and Summer Programs, located at 40 College Park, develops and implements quality education programs for a diverse clientele. Programs of interest to graduate students include the Off-Campus Program, Summer Program, and International Program. The Off-Campus Program provides sequences of graduate-credit courses leading to competency, certification, or a degree for students in 25 counties in

Northwest Ohio. The Summer Program offers a summer term that is fully integrated into the academic program of the University. Courses are offered in six-week or eight-week sessions during the summer term. The Office of International Programs coordinates and promotes international student and faculty exchanges while encouraging international awareness on campus and in the community.

Registration

Students must make formal application for admission to the Graduate College prior to registering for classes in order to receive graduate credit. The Office of Graduate Admissions is located at 120 McFall Center.

The University requests that ALL graduate students register for classes at the designated time as printed in the *Schedule of Classes*. This process will allow early evaluation of low enrollment courses and the possible cancellation of sections. Please register early to ensure that the graduate courses you are planning to take are offered. Registration may be completed at academic departments, via the STAR telephone

registration system (see departmental coordinator for information), or at the Office of Registration and Records, 110 Administration Building.

Students who register during continuing student registration will be billed by the bursar. In-person registrations after fees are due must be paid by the last working day prior to the start of the term. Registration after the start of the term must be prepaid. Funded students will automatically be prepaid.

Graduate students who use University services must be regularly registered for credit.

Deadlines

Academic Year

The academic year is divided into two semesters of approximately 16 weeks each and a summer term. The summer term is conducted as a regular part of the academic program. While some courses are offered for the full term, most are offered in one of two consecutive sessions, each complete within itself so that the student may enroll for one session or for both sessions.

Prior to each semester, a schedule of

classes is published listing course offerings for that semester. The schedule is available from Graduate Registration. It is also available at http://www.bgsu.edu/offices/registrar/class_schedule approximately two weeks before class registration each semester.

Students may obtain a Summer School Schedule by writing to Summer Programs, 40 College Park.

Schedules

Adds and drops (including those for audited courses) are allowed at the discretion of the student (with instructor's and graduate coordinator's approval) for the first fourteen calendar days of a semester (the first three calendar days of a summer session). The Graduate College will not approve an add of a regularly scheduled class nor a change to or from audit after the fourteenth day.

Students may drop a course or withdraw from the University between the second and ninth week of a semester and be eligible for a WP (withdraw passing), contingent upon satisfactory performance in the course. To be eligible for a WP, a graduate student must be doing C work or better. The signatures of the instructor, the coordinator, and the Graduate College dean designate are required.

After the ninth week, students who withdraw from a course receive a WF (withdraw failing) unless a WP is authorized by the dean designate of the Graduate College for serious documentable contingencies such as an extended illness.

For summer terms, students may drop a course or withdraw from the University and receive a WP contingent upon satisfactory performance in the course if the drop or withdrawal occurs prior to the following deadlines:

during the fifth week of an eight-week session

during the fourth week of a six-week session

See the calendar published by the Office of Registration and Records for specific deadlines for withdrawing from a course during a particular summer session.

Changes in Registration

Registration

Dismissal/ Withdrawal

Dismissal from a Course

The University reserves the right to withdraw any graduate student from any course when the student's continuance is not in the interest of the student, the class, or the University. The dismissal of a graduate student from a course and the grade and/or notation in the official record are determined by the dean designate of the Graduate College and the vice president for academic affairs, after consultation with the instructor in the course. Students have the right of appeal as prescribed in the *Student Affairs Handbook*.

Cancellation of Registration

The student's class schedule may be

cancelled if the fees and charges are not paid prior to the beginning of each semester.

Withdrawal from the University

Students who wish to withdraw from the University in good standing must obtain the permission of the dean designate of the Graduate College. After classes begin, a student who drops all classes (even if enrolled for only one class) must withdraw from the University at the Graduate College. If a student leaves the University without proper notice and permission, he or she receives a grade of WF in all courses and is not entitled to any refund of fees.

Audit

Students who wish to attend a class without receiving credit for it may register to audit that course. A per-hour instructional fee is charged as if the student had registered for the course for credit. Audits do not

count toward minimum registration loads, nor do they satisfy degree requirements. Audit registration cannot be processed after the fourteenth day.

Time Limits for Degree and Revalidation

The time limit to complete all degree requirements for master's students is six years from the end of the earliest course used to fulfill degree requirements on the Tentative Degree Program (TDP) and eight years for doctoral students. Students may apply for an extension of up to one calendar year if the request for an extension is made before the time limit has elapsed. Doctoral students may be granted two extensions, not to exceed a total of two calendar years.

If the extension is approved by the graduate coordinator and the graduate dean designate, revalidation of outdated courses (over six but no more than seven years old for master's degrees; over eight but no more than ten years for doctoral degrees) may be necessary.

When necessary, revalidation is accomplished by retaking the course or by special examination determined by the degree program on each outdated course. A charge

of \$25 is assessed for revalidating a course by examination.

Students may not revalidate courses with a grade of C or lower, courses that are internships or other forms of practicum, or courses taken at other institutions.

If the revalidation examination is satisfactory (i.e., passed by a B grade or better), then the original course grade will be retained and the student's transcript will reflect revalidation. If the examination is failed, then no change will be made to the student's record. More than one attempt to revalidate a course by examination is permitted if supported by a recommendation from the graduate coordinator of the degree program and approved by the dean designate of the Graduate College. Application forms to be used in revalidating courses by examination are available in the Graduate College.

Transcripts

An official transcript of a student's record is used 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. An official transcript is not released for a student who is delinquent on any financial obligation to the University or who is not fully admitted. Requests for

transcripts to be picked up in person should be submitted at least 24 hours in advance to the Office of Registration and Records, 110 Administration Building, on the BGSU campus. If ordered from 104 East Building on the Firelands campus, transcripts will take at least one week for processing. Photo identification is required.

Transcripts from other institutions that have been presented for admission or

Registration

evaluation become part of the student's permanent academic file and are not returned or copied for distribution. Students

desiring transcripts covering work completed elsewhere should request them from the institutions concerned.

Bowling Green State University (BGSU), the University of Toledo (UT), and Medical College of Ohio (MCO) sponsor a cooperative graduate program through which graduate students enrolled in a degree program at their home institution may enroll and receive graduate credit for classes offered at the HOST institution. Approval by the graduate dean designate and the program graduate coordinator of the student's home institution is required for each registration. Credit and grades earned count as resident credit (not as transfer credit) at the home institution.

BGSU students who enroll in the cooperative graduate program at UT or MCO are required to complete a minimum of 51 percent of the courses in their graduate degree programs on the BGSU main campus. Part-time graduate students who participate in the program pay the instructional and, if applicable, the nonresident fees at the host institution on a per-hour basis. Instructional and nonresident fees will be waived by UT or MCO for a BGSU student who either pays full-time instruc-

tional and nonresident fees as a graduate student or who has a fee waiver as a graduate assistant.

A full-time cooperative graduate student must be registered for 11 graduate credits per term at BGSU. UT or MCO students must be registered for 12 graduate credits. If the student does not complete the full-time registration requirement at the home institution (i.e., withdraws from courses during the term), then the student will be billed retroactively by the host institution and their grades at the host institution will be withheld.

Graduate students who are funded at BGSU may enroll for a maximum of six credits per term at the host institution with a tuition grant for all fees. Graduate students who are funded at UT or MCO may enroll for a maximum of six credits per term at the host institution with a tuition grant for instructional fees. However, a tuition grant is provided only when registration at the home university represents at least two-thirds of the total (home + host) registration for the academic term.

Cooperative Registration

Student Records

The Family Educational Rights and Privacy Act of 1974 provides for student access to educational records that include personally identifiable information, and limits the release of such information without the student's explicit consent.

The University has developed a policy governing the inspection, review, and release of such information obtained in a student's educational record. This policy is based upon regulations issued by the federal government. The Student Records Policy can be found in the *Student Affairs Handbook* which is distributed by the Office of Student Affairs, 305 Student Services Building, BGSU main campus.

Change of Address

To assure prompt receipt of grades and schedules, students should report any change in their address to one of the following offices: Admissions, Bursar, Financial Aid, Student Employment, Graduate College, Student Housing and Residence Programs, or Registration and Records.

Change of Personal Information

Changes to student personal information should be reported to the Office of Registration and Records. For name changes, two documents are required, one with the new name and one with the former name. One of these must contain a photograph of the student. Acceptable documents include a court order, a marriage license, or a driver's license.

Veterans Affairs Office

The Veterans Affairs Office is located in the Office of Registration and Records. The Office certifies all students eligible for Veterans Affairs educational benefits under Chapters 31 (Title 38, Code of Federal Regulations), 30, 32, and 35 (Title 38, United States Code), and 106 (Title 10, United States Code). Students applying for veteran's benefits may need to provide a copy of Member 4 of the DD 214 Form, "Report of Separation from the Armed Forces." Questions should be directed to the Office of Registration and Records, 110 Administration Building.

Registration and Records Policies

Registration

Certifications

Certifications for loan deferments, good student car insurance discounts, health insurance, and degree, scholarship, and enrollment verifications are processed in the Office of Registration and Records, when requested by the student.

Motor Vehicles

Students who operate a motor vehicle while enrolled in the University must comply with state and University motor vehicle regulations. A brochure containing these regulations is available at the Parking and Traffic Division, 104 Commons.

Transfer Credit

Transfer credit courses are those offered by accredited universities or colleges other than Bowling Green State University.

The policy of Bowling Green State University specifies that graduate students may, on their own recognizance, take any course offered or sponsored by another institution for personal or professional development. The transfer of credit received for such external courses to satisfy requirements of a degree program at BGSU depends upon the following:

(1) The course is sponsored or given by a regionally accredited graduate college or university. This of itself, however, does not assure acceptance of the course.

(2) A formal, written petition by the student is required for the transfer of credit. The petition is submitted to the major department for its consideration and recommendation. The recommendation of the department is forwarded to the dean designate of the Graduate College for a decision.

(3) Documentation is required on courses that are "external" or "nonresident" offerings of another university if acceptance of them for degree credit is requested from BGSU. Minimally, the graduate school offering college or university credit must be fully accredited. The course must be listed and described in the catalog offerings or other official publications of the institution. The content of the course must satisfy a requirement in a graduate degree program at the offering institution and be able to satisfy a degree requirement at BGSU. An official transcript is required at BGSU.

(4) Petitions for acceptance of "summer tour" or "travel" type courses must be fully documented so that their academic integrity can be judged. Promotional literature from a tour or travel agency or institutional sponsor is not considered documentation of the

academic character of the course. Minimal documentation submitted by the student should include the following:

a. A photocopy of the course description from the graduate catalog or other official literature of the sponsoring institution;

b. A statement in the institution's graduate catalog or signed by the dean designate of the graduate school that specifies the graduate degree programs in which the course satisfies professional or other degree requirements in the institution offering the course. A viable alternative is a copy of an evaluative statement concerning the course from the department(s) in which it is used to satisfy degree credit;

c. An official transcript from the sponsoring institution following completion of the course.

The minimal documentation on "tour courses" is necessary to evaluate the quality of the course and to determine its applicability to a student's degree program. Many accredited graduate schools offer courses for personal and professional development that carry graduate credit but are not applicable to their degree programs. Official assurance is required.

(5) Bowling Green State University, as a fully accredited university, has a long standing custom of approving the transfer of credit from other fully accredited institutions. It is necessary for a student to petition, in writing, through the academic department for such transfer after the course has been completed. Prior guarantees of any type that a course will be transferable cannot be given. Any prior assurances given by faculty members or staff of Bowling Green State University must be regarded as estimates or opinions. They do not commit the University to a course of action.

Registration

A full-time graduate student is defined as a student registered for eight semester hours.

A graduate assistant is required to register for a minimum of 12 hours of graduate credit per semester during the fall and spring semesters of the academic year unless otherwise exempted by the departmental graduate coordinator and the graduate dean designate. Graduate students who receive an assistantship stipend during the summer term must enroll in a minimum of nine graduate credit hours during that term. Audits do not count toward minimum registration loads; GRAD 600 may. Graduate assistants completing a master's thesis or a doctoral dissertation should consult their

advisers for appropriate registration requirements.

The maximum registration of a graduate student across all summer sessions is 12 hours of regular classes or workshops. With the permission of the dean designate of the Graduate College, a graduate student may add arranged courses to receive credit for more than 12 hours (but usually not more than 15) across all summer sessions.

Excess credit hour loads (beyond 18 hours in an academic semester or beyond the 12-hour limit for summer) require approval from the dean designate of the Graduate College. An excess credit fee of \$50 is charged beginning with the 19th hour and continuing for every hour thereafter.

Credit Hour Load

Costs and Financial Aid

Graduate Assistantships

Graduate students with service assistantships (i.e., teaching, research, administrative, and housing) work a maximum of 20 hours per week when classes are in session. Students with dissertation fellowships (see below) may not engage in any employment during the period of their appointment.

Contractual language states: "because appointees are also required to be full-time students they may not exceed half-time employment (20 hours per week) inclusive of their assistantship duties when classes are

in session. Students with .50 appointments may not have any additional employment, students with .38 appointments may work an additional five hours per week, and those with .25 appointments may work ten additional hours per week. Distinguished fellowship awardees may not engage in any employment during the period of their appointments." (From the Statement of Understanding that accompanies graduate assistant contracts.)

Teaching, Research, and Administrative Assistantships

Graduate assistantships are available through the programs offering graduate degrees. These positions give students financial aid as well as the opportunity to acquire valuable experience. As of fall semester 1999, doctoral students are eligible for stipends from \$4,750 to \$10,500 for the academic year. Positions at the master's level pay between \$3,550 and \$8,200. Both require a registration for 12 hours of graduate credit each semester. Renewals of assistantship awards are possible.

Funding as a graduate student is available for a maximum of two academic years at the predoctoral level and a maximum of four years, depending on the program, at the doctoral degree level. A maximum of six years of funding, depending on the program, is specified for a student who completes both a master's degree and a Ph.D. degree at this university.

To retain an appointment, graduate assistants must be appropriately enrolled, must make satisfactory progress toward a degree, and must perform duties satisfactorily according to the terms of the appointment. A student's funding is terminated if he or she is suspended for ethical or legal misconduct as specified in the Student

Code.

The instructional, nonresident, general, and automobile registration fees are paid by the University during the period of the appointment for graduate assistants. Instructional, nonresident, and automobile fee payments may also be extended as a professional courtesy for the following summer. Registered graduate students not receiving an assistantship during the summer must pay the general fee.

Application forms for assistantships and letters of recommendation should be submitted to the chair or academic program director in the winter preceding the academic year for which the appointment is desired (program literature should be consulted for specific deadlines). At the same time, an application for admission to the Graduate College should be filed. Applications are available on request from the Graduate College or the graduate department. A bachelor's degree is a prerequisite for funding of graduate assistantships. Official certification from the degree-granting institution is required to document completion of all requirements for the baccalaureate degree.

House Director, Graduate Hall Director, and Assistant Hall Director

Eligibility: positions are available to full-time graduate students enrolled in master's or doctoral degree programs.

House Directors

House directors reside in a small group living unit and are responsible for supervising residents, coordinating developmental

programs, and advising executive boards. There are opportunities to gain exposure outside the living environment through a program assignment, including (but not limited to) advising greek governing bodies or acting as the chapter development consultant or community service coordinator.

Costs and Financial Aid

Graduate Hall Director/Assistant Hall Director

Graduate hall directors and assistant hall directors reside in residence halls and are responsible for working with residents, resident advisers, hall government, and coordinating developmental programs. The graduate hall director operates one building of approximately 250 to 370 residents and reports to a full-time complex coordinator. The assistant hall director works closely with a full-time hall director and assists in the daily operation of a building of approximately 950 to 1200 residents.

Graduate house staff receive a stipend and meal plan, and reside in a furnished suite-style room with a private bath. Graduate hall staff receive a stipend, furnished apartment with a private bath, and meal

plan. A tuition grant that covers the instructional, nonresident, and general fees, and parking registration fees is paid by student housing and residence programs. Instructional and nonresident fees are paid for one summer.

Application information can be obtained from Residence Life, 440 Saddlemire Student Services Building, Bowling Green, OH 43403. Phone (419) 372-2011, fax (419) 372-0477.

Applications should be submitted to: Residence Life, Attn. Graduate Staff Selection Coordinator, by mid-January preceding the academic year for which appointment is desired.

Notification is made by Residence Life. Questions concerning available positions should be referred to the above address.

The University awards dissertation fellowships to outstanding doctoral students in the final stage of dissertation research. These awards provide an annual stipend and payment of the instructional, nonresident, general, and automobile registration fees for the term of the assistantship. A dissertation fellowship awardee must be registered for 16 hours, engaged in graduate study, and not otherwise employed. The student is expected to live and work within daily commuting distance of the University

campus, with full access to the resources of the University. If the special needs of dissertation research or cooperative study require that the student should live and work elsewhere, then this must be stated at the time of application for the assistantship. Acceptance of other employment, or a decision to move to another region after the dissertation fellowship has been granted, may require the student to resign the assistantship.

Dissertation Fellowships

Regularly admitted graduate students (excluding those with graduate non-degree status) are eligible to apply for need-based loans and Federal Work Study eligibility.

Applying for Financial Aid

The Free Application for Federal Student Aid (FAFSA) is used to calculate a student's (and spouse's, if applicable) contribution to his or her educational expenses and determine his or her financial need. The FAFSA should be completed as soon as possible after January 1 for consideration for the Federal Perkins Loan, William D. Ford Direct Loans (both subsidized and unsubsidized), and Federal Work Study.

Verification of Information

Applications may be selected for verification. If chosen for verification, students will be asked to provide the Office of Student Financial Aid (SFA) with copies of their federal income tax return and other supporting documentation, as requested. Copies of tax returns and other documents are not

to be sent to SFA unless requested.

Dependent/Independent Status

Graduate students are considered independent for financial aid purposes.

Award Eligibility

SFA begins notifying applicants in April for the following summer, fall, and spring terms. Notification of financial aid eligibility are mailed throughout the academic year as student applications are received.

Please note: Eligibility for federal financial aid may be affected by receipt of a grant covering graduate tuition or other graduate fees. If the tuition grant is not included on the student's initial SFA award letter, the financial aid package may be revised at a later date—and students may be required to return funds already disbursed to them or their bursar account.

Federal Work Study

Eligibility: Available to students enrolled

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at least half-time (6 graduate credit hours) with demonstrated financial need. Note: Students receiving a graduate assistantship are limited to working on campus a *total* of 20 hours per week, including hours worked as part of an assistantship.

Amount: Maximum earnings are based on financial need; average academic year earnings range from \$2,000 to \$2,500. Earnings vary according to wage and number of hours worked.

Application/deadline: Submit the FAFSA as soon as possible after January 1 for priority consideration for the following summer, fall, and spring semesters.

Notification: SFA notifies recipients in writing. Job opportunities are posted by the Student Employment Office or on the Career Services home page: www.bgsu.edu/offices/careers/. Students interview with and are hired by prospective employers.

William D. Ford Federal Direct Subsidized Loan

Eligibility: Available to students enrolled at least half-time (6 graduate credit hours) who have demonstrated financial need.

Amount: Maximum annual loan is \$8,500. Interest does not accrue while student is enrolled for at least six credit hours. Interest rate varies; maximum is 8.25%.

Application/deadline: Submit the FAFSA to determine eligibility as soon as possible after January 1 for the following summer, fall, and spring semesters.

Notification: Student Financial Aid notifies student via a *Notice Of Financial Aid Eligibility* (award letter). Student must sign a promissory note before funds are disbursed.

William D. Ford Federal Direct Unsubsidized Loan

Eligibility: Available to students enrolled at least half-time (6 graduate credit hours) who have not borrowed the maximum annual loan amount.

Amount: Maximum annual loan is \$10,000. Interest varies, maximum rate of 8.25%, and accrues while student is enrolled.

Application/deadline: Same as subsidized loan.

Notification: Same as subsidized loan.

Federal Perkins Loan

Eligibility: Available to students enrolled at least half-time (6 graduate credit hours) who demonstrate financial need.

Amount: Maximum Federal Perkins Loan for 1997-98 at BGSU was \$1,500; current interest rate is 5%.

Application/deadline: Submit the FAFSA to determine eligibility as soon as possible after January 1 for the following fall and spring semesters.

Notification: Student Financial Aid notifies student via a *Notice Of Financial Aid Eligibility* (award letter). Student must sign a promissory note before funds are disbursed.

Short-term Loans

Short-term assistance is available to graduate students for payment of nonresident, instructional, and general fees, and for emergency personal expenses. Loans must be repaid within 45 days or by the end of the term, whichever comes first. Loans for instructional and general fees are available from the Office of the Bursar. A personal payment of one-third of the balance of fees is required. Short-term loans for personal expenses are available through the SFA Office; appointments are recommended. Students applying for short-term loans must be in good standing and have a verifiable source of repayment.

For more information about financial aid and on-campus employment, contact the Student Financial Aid Office, 231 Administration Building, (419) 372-2651, or Student Employment, 315A Student Services Building, (419) 372-2865.

Basic Fees and Charges

All fees and charges are **subject to change without advanced notice by the Board of Trustees**. Such changes take precedence over the printed fees.

Instructional and General Fees

Graduate students pay an instructional fee and a general fee. The instructional fee for Ohio residents registering for 11-18 semester hours is \$2,948 per semester. Ohio residents registering for less than 11 semes-

ter hours pay the instructional fee at the rate of \$273 per credit hour. Students registering for more than 18 semester hours pay an excess credit fee of \$50 per credit hour.

A student who is classified as a nonresident of Ohio is assessed a nonresident fee in addition to the instructional fee and general fees. The nonresident fee for students registering for 11-18 semester hours is \$2,949 per semester. Nonresident students

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registered for less than 11 semester hours pay a nonresident fee at the rate of \$281 per credit hour. Nonresident students registering for more than 18 semester hours pay an excess credit fee of \$50 per credit hour.

The general fee for graduate students who register for 11-18 semester hours is \$427 per semester. Students who register for fewer than 11 semester hours pay a general fee of \$43 per credit hour. The general fee finances the many student services and activities on campus, and a portion is used for capital improvements.

If a student's registration is cancelled prior to the first day of classes after prepayment of fees, a full refund is made.

Other Fees And Charges

Summer Term Fees

Ohio residents enrolled for 11-18 semester hours during the summer pay an instructional fee of \$2,948 and a general fee of \$257. Residents enrolled in fewer than ten semester hours during the summer pay \$299 per hour. Students who are not Ohio residents pay a nonresident fee in addition to the instructional and general fees. The nonresident fee is \$2,949 per semester for an enrollment of 11-18 semester hours or \$580 per hour for an enrollment of less than 11 hours.

Mandatory Fees

* A nonrefundable one-time *application fee* of \$30 is charged to all students seeking admission to a degree program in the Graduate College.

* A nonrefundable one-time *admission fee* of \$15 is charged and payable at the time of initial registration for degree seeking students.

* A *registration fee* of \$8 is assessed to all students each semester.

Other Possible Charges

* A *late payment fee* is charged for paying fees after the last day designated for this purpose at the opening of a semester (including summer). The fee is \$5 for each late day including Saturdays and Sundays to a maximum of \$25.

* An *excess credit fee* of \$50 is charged for each hour of enrollment in excess of 18 hours.

* A \$25 *returned check service charge* is assessed, in addition to the bank charge, for each check returned by the bank as uncollectible.

* An *automobile registration fee* of \$40 is required of each student when registering

an automobile with the Parking Services Office. Each automobile on campus must be registered and its decal displayed in accordance with instructions.

* A *credit-by-examination charge* of \$50 is made for each special examination taken for credit.

Students who feel qualified to receive credit by examination may submit a formal petition to the Graduate College setting forth evidence of previous study and/or specific experience which they believe should permit them to take such an examination. Students who successfully pass an examination for credit receive a grade of S. Students who fail an examination for credit have a notation to that effect entered in the appropriate place on the record. A maximum of six hours of graduate credit may be taken by examination. Only students who have been admitted to a degree program may earn credit by examination.

* A *course revalidation charge* of \$25 is made for each course revalidation. Courses older than seven years (at the master's level) and ten years (at the doctoral level) may not be revalidated.

Revalidation forms are available in the Graduate College office. Only courses taken on this campus in which the grades of A, B, S, or P were earned may be revalidated.

* An *applied music fee* of \$45 per semester hour or \$90 for 2 or more hours is charged for one-half hour of individual instruction per week. 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.

* There is a *surcharge* for students enrolled in the Executive MOD program and Executive MBA program due to the external nature of the programs.

* A *master's thesis binding and micro-filing charge* of \$20 must be paid by each student before the unbound thesis is deposited in the Office of the Graduate College. The copy is bound and deposited in the Jerome Library, as is the microfilmed copy.

* A *dissertation binding and abstract publication charge* of \$75 must be paid by each candidate for the degrees of Doctor of Philosophy and Doctor of Education prior to depositing the copy of the dissertation with the Graduate College. This charge covers the cost of publishing the dissertation by University Microfilms International of Ann Arbor, Michigan, and the cost of binding the dissertation and microfilming it for Jerome Library.

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* Students enrolled for eight or more semester hours are required to have *health insurance*. Students who do not indicate in writing that they already have health insurance must enroll in a student health insurance plan made available by the University. For 2000-01, this health insurance plan cost \$558 for the academic year.

Delinquent Accounts

Students experiencing financial difficulties should contact the Office of the Bursar promptly to arrange for the payment of their outstanding balance to avoid the following collection actions.

When University charges (room, meals, fees, and others) are not paid on a timely

basis, the Office of the Bursar will seek to collect the past due monies. As part of this process, service charges will be assessed. It is possible that a student's grades and/or transcript and other services may be withheld and room, meals, and/or registration may be cancelled. If satisfactory arrangements cannot be made to clear an outstanding account, as a last resort, the account will be referred to a third party for collection and the delinquency reported to the credit bureau. When extra costs (collection, attorney, litigation) are experienced, these costs will be added to the unpaid balance and will become the responsibility of the person/party owing the unpaid balance.

Payment of Fees

Fees are payable at the Bursar's Office between 8 a.m. and 5 p.m. Monday through Friday.

For a student desiring to utilize a credit card, MasterCard, Discover, and Visa are honored by the University. The 24-hour telephone number for credit card payments is (419) 372-0111; fax (419) 372-7665.

All payments or payment arrangements must be made prior to the first official day of classes.

A student's financial account must be paid in full, including fees and current charges, before a registration request will be honored for any term or session. Students should note that payments are applied chronologically to University debts. Therefore, if traffic or library fines, bookstore charges, or other fees have been put on a student's account before the general fee was

assessed, they will be paid off first, and the general fee will still be outstanding.

Exemptions

Graduate assistants receive a fee scholarship covering the instructional fee (\$2,948 per semester), the nonresident fee (\$2,949 per semester), the general fee (\$427 per semester), and the automobile registration fee (\$40 per year) for the period stated in the contract.

Graduate assistants in the College of Musical Arts are also entitled to a credit for applied music fees during the academic year (does not include the summer term).

The Graduate College makes arrangements with the Office of the Bursar to credit appropriate fees for students under contract.

Refund of Fees

In the case of a voluntary withdrawal of a student from the University during any semester, fees—except for the application fee, registration fee, and matriculation fee—are refunded on the following basis for fall or spring semester:

Prior to the start of class	100%
During 1st calendar week of semester	
begins	90%
During 2nd calendar week of classes	80%
During 3rd calendar week of classes	60%
During 4th calendar week of classes	40%
After 4th calendar week of classes	0%

** Please note that the University caps registration costs for any registration schedule within the range of 11-18 hours. Any registration falling within the 11-18 range is

assessed at the same capped rate (based on registration) and NO refund of fees would be made to an account for a drop, if that account remains within this range of hours.

A student withdrawn 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 semester 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 agreement. 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. The

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refund schedule for the dropped course is based on a class-by-class reduction schedule accounting to the schedule listed above. Any refund is subject to the percentage refund schedule.

A student who stops attending classes and does not complete a formal withdrawal notice is not entitled to any refund.

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. Refunds normally take a minimum of four weeks to be processed.

Credit card payments will be credited back to the appropriate credit card.

Summer Term

Summer school fees for students enrolled for the entire summer term are refunded according to the schedule above. However, in the case of withdrawal for a student enrolled only in one summer 6-week

session, fees are refunded by the following schedule:

<i>Withdrawal from Six-week Session</i>	<i>Refund</i>
Prior to 1st day of session	100%
During 1st or 2nd day of session	90%
During 3rd-5th day of session	80%
During 6th-10th day of session	60%
After 10th day of session	0%

<i>Withdrawal from Summer Workshop</i>	<i>Refund</i>
Prior to 1st day of workshop	100%
End of 1st day of workshop	90%
After first day of workshop	0%

The dropping of a scheduled workshop after the mid-point will be recorded as WP or WF on a student's record unless a written request for a non-record entry is obtained from the sponsoring college.

Graduate students should send a self-addressed 9" x 12" manila envelope with \$2 postage on it to the Off-Campus Student Housing (OCSH) office at 425 Student Services Building for information about renting apartments or houses in the area. OCSH keeps up-to-date prices and listings of available houses, apartments, rooms in homes, and subleases. They also operate a roommate locator service to help students find compatible roommates, and can provide

move-in inventory forms and information on public utilities.

Students should arrange their own housing before starting classes. The University does not own or operate any apartment or family-type housing, nor does it maintain any residence hall solely for graduate students. OCSH sponsors an annual Housing Fair where students meet landlords and other community agencies.

Housing

Students are responsible for indicating proper residency at the time of application. Since the residence must be declared at registration, this determination is not retroactive. If students have any questions regarding residency status, they should immediately bring the case to the attention of the Office of Registration and Records, 110 Administration.

Students who register improperly with respect to legal residence under the rules indicated 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 registration in the University nullified.

The University reserves the right to make a final decision in any case of disputed residence of a student as a condition of the student's admission. In determining the student's proper residence, University officials utilize the following regulations as established by the Ohio Board of Regents.

Nonresident/ Resident Regulations

Ohio Student Residency Qualifications

The following standards are used in determining residency surcharge purposes:

A. *Intent and authority*

1. It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied

here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.

2. This rule is adopted pursuant to Chapter 119. of the Revised Code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code.

B. *Definitions*

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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/herself to be or allowed himself/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 institute or college, general and technical college, medical college, or private medical or dental college which receives a direct subsidy from the state of Ohio.

4. A "domicile" as used in this rule is a person's permanent place of abode; there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one domicile may be maintained at a given time.

5. An individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

C. Residency for subsidy and tuition surcharge purposes

The following persons shall be classified as residents of the state of Ohio for these surcharge purposes:

1. A dependent student, 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. A person who has been a resident of Ohio for the purpose of this rule for at least 12 consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has 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. A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates.

Documentation of full-time employment and domicile shall include both of the following documents:

(a) a sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent or spouse of the student

is employed full-time in Ohio.

(b) a copy of the lease under which the parent or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

D. *Additional criteria which may be considered in determining residency for the purpose may include but are not limited to the following:*

1. Criteria evidencing residency:

(a) if a person is subject to tax liability under section 5747.02 of the Revised Code;

(b) if a person qualifies to vote in Ohio;

(c) if a person is eligible to receive state welfare benefits;

(d) if a person has an Ohio driver's license and/or motor vehicle registration.

2. Criteria evidencing lack of residency:

(a) if a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);

(b) if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits.

E. *Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:*

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.

2. A person who enters and currently remains upon active duty status in the U.S. military service while a resident of Ohio for all other legal purposes and the dependents of such shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

3. A person on active duty status in the U.S. military service who is stationed and resides in Ohio and the dependents of such shall be considered residents of Ohio for these purposes.

4. A person who is transferred by an employer beyond the territorial limits of the 50 states of the U.S. and the District of Columbia while a resident of Ohio for all other legal purposes and the dependents of such shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile and as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.

5. A person who has been employed as a migrant worker in the state of Ohio and the dependents of shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the

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three years preceding the proposed enrollment.

F. Procedures

1. A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph C.1. of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.

2. In considering residency, removal of the student or 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 C.1. or C.2. of this rule.

3. For students who qualify for residency status under paragraph C.3. of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than 12 months after accepting employment and establishing domicile in Ohio.

4. Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency, must apply to the institution he/she attends for reclassification as a resident of

Ohio for these purposes if such person in fact wants to be reclassified as a resident. 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 documentation regarding the sources of a student's actual financial support.

5. 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.

6. Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

Academic Regulations

Academic Honesty

Academic honesty is the central value of an academic community. It is expected that graduate students will neither engage in nor facilitate cheating (using or attempting to use unauthorized materials, information, or study aids), fabrication (falsification or invention of any information or citation), or plagiarism (representing the words or ideas of others as one's own) in their academic work. The Academic Honesty Policy, which is found in the *Student Affairs Handbook*,

contains strict sanctions, including expulsion, for all forms of academic dishonesty.

Students found guilty of violating other University regulations, such as engaging in moral and ethical misconduct, or in actions that are injurious to others or threaten the orderliness and well-being of the campus, are subject to equally strict sanctions in accordance with the provisions set forth in those regulations.

Requirement Changes

In regard to their curricula and courses, students are governed by their approved Tentative Degree Program (TDP). In regard to the rules and policies, students are governed by the current catalog.

The University seeks to offer degree programs with integrity and stability. Accordingly, students may expect the programs to be implemented basically as described. However, because higher education is a dynamic enterprise, the University has the authority to make changes in policies, degree programs, requirements, course offerings, class schedules, assignment of instructors, fees, and other aspects of its educational programs at any time, sometimes without prior notice. Such alterations and changes in policy supersede specific information appearing in the *Graduate Catalog* and other official publications of the University.

General requirements in degree programs cannot be waived. In addition to the minimum requirements specified by the

Graduate Council academic departments/schools also have the authority to prescribe their own degree requirements and policies. Students already studying in graduate degree programs may be required to comply with alterations in the curriculum when major revisions occur. Prospective students should consult with the departmental graduate coordinator concerning the degree program of interest, current offerings, and precise requirements. Ignorance of degree requirements and regulations is not a justification for an exemption or waiver. It is the responsibility of graduate students to familiarize themselves with the rules and regulations of their academic department as well as the policies presented in the *Graduate Catalog* and *Student Affairs Handbook* and to maintain familiarity with such policies throughout their graduate studies at Bowling Green State University. Only students who satisfactorily complete all the requirements in a program will be recommended for the appropriate graduate degree.

Course Work

Courses for Graduate Credit

All courses numbered 500 through 700 carry graduate credit. As a matter of policy, no courses numbered lower than 500 carry graduate credit. Courses not approved for graduate credit cannot be taken and then added to a student's degree program for graduate credit. A graduate student who is enrolled in a graduate class open to undergraduates (400/500 courses) is required to do additional work of an individual nature to earn graduate credit for the course. The instructor is responsible for designating the type and amount of such work, but the graduate student must take the initiative in arranging for it within the first week of the term.

Graduate Courses for Undergraduates

Under certain circumstances, it is permissible for undergraduate students to register for graduate course work prior to having received the baccalaureate degree. An undergraduate student who wishes to take graduate courses for graduate credit must apply to the Graduate College for admission as an advanced undergraduate. This type of registration is extended only to currently matriculated students of the University who have completed 90 semester hours of undergraduate work with at least a 3.0 grade point average. The student must have the instructor's and the graduate coordinator's permission.

The classification of advanced under-

Academic Regulations

graduate is not equivalent to admission to any particular graduate degree program. Courses taken for graduate credit by an undergraduate student cannot be used to satisfy a requirement for the undergraduate degree. The student who is approved for the classification of advanced undergraduate may not register for more than six semester hours of graduate course work in any one semester. An advanced undergraduate is eligible for a maximum of nine semester hours of graduate course work during his or

her tenure at the University.

If an undergraduate student wants to take a graduate course for undergraduate credit as part of the baccalaureate program, the student must petition the dean designate of the Graduate College. The graduate course may be used as an elective only. It cannot be used as a substitute for any undergraduate course to satisfy a specific course requirement or a subject area distribution requirement of the undergraduate degree program.

Unit of Credit

The unit of credit is the semester hour, which is ordinarily earned by one hour of recitation or lecture a week per semester.

Depending upon the amount of outside preparation required, two or three hours of laboratory work carry the same credit as one hour of recitation or lecture.

Grading Policies

Grading System

The following system of marks is used in reporting and recording a graduate student's proficiency in courses:

A excellent	4.0 points
B acceptable	3.0 points
C below standard	2.0 points
D failure	1.0 points
F failure	0.0 points
WF withdraw failing	0.0 points

A course taken for graduate credit in which the grade of D or F is received may not be used to meet degree requirements or to meet the minimum credit hour requirements for a graduate degree. Some academic departments prohibit the use of courses with C grades for degree requirements; students should consult the student handbook in their program area.

Some courses are graded on an S/U (satisfactory/unsatisfactory) basis and are so indicated in the individual course descriptions. A grade of S is equivalent to a letter grade of B or higher. If a graduate course has been approved for S/U grading, a graduate student is not eligible to receive a letter grade in that course.

Grades for courses numbered 699 and

799 are reported as IP (in progress) until the completed thesis or dissertation is approved when the final grade of S (satisfactory) is substituted.

Grading Options

Graduate Courses

Students and instructors do not have an option concerning the grading system for a graduate course. Each graduate course is approved for either letter or S/U grading. Unlike undergraduate grading, it is the University's decision, not the student's option, which determines the grading system to be used in graduate-level courses.

Undergraduate Courses

Graduate students who take undergraduate courses are graded according to the undergraduate grading system. Such students receive a letter grade unless they register to be graded on an S/U basis. Regardless of the grading option, undergraduate courses taken by graduate students are not calculated in the graduate GPA.

An INC (incomplete) is given only when, for some approved reason, a student fails to take the final examination or to fulfill a definite requirement in a course. IPs (in progress) are given for thesis (699) and dissertation (799) research.

An INC can be removed and a grade substituted if the student completes course requirements to the satisfaction of the

instructor prior to the deadline established by the Graduate College. The deadlines for removal of incomplete grades for the respective academic semesters are:

Fall Semester	June 1
Spring Semester	September 1
Summer Semester	January 1

Once the deadline has passed, the instructor has the option of assigning a

Incomplete Grades

Academic Regulations

grade based upon the work completed by the deadline or leaving the grade as a permanent incomplete on the record.

The graduate dean designate has the authority to extend the deadline for an incomplete when there are serious, documentable reasons. The student must petition the graduate dean designate for such consideration prior to the expiration of the deadline. The instructor's support is required for approval of the request.

Once the deadline has expired for removal of an incomplete, the only way a

student can redeem a course with an INC is to take the course again. The course is entered twice on the transcript; the original course remains on the transcript as an INC grade. Reregistration involves the payment of appropriate fees.

Although faculty members do not routinely assign incompletes in their courses, it is a prerogative of the instructor of a course to authorize an incomplete for a student. Students are graded on what they achieve in the regular time period of a course.

Grade Appeals

The procedure for grade appeals at the graduate level involves following a sequence of consultations. An appeal may be settled during an early stage, but the complete process includes five steps:

- (1) Student meets with course instructor;
 - (2) Student meets with departmental faculty member who serves as grade appeal agent (see University Charter B-II. G.9);
 - (3) Student meets with the departmental chair or program director;
 - (4) Graduate College grade appeal committee reviews the student's grade appeal;
 - (5) Graduate dean designate reviews the due process procedures.
- All levels of the appeal process are

advisory to the instructor. Only the course instructor can change a student's grade.

It is the student's responsibility to follow the steps in the procedure according to the sequence outlined above. Grade and absence grievances may not be appealed beyond the Graduate College level.

Deadlines

The grade appeals procedure must be initiated by the end of the fifth week of the spring semester for grades received during fall semester, and by the end of the fifth week of fall semester for grades received during the spring or summer semester. All actions for grade changes must be completed during the semester in which the grade is appealed.

Standards of Work

In order to remain in good standing and to graduate, a student must make satisfactory progress toward a degree. Academic good standing is defined as: (1) the maintenance of a 3.0 grade point average at the master's and specialist's levels and a 3.2 at the doctoral level; (2) the accumulation of not more than two incomplete grades on record at any one time in other than approved research project hours (i.e., 699 and 799); (3) the completion of departmental requirements other than course work, such as comprehensive examinations, thesis research, or foreign language requirement, by established deadlines; and (4) the absence of any suspensions, probations, or other disciplinary sanctions for violations of the *Student Affairs Handbook*. Satisfactory academic progress in a program also involves maintaining the standards of aca-

demical and professional integrity expected in a particular discipline or program; failure to maintain these standards may result in the academic dismissal.

A course taken for graduate credit in which a D was received may not be used to meet degree requirements nor to meet the minimum credit hour requirements for a graduate degree; however, the hours and grade are used to compute the cumulative grade point average. If a graduate student repeats a course, each grade received is counted in computing the cumulative grade point average. To compute GPA, the total number of points (on the 4.0 scale) are divided by the total number of hours undertaken for graduate credit, excluding courses in which the marks INC, IP, S, U, or W/P are recorded.

Academic Regulations

It is possible for a student to lose funding at the end of a term and be placed on probation (without funding) for the subsequent term.

Graduate students are required to demonstrate “satisfactory progress toward the degree” in order to maintain a teaching or research assistantship. Failure to make “satisfactory progress toward the degree” normally results in probation and can lead to dismissal. Satisfactory progress means that master’s students must maintain an overall average of 3.0 and doctoral students must maintain a 3.2 grade average.

The Graduate College monitors all graduate student files at the end of each term once grade reports have been issued. A list of students whose grades fall under 3.0 (for master’s students) or 3.2 (for doctoral students) is sent on to the degree program for review.

The following should be considered in cases of unsatisfactory progress. The accumulation of two or more Cs, a D, or an F should cause the student and the graduate coordinator serious concern. These grades are clear warnings to the student in question that he or she is not making acceptable progress toward the degree. Students should be notified in person about their lack of satisfactory progress and the graduate coordinator or other members of the graduate faculty should articulate clearly what the student must do to be successful.

If the Graduate College determines that

a student is not in good standing at the end of a term, the following should occur. The degree program graduate committee should review the student’s records and make one of the following recommendations: (a) grant a probationary period in which to remedy deficiencies, along with providing the student clear direction on what the student must do; or (b) dismiss the student. The graduate committee should convey its decision to the Graduate College.

The dean designate, acting on behalf of the Graduate College, will approve or not approve the recommendation of the degree program. Students who are placed on or continued on probation will be notified in writing by the Graduate College. Students are rarely dismissed after only one semester of low grades unless they were conditionally admitted. However, students should not normally remain on probation for more than two semesters unless they are very close to a 3.0 or 3.2 and can demonstrate the ability to earn A’s. If it is determined that a student already on probation is not likely to earn A’s, dismissal should be considered in a timely fashion, rather than allowing the student to languish. Final approval of dismissal rests with the graduate dean designate. If the decision is made to dismiss the student from his or her program of study, the Graduate College will notify the student and a letter will be sent to the Registrar indicating that the student’s name should be removed from the appropriate computer files.

Academic Dismissal

Students may request an approved leave of absence from the University by sending a letter to the Graduate College. A leave of absence must be for a designated period of time. Typically, a leave is for six to 12 months. If a student is on an approved leave

of absence, the time of the leave does not count against the six- or eight-year time limit for degree completion. Students may not take a leave of absence for the purpose of taking undergraduate courses.

Leave of Absence

Students who have been fully admitted into graduate degree programs at the University may petition for transfer of credit from another accredited graduate school once they have satisfactorily completed eight hours of graduate work in University degree programs. The petition takes the form of inclusion in the tentative degree program. An official transcript must be received by the Graduate College before credit can be approved for transfer. Credit may be transferred only for courses in which the student received the grades of A or B. Credit for an S grade may be transferred only if the grade is

regarded by the grading school as B or better.

Transfer of credit is not appropriate for graduate non-degree students; by definition, they have no graduate degree program toward which credit is to be transferred. The transfer of credit for any graduate student for purposes of consolidating transcripts is not allowed. If a graduate non-degree student later becomes admitted to a graduate degree program, transfer of credit can be requested in consultation with the graduate coordinator of the program. Conditionally admitted students must achieve regular

Transfer of Credit

Academic Regulations

status before petitioning for transfer of credit. Final approval for transferred credit is granted only by the graduate dean designate.

The time limits for completion of a master's degree and a specialist degree (six years) and for a doctoral degree (eight years) apply also to transferred credit. That is, all credits within a master's and specialist program must fall within the six-year period dating from the end of the earliest course used to fulfill degree requirements on the Tentative Degree Program; similarly, all credits within a Ph.D. program must fall within the eight-year period.

Once the request for transfer of credit has been approved by the academic program and the Graduate College, and official transcripts are received, the credit hours—not grades—for the courses are transferred into the student's degree program. Because the grades are not officially recognized, they cannot be counted into a student's cumulative grade point average.

Courses equivalent to those at the University cannot be transferred for credit and also taken for credit here (course

duplication is not allowed). Only graduate-level courses qualify for transfer to graduate degree programs.

The maximum number of transferable hours in a master's degree program varies according to the degree program. University policy specifies that a student must complete 24 semester credit hours of a master's program in residence at the University, so about six or eight hours may be transferable, depending on the program. In a specialist degree program a maximum of 20 credit hours are transferable. In doctoral programs transfer credit is limited to a maximum of one-third of the total number of credit hours beyond the bachelor's degree required for the doctoral degree and approved by the graduate dean designate; the transferable Ph.D. maximum is usually about 30 hours. The transferable credit limits for the specialist and doctoral degrees refer to the number of postbaccalaureate credits that are required for the degrees; in other words, the master's degree credits must be included in these transferred credits.

Equal Access to Programs

While the University provides equal educational and employment opportunity, any student with a physical disability that requires special individual services or equipment, will be responsible for the expenses. This policy includes the expense of providing personal tutors, personal

attendants, medical technicians, and other services. The University will assist such students in communicating with proper community or government agencies to secure any available financial assistance to meet their needs.

Graduate College Calendar

Individual programs may establish earlier deadlines or guidelines for associated activities (e.g., signing up for comprehensive exams, submitting preliminary drafts of theses and dissertations, final examinations,

etc.). The appropriate program handbook, or graduate coordinator, should be consulted. Students are reminded that it takes time to read theses, dissertations, and examinations with the rigor and care they deserve.

Academic Regulations

Admission of Ph.D. candidacy (approval of dissertation topic)	6 months before commencement
Approval of thesis topic	Last week of classes of previous term
Graduation application (commencement booklet deadline)	4 weeks after first day of classes
Application for M.Ed. (non-thesis) comprehensive exam	(established by College of EDHD)
Deposit of results of final examination for the doctoral degree	Monday of the 6th week before commencement
Deposit of approved, error-free copy of master's thesis and doctoral dissertation	Monday of the 4th week before commencement
Comprehensive exam for (non-thesis) master's degree (except M.Ed.*)	2 weeks before commencement

* M.Ed. Comprehensive exam deadlines are established by the College of Education and Human Development.

Degree Programs

Advising System

Careful planning of a degree program is important for all graduate students, and especially vital for those who spread graduate work over more than one year. For this reason, incoming graduate students need to know their responsibilities as well as those of the program and the Graduate College.

Student Responsibilities

Each student is responsible for meeting the specific degree requirements outlined in this catalog and the deadlines published under "Academic Regulations," also in this catalog.

Graduate Advisor

Students are assigned a personal graduate advisor (also called a major professor). This advisor and the graduate student work together in the active pursuit of knowledge and research. There is an in-depth relationship on academic matters. The graduate student receives guidance from this advisor as well as from the examining and thesis or dissertation committee when appropriate.

Graduate Coordinator

In addition, each program has a graduate coordinator whose duties include informing graduate students about the policies, practices, and deadlines of the Graduate College. This person is responsible for monitoring the academic progress of each student throughout his or her degree program. The graduate coordinator also provides various kinds of written certification of a student's degree progress which are subsequently posted in the official records of the Graduate College and Office of Registration and Records. Specific requirements about the various steps in matriculation toward the degree are available from the program's graduate coordinator and the Graduate College.

Graduate College

The Graduate College serves primarily as a monitor of the student's progress toward a degree and is the coordinator of activities that are beyond the scope of the program.

Tentative Degree Program (TDP)

The Tentative Degree Program (TDP) is a listing of courses a student plans to take to meet the requirements for his or her graduate degree program. The TDP serves two main purposes. First, by defining the student's course of study it gives focus and direction to his or her individualized graduate degree program. Second, it constitutes an agreement that successful completion of the proposed course of study, and the general degree requirements set down in the *Graduate Catalog*, will result in the awarding of the degree. The Graduate College checks the student's records against the TDP to verify eligibility for graduation.

The TDP is to be submitted to the Graduate College during the semester in which the student enrolls for the 15th hour of credit toward his or her degree program. It is the responsibility of the student to make an appointment with his or her

graduate advisor or with the departmental graduate coordinator, whichever is appropriate, in order to complete the TDP form. The student's advisor and the graduate coordinator must approve the TDP before it is submitted to the Graduate College.

Courses approved on this form serve as a guide but may be altered upon approval of the graduate coordinator and graduate dean designate. However, degree requirements may not be modified or set aside without the approval of the dean designate or the Graduate Council. The TDP should show work that may be required by the department to make up any deficiencies; this includes students who are required to take ENG 500 (although ENG 500 hours do not count toward graduation).

All TDPs must be submitted to the Graduate College for approval.

Student Research Projects

Thesis and dissertation research projects involving laboratory animals must be reviewed by the Animal Care and Use Committee prior to the initiation of the study. Student research projects that involve collecting information from or about living persons must be reviewed by the

Human Subjects Review Board. For projects involving collection of any kind of information from or about people by survey, interview, testing, observation, examination, specimen collection, or review of records, graduate students should consult WITH A MEMBER of the Human Subjects Review

Degree Programs

Board. This consultation should take place during the design stage of the research project. The identity of a department's representative may be obtained from the departmental graduate coordinator or by calling the Graduate College.

Graduate students collecting data or carrying on correspondence in connection with a thesis or dissertation may not use the name of the University without special written permission of the dean designate of

the Graduate College. Any questionnaires or other materials distributed outside the University must receive the prior approval of the instructor or advisor in charge of the study before a student seeks approval by the dean designate.

Additional information concerning the policies applicable to student research projects can be obtained from the Office of Sponsored Programs and Research.

Achieving professional certification, such as in education and clinical areas, is commonly a course of study separate from the completion of a graduate degree. Students who earn a graduate degree may not in fact be certified to teach or practice in a given area. Consequently, it is the student's responsibility to consult with the certifying agency and the appropriate program direc-

tor on campus concerning requirements for a particular certificate, including course requirements, teaching, or administrative experience, and successful completion of the state-prescribed examination. The Graduate College bears no responsibility for an individual's completion of teaching certification.

Teaching Certification

The total number of graduate credit hours earned in conferences, institutes, lecture series, workshops, and other nontraditional modes that may be counted toward a graduate degree at the University shall not

exceed nine credit hours. This credit-hour limitation is designed to provide an appropriate balance among the various types of learning experiences within a student's graduate degree program.

Workshops and Nontraditional Courses

Transcript designations for specializations can be made on a graduate student's record only when the specialization has been

formally approved by the Graduate Council and specifically identified on the Tentative Degree Program form.

Transcript Notations

To become a candidate for a graduate degree—master's, specialist, or doctoral—the student must file an application for graduation. The graduation application should be

filed by the following dates:
Fall Semester September 18
Spring Semester January 26
Summer Semester June 5

Application for Graduation

In addition to graduate degrees, Bowling Green State University offers graduate certificates.

Students may enroll in only a certification program, or may complete a certificate in conjunction with a graduate degree at BGSU.

Ethnic Studies

The graduate certificate in Ethnic Studies is offered within an interdisciplinary/multidisciplinary framework. The curriculum contributes to societal needs as it addresses issues of racial and ethnic diversity in the workplace, community, nation, and world during a period of profound demographic change. It is designed to

provide professional study in an area of increasing importance to practitioners in social, health, and immigration service agencies; law; and K-12 and community college education, among other occupations. The certificate also offers a graduate credential to students pursuing advanced degrees and seeking to broaden their teaching and research competencies in order to enhance their career options and employment prospects.

Gerontology

The 15-semester hour graduate certificate in Gerontology was designed by the College of Health and Human Services to prepare students to help promote successful

Graduate Certificates

Degree Programs

aging among the elderly. Adopting a multidisciplinary approach, the certificate curriculum acknowledges the role of biological, psychological, and social influences on older adults' well-being. The certificate program is appropriate for professionals who occupy positions in agencies and institutions that directly administer and deliver services to the elderly, but who have not received recent formal training in gerontology; for students pursuing academic and/or research careers that focus on the elderly; and for students who anticipate their chosen profession (e.g., business, health care) will bring them into contact with older adults. Regardless of a student's career goals, the Certificate Program provides knowledge of gerontology that is applicable to all business, professional, and personal situations involving older adults.

Women's Studies

The graduate certificate in Women's Studies brings together scholars and graduate students across the University actively engaged in interdisciplinary feminist scholarship. This graduate certificate is an official acknowledgement of training and expertise in the field of women's and gender

studies. The certificate program provides students with knowledge of a unified approach to the study of fundamental issues in sex and gender studies. Students examine how sex and gender have been reflected in culture across time; how they shape institutions as well as personal experience; how they interact with issues such as race, ethnicity, and socioeconomic class; and how new ways of thinking about gender challenge the processes by which knowledge about human beings and our behavior is acquired, interpreted, and transmitted.

The graduate certificate is intended to supplement professional training, whatever it may be. As a stand-alone credential, the certificate is designed for individuals working in fields related to women's health care and well being, as well as professionals in positions of advocacy for women, elementary, high school, and community college teachers, and returning, nontraditional students.

The certificate acknowledges formal training and expertise in issues of cultural diversity, gender equity, feminist theory, feminist methodology, and the infusion of gender into all psychological, social, and mediated relationship.

General Requirements for Master's Degree

Types of Programs

The specific descriptions of the respective master's degrees are given under the subheadings of Master of Accountancy, Master of Arts, Master of Arts in Teaching, Master of Business Administration, Master of Education, Master of Family and Consumer Sciences, Master of Fine Arts, Master of Industrial Technology, Master of Music, Master of Organization Development, Master of Public Administration, Master of Rehabilitation Counseling, and Master of Science. Degree requirements are outlined under the degree headings listed above and in the

program descriptions in the "Graduate Programs and Courses" section of this catalog.

In several of the programs, students may pursue the degree under either a thesis option (Plan I) or comprehensive examination option (Plan II). Students present their intention to pursue either a Plan I or a Plan II master's degree program at the time of submission of the Tentative Degree Program form to the Graduate College. All master's degree programs have a culminating option (e.g., thesis, project, or comprehensive examination).

Credit Hours

All master's degree programs of the University require at least 30 semester hours of graduate course work. Specific credit hour requirements are listed under the degree and program descriptions.

Students must be enrolled for at least one hour of credit in the semester in which they graduate.

Level of Work

At least 18 hours of credit in the student's master's degree program must be

on the 600-level or higher. Many 500-level courses are cross-listed with 400-level undergraduate courses. A graduate student must register for the 500-level section of the course.

Residence Requirements

A minimum of 24 hours toward the master's degree must be earned at Bowling Green State University. Credits earned at the Firelands extension branch may apply toward the requirements for the master's degree only when the extension course is

Degree Programs

specifically given for graduate credit. Transfer credit must be in addition to the minimum of 24 hours earned in residence.

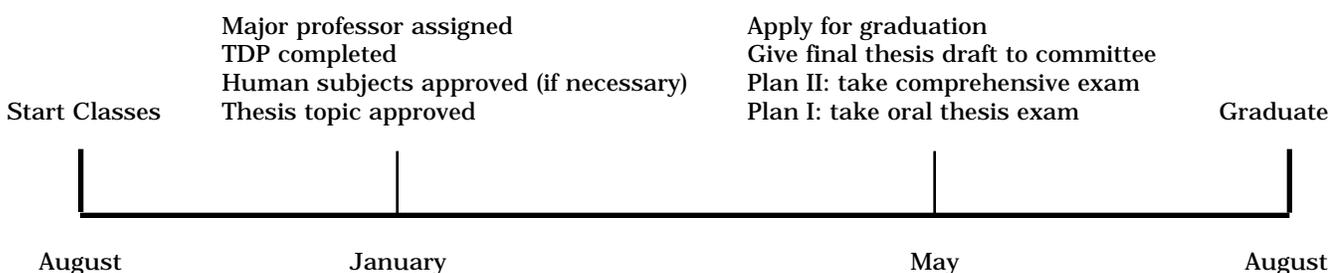
Unless a degree program has been specifically approved by the Ohio Board of Regents as an off-campus graduate degree program, the individual student must complete at least 51 percent of graduate course work on the main campus of the University, as distinguished from the Firelands branch campus or another off-

campus extension center.

Time Limits for Degree and Revalidation

Candidates must complete all requirements for a master's degree within six years from the end of the earliest course used to fulfill degree requirements on the Tentative Degree Program. Course credits older than six years will not apply unless submitted for revalidation. Courses older than seven years may not be revalidated.

Suggested Timeline for One-year Master's Students



The steps involved in completing a thesis generally include: proposal submission; proposal approval; research and analysis of findings; preliminary draft submission to committee; changes, additions, and corrections; final draft submission and committee approval; final examination or thesis defense; and submission of original, error-free copy to the Graduate College.

Thesis Committee

Each student is responsible for forming a thesis committee at the same time approval of the thesis topic is requested. The committee is composed of the thesis advisor (also called the major professor) and a minimum of one other member from the graduate faculty of the student's program. A faculty member cannot be required to be on a thesis committee. Not all professors are members of the graduate faculty; students should consult their graduate coordinator to determine who is eligible to be on or chair a committee. Any changes in committee membership must be approved by the graduate coordinator and filed with the Graduate College.

Approval of Thesis Topic

A thesis is required under Plan I for the degrees of Master of Family and Consumer

Sciences, Master of Arts, Master of Education, Master of Fine Arts, Master of Industrial Technology, Master of Public Administration, and Master of Science. A thesis may be required for the degree of Master of Music, depending on the field.

The thesis topic should arise out of the student's personal exploration in the field of study. The formal petition for approval of the thesis topic must clearly set forth the problem, the intended organization, and the methods of development of the thesis. After approval by the student's committee and graduate coordinator, the thesis topic must be filed with the student's department and the petition of topic approval submitted to the Graduate College. A student must have a minimum grade point average of 3.0 in all graduate work at the time of application for thesis topic approval. For more details, the *Thesis and Dissertation Handbook* is available in the Graduate College office and on the web.

Depending upon the field and the type of degree sought, the thesis may represent a specifically limited piece of research, the solving of a complex problem of design, a critical understanding of a sector of knowledge of considerable dimensions, or a thorough critical analysis or completed creative production of a substantial piece of literature or art.

Plan I: Master's Thesis

Degree Programs

Thesis Drafts and Abstract

A preliminary draft of the completed thesis (defined as a manuscript that answers the stated problem) should be submitted to the thesis committee by the time a student files the application for the degree.

The final draft of the thesis (defined as the thesis manuscript with content embodying all corrections requested by the committee) should be submitted to the thesis committee sufficiently prior to the date set for the final examination to allow for a rigorous and careful reading of the manuscript by the committee. The graduate coordinator and departmental handbook should be consulted for this deadline. The committee's approval of the thesis and the abstract are certified by the Graduate College at the time of the final examination.

The original, error-free copy of the approved thesis must be filed in the Graduate College office not later than four weeks prior to the commencement at which the degree will be conferred. Students failing to meet this deadline will not be eligible for graduation that semester. The manuscript must conform with specifications in the *Thesis and Dissertation Handbook*. The thesis is then microfilmed, bound, and placed in Jerome Library. A \$20 charge covers the microfilming and binding.

Final Examination

A candidate for a thesis degree has a final written and/or oral examination conducted by the committee not less than four weeks prior to commencement. This examination does not in any way release the student from the regular examinations in

courses for which the student has registered.

Minimum/Continuous Registration

A Plan I master's degree student must register for a minimum of three credits of thesis research (699) as a degree requirement. A maximum of six hours of thesis research may be credited toward a master's degree, but a student is expected to register for as many additional hours as are necessary to complete the work. The minimum continuous registration for a thesis student is one hour of 699 per semester. When it is determined that a student does not have sufficient thesis hours, the Graduate College, in conjunction with the student's academic department, will process a registration for the student for deficient hours. The student will be billed by the bursar for all fees related to the registration (i.e., instructional, nonresident fee, general fee, registration, and late fee as appropriate).

Students should begin registering for thesis research (699) at the time when they begin planning their thesis project. Students who register for thesis research are required to maintain continuous registration in thesis research from one semester to another, excluding summer term, regardless of whether they are in residence at the University until the research is completed and the thesis is accepted by the Graduate College. Graduate College policy requires that all graduate students be registered for a minimum of one semester hour during the term in which they graduate (fall, spring, or summer).

Plan II: Non-thesis Option

Plan II master's students are often required to take more courses than Plan I students. In many departments and programs, students must take and pass a comprehensive examination or satisfactorily complete a project not later than two weeks before commencement. The examination usually consists of written essays and takes several hours to complete. In some departments and programs, a special project may

be required instead of a comprehensive examination.

Any student who fails the comprehensive examination may, upon recommendation of the program's graduate coordinator and approval of the dean designate of the Graduate College, be granted permission to take a second examination. Upon failing a second examination, the student is dropped from the Graduate College.

Minimum Registration

Graduate College policy requires that all graduate students be registered for at least

one semester hour during the term in which they graduate.

Degree Programs

The two plans under which one may pursue several master's degrees are designed to meet the individual needs of students who aspire to varying types of professional careers. In a sense, Plan I (thesis) and Plan II (non-thesis) represent qualitatively different educational experiences. Consequently, the academic departments and the Graduate College discourage any switching from one plan to another after the second semester of full-time graduate study. Once the comprehensive examination is attempted under Plan II, a graduate student may not switch from Plan II to Plan I. In other words, a student may not switch to a thesis program after having failed the comprehensive examination within a Plan II program.

The interdisciplinary studies degree option is a response to an increasing interest by students and faculty in an interdisciplinary approach to graduate study and scholarship. It is available to students who have been admitted to a master's degree program, but who have unique educational needs that cannot be met within a single degree program. It is limited to those areas in which sufficient faculty and adequate material resources exist to support the proposed course of study.

Any student who has been admitted to a master's degree program and who is interested in pursuing the interdisciplinary studies degree option may develop a proposal under the direction of a faculty advisory committee representing each program or major area of scholarship identified in the proposed interdisciplinary course of study. The course of study must be one that is not available through an existing program, must be at the level (i.e., master's or specialist) of the program to which the student has been admitted, and must combine at least two different graduate degree areas which offer the graduate degree at the master's or specialist level.

The faculty advisory committee must

Once the thesis proposal is approved for a student under Plan I, a student's request to switch to Plan II will be recommended by the department graduate committee and approved by the dean designate of the Graduate College only in rare instances when the research project becomes physically or technically impossible to implement. Faculty should approve thesis project topics only when the research proposal is within the capability of the department and University to support, and executable within the three to six hours of credit that may be achieved through completion of the thesis. If a switch from Plan I to Plan II is recommended and ultimately approved, the grade of IP (in progress) for the thesis work will remain on the transcript.

include a minimum of three members of the graduate faculty. Students submit petitions to the Graduate College in accordance with the "Petition for Interdisciplinary Degree Option Guidelines," which are available in the Graduate College. Petitions are reviewed by the graduate dean designate with input from appropriate members of the Graduate Council.

The transcript of the master's student pursuing the interdisciplinary degree option will designate the master's degree in the field of **Interdisciplinary Studies**, with a specialization noted in two or more areas.

An interdisciplinary program can be developed under either a Plan I (thesis supervised by interdepartmental committee) or Plan II (comprehensive examination or special project) basis.

Plan I

The program must include a minimum of 28 hours of course credit, plus a thesis (six hours).

Plan II

The program must include a minimum of 32 hours of course credit, plus a comprehensive examination or special project.

Selecting Plan I or Plan II

Interdisciplinary Master's Degree

A student may design a program of study incorporating two related fields leading to the simultaneous award of two master's degrees. The purpose of the student's program must be directed to developing competencies in two collateral fields of inquiry or to building an interdisciplinary specialization that integrates the knowledge and analytical skills of the two

disciplines.

To demonstrate a capacity for an effective integration of the two fields, the student must complete the basic core requirements for each curriculum with a minimum 3.0 GPA and successfully defend a thesis on a topic that is related to the two areas of major concentration or successfully complete a comprehensive examination

Dual Master's Degree

Degree Programs

drawn from the two fields. The thesis will be supervised by a faculty committee of four members drawn equally from the two departmental programs in which the degree will be awarded.

Typically, the dual degree program with a thesis will consist of approximately 22 semester hours in each discipline and a thesis of six semester hours. The non-thesis option will generally consist of approximately 24 to 27 semester hours in each discipline. In no case will the dual degree be awarded if the student has not completed the core requirements of each curriculum and a program of study of at least 50 hours, including a maximum of six hours for the thesis and no more than eight hours of independent study/readings/special pro-

grams registrations.

The rationale and program of study must be approved in advance by the respective departmental programs and the Graduate College by the submission of a graduate application for admission and a Tentative Degree Program for the dual degree before the student has accumulated 24 semester hours. The dual degree option is not available to students who already have a master's degree or who do not present an acceptable program of study prior to the completion of 24 credit hours. These students, however, may pursue a course of study leading to the awarding of a second master's degree as specified in the following section.

Second Master's Degree

A student may wish to pursue a second master's in another discipline. Provided that there is some congruity between the curricula of the two disciplines and that the elective or other courses from the first program, offered as part of the second degree program, have been completed within the prescribed six-year period, a student may be permitted to count up to six credit hours toward the second degree. At the time the student enters the second program, the program offering the curriculum leading to the second degree shall review and recommend, by the submission of a Tentative

Degree Program to the Graduate College, the courses and credits that may appropriately be included in the second master's degree program. Thesis credit OR culminating options or independent study in the first program may not be used as part of the six hours of credit for the second master's degree. The two degrees may be completed under thesis or non-thesis plans or some combination of thesis and non-thesis. This second master's degree is not open to students who have completed the first master's degree at another institution.

Master of Accountancy

The Department of Accounting and Management Information Systems offers a program of study leading to the **Master of Accountancy** degree. The mission of the Master of Accountancy (M.Acc.) program is to build upon the base of knowledge obtained at the baccalaureate level, and to further nurture the personal and professional development of those interested in areas relevant to the practice of public or corporate accounting.

Students complete a minimum of 30 semester hours including 15 hours in the professional core, nine hours in a track specialization, and six hours of electives. The core includes course work in international business, communications, professional responsibility and ethics, advanced financial reporting, and professional practice issues. Students elect to specialize in one of

three areas. The *accounting information systems* track includes courses in database management, data communications, and systems analysis and design. The *financial reporting and auditing* track includes study in financial reporting for multinationals, business assurance services, and advanced information systems for accountants. The *taxation* track courses include federal taxation and management decisions, estate planning, and taxation of partnerships/flow-through entities. Students select two elective courses to complement their track specializations.

A detailed description of the Master of Accountancy program and tracks is found under the heading of Master of Accountancy in the "Graduate Programs and Courses" section of this catalog.

Degree Programs

The **Master of Arts (M.A.)** degree offers students an opportunity for deeper experience in subject matter fields of the arts and sciences. Students may major in the following fields: **American Culture Studies, Art, College Student Personnel, Communication Studies, Economics, English, French, German, Guidance and Counseling, History, Mathematics, Philosophy, Political Science (dual degree with German only), Popular Culture, Psychology, Sociology, Spanish, Teaching English as a Second Language, and Theatre.** Specific admission procedures and degree requirements are outlined in the major field descriptions. To locate major field descriptions in the "Graduate Programs and Courses" section, consult the *Graduate Catalog* index.

Degree Requirements

Two plans are offered for the Master of Arts degree:

Plan I

Candidates under Plan I must complete an approved program of not less than 16 semester hours in the major field of study and a formal thesis in a minimum 30-hour degree program. Any exception to the major requirement must be approved by the graduate coordinator and the dean designate of the Graduate College. A department must require a written and/or oral final examination, not necessarily on the thesis, for students in Plan I.

The following departments have a foreign language requirement as part of the Plan I M.A. program: Art (in the art history specialization only), French, History, Political Science, and Spanish. Philosophy has the requirement in both M.A. plans.

Plan II

Candidates under Plan II must complete a minimum of 30 semester hours of approved credit. Of the 30 hours, 21 must be in the student's major field and must include at least the equivalent of two semester hours of research or methods course work. A nine semester-hour minor or cognate field outside of the major field or department may be included under Plan II.

Candidates must pass a final written comprehensive examination covering studies included in the field of study no later than two weeks before commencement. The examination may be taken when the student has achieved a minimum cumulative grade point average of 3.0 and has approached completion of all course work in the major. Any student who fails the comprehensive examination may, upon recommendation of the graduate committee and approval of the dean designate of the Graduate College, be granted permission to take a second examination. A student may not change from Plan II to Plan I after having failed the comprehensive examination. Upon failing a second examination, the student is dropped from the Graduate College.

Master of Arts

The **Master of Arts in Teaching (M.A.T.)** degree is for individuals planning to continue a teaching career. The program is available only to individuals who hold a valid teaching certificate.

M.A.T. degree candidates may major in the following fields: **American Culture Studies, Biological Sciences, Chemistry, French, Geology, German, History, Mathematics, Physics, and Spanish.** Specific admission procedures and degree requirements are outlined in the major field descriptions. To locate major field descriptions in the "Graduate Programs and Courses" section, consult the *Graduate Catalog* index.

The M.A.T. is designed to meet the needs of classroom teachers who:

- (1) may not require the type of academic preparation currently provided in programs leading to the Master of Arts or Master of Science degrees in their teaching area;
- (2) desire to pursue course work in a

discipline in order to improve teaching proficiency;

- (3) can profit from additional professional course work in pedagogy, curriculum development, and educational foundations;

- (4) want to update their knowledge and proficiency in the use of research as it relates to their teaching areas.

Applicants to the M.A.T. degree program must have had at least one year's teaching experience and must hold a valid teaching certificate from the state in which they are teaching.

Degree Requirements

The M.A.T. degree requires candidates to:

- (1) complete 21 to 27 semester hours in a major field. In certain cases these hours may be an interdisciplinary major. At least one of the courses in the major must be a seminar at the 600 level or above;
- (2) complete eight to 13 semester hours

Master of Arts in Teaching

Degree Programs

in professional education, including one course in pedagogy. Candidates who wish a strong supporting area in reading may elect appropriate courses at the 600 level in education;

(3) complete 35 semester hours of acceptable graduate course work with a cumulative grade point average of 3.0 or better;

(4) accumulate not more than seven semester hours for course work with grades less than "B";

(5) write a research paper that requires study beyond the usual writing requirements for courses and which demonstrates ability to apply research findings in a

classroom situation. This paper will usually be written in conjunction with the required course in pedagogy (for example, EDCI 645, EDCI 646, or EDCI 647).

(6) pass a final written comprehensive examination in the major area.

The following courses are recommended as electives in education for M.A.T. students: EDFI 600, EDFI 601, EDFI 602, EDFI 673, EDFI 641, EDFI 642, EDCI 611, EDCI 649, EDCI 650, and EDSE 531.

Candidates pursuing a reading endorsement must complete the following: EDCI 520, EDCI 621, EDCI 623, EDCI 625, as well as pass the NTE Specialty Area Test.

Master of Business Administration

The **Master of Business Administration** (M.B.A.) degree is offered in the College of Business Administration in full-time, evening, and executive formats. The broad, integrated curricula are designed to prepare individuals for roles as creative leaders in an increasingly dynamic and global business environment by broadening their knowledge, vision, and perspective and enhancing their managerial skills. The full-time program serves primarily students with limited work experience. The full-time program begins in July, stipulates that the required courses be taken in a specific sequence, and features a series of required skill seminars. The evening program serves primarily students who are working full-time. The evening program allows students to begin in any semester, offers classes Monday through Thursday evenings, and moves students through the courses in a logical sequence. The Executive M.B.A. program is discussed below. All three of the programs are designed to serve students with or without an undergraduate degree in business and attract participants from business, engineering, the applied sciences, liberal arts, medicine, and other fields. The faculty for the M.B.A. degree consists of graduate faculty members from all of the College of Business Administration departments: Accounting and Management Information Systems, Applied Statistics and Operations Research, Economics, Finance, Legal Studies and International Business, Management, and Marketing.

The M.B.A. degree stresses an understanding of the major facets of business operations and involves course work organized into three components. The foundation courses introduce topics in accounting, economics, information systems, and quantitative methods. The core courses

cover ethics and law, finance, marketing, and operations management. The capstone courses delve into economic policy, leadership and change, business strategy, and the management of a global enterprise. The M.B.A. degree emphasizes various aspects of business decision making, including the social, political, and economic implications of those decisions. More detailed descriptions of the three M.B.A. programs are found under the heading of Graduate Business Administration in the "Graduate Programs and Courses" section of this catalog.

Executive M.B.A. Program

The Executive M.B.A. program serves individuals with significant professional experience and an ongoing career who are in a position to integrate what they learn with what they do. The E.M.B.A. program has fall-only admissions, is delivered in a unique format, and emphasizes managing within a global context. The admission criteria, structure, and requirements differ from the full-time and evening M.B.A. programs and are described in greater detail under the heading of Graduate Business Administration in the "Graduate Programs and Courses" section of this catalog. Students begin the Executive M.B.A. program in the fall. They attend classes on campus in two-week sessions held twice per year in October and May. During each two-week session, executive students complete two graduate courses that require some pre- and post-session assignments. The two-week format works well for individuals who cannot guarantee their availability for one or two nights per week or on weekends for an entire semester. An executive student can complete the M.B.A. degree after twelve courses and 31 months.

Degree Programs

The primary purpose of the **Master of Education** (M.Ed.) program is to enable students to achieve a high level of competence in fulfilling various professional roles in education and allied fields. Students may major in the following fields: **Educational Administration and Supervision; Business Education; Career and Technology Education; Classroom Technology; Curriculum and Teaching; Guidance and Counseling; Human Movement, Sport, and Leisure Studies; Reading; School Psychology; and Special Education.** Specific admission procedures and degree requirements are outlined in the major field descriptions. To locate major field descriptions in the "Graduate Programs and Courses" section, consult the *Graduate Catalog* index.

Degree Requirements

Two plans are offered for the Master of Education degree:

Plan I

Candidates under Plan I must complete a minimum of 30 semester hours of credit, which may include three courses in related disciplines. These 30 hours must include an approved major of 15 to 21 semester hours and a formal thesis experience. Students must pass a final written and/or oral examination on the thesis.

Plan II

Candidates under Plan II must complete a minimum of 33 semester hours of credit, which may include three courses in related disciplines. Students must present an approved major of 15 to 21 semester hours. An approved course in research methodology is also required.

Candidates must pass a final written comprehensive examination covering studies included in the major no later than two weeks before the awarding of the degree, or, in some programs, a research paper or project. The examination may be taken when students have achieved a minimum cumulative grade point average of 3.0 and have nearly completed all course work in the major.

Students who fail the comprehensive examination may, upon recommendation of the graduate committee and the approval of the dean designate of the Graduate College, be granted permission to take a second examination. Upon failing a second examination, the student is dropped from the Graduate College.

Human Movement, Sport, and Leisure Studies degree candidates must complete a minimum of 33 semester hours of credit, including a major project.

Master of Education

The **Master of Family and Consumer Sciences** (M.F.C.S.) degree, offered in the **School of Family and Consumer Sciences**, prepares students for professional positions in business, industry, research, government, and various human service settings. The degree also serves as an excellent background for students interested in obtaining a doctoral degree. Within the M.F.C.S.

degree program, students specialize in one of two areas: human development and family studies or food and nutrition. A detailed description of the Master of Family and Consumer Sciences program is found under the heading of Family and Consumer Sciences in the "Graduate Programs and Courses" section of this catalog.

Master of Family and Consumer Sciences

The **Master of Fine Arts** (M.F.A.) degree is offered in two fields of concentration. The Master of Fine Arts in art is available through the **School of Art**. The Master of Fine Arts in creative writing is offered by the **Department of English**. Specific admission procedures and degree requirements are outlined under the headings of Art and English in the "Graduate Programs and Courses" section of this catalog.

Master of Fine Arts in Art

The Master of Fine Arts in art program is designed to produce professionally competent artists who are aware of the great

traditions in art and related cultural fields. The intent of the program is to produce graduates who are more than mere technicians in art. Students receive training in the fundamentals and achieve a level of competence which will enable them to contribute to the field of art. The M.F.A. program prepares students to become either professional artists or teachers of art after receiving the degree. Approved studio areas of specialization are: ceramics, design, drawing, fibers/fabrics, glassworking, jewelry/metals, painting, photography, printmaking, and sculpture.

Master of Fine Arts

Degree Programs

Master of Fine Arts in Creative Writing

The Master of Fine Arts in creative writing program is designed to provide developing fiction writers or poets with training in the techniques of their genre, continuous practice in writing, and detailed criticisms of their work. Candidates in the M.F.A. in Creative Writing program are

expected to develop their own writing style as fully as possible under the direction of competent and experienced instructors. Before completing degree work, students must produce a book-length thesis comparable in quality to the published work of serious contemporary professional poets and fiction writers.

Master of Industrial Technology

The **Master of Industrial Technology** (M.I.T.) degree is offered in the **College of Technology**. The degree program is designed for individuals interested in manufacturing technology or construction management and technology.

The *manufacturing technology* specialization includes study of advanced-level automation and production systems, instrumentation and control, engineering design with emphasis on computer-aided design, computer-integrated manufacturing, quality sciences, and related advanced course work.

The *construction management and technology* specialization includes study of advanced-level construction contract management, program management, management models for construction operations, cost control, construction risk management, and related advanced course work.

The objectives of the program are to prepare students with advanced technical knowledge and skills, and to develop the

ability to conduct applied industrial research as well as to acquire leadership skills for managing industrial projects according to the student's area of specialization. The objectives are met through advanced technology course work in one of the specialization areas, and a core consisting of study in management models, problem solving, communication, and industrial research methods. This program is further augmented by selected advanced course work in business operations to enhance the competencies needed of today's technical manager. A special feature of the degree program is the flexibility of course selection in meeting needs, interests, and career goals of students while addressing the needs of industry. Therefore, the program is responsive to the changing requirements of industry for advanced technical management personnel.

A description of the Master of Industrial Technology program and specializations is found under the heading of Technology in the "Graduate Programs and Courses" section of this catalog.

Master of Music

The **Master of Music** (M.M.) degree is offered in the **College of Musical Arts**. The Master of Music program offers students an opportunity to develop an in-depth understanding of the major field, a broad exposure to other aspects of the art, and research and/or creative experience in the area of specialization. The program is designed for students who have completed an appropri-

ate undergraduate degree or its equivalent, and who are qualified for advanced study by reason of musical and intellectual abilities and achievements. A detailed description of the Master of Music program is found under the heading of Music in the "Graduate Programs and Courses" section of this catalog.

Master of Organization Development

The **Master of Organization Development** (M.O.D.) program is designed to develop students' managerial skills for building and changing organizations, by helping students to understand and meet the changing demands of today's globally competitive environment.

The M.O.D. program is also offered in an executive format. The **Executive Master of Organization Development** (E.M.O.D.) is an accredited program offered in an innovative, convenient weekend schedule. The

E.M.O.D. is intended for managers, owners of small businesses, personnel and training professionals, consultants, and other non-traditional students who want a graduate education but cannot pursue their degree through a traditional academic schedule. A detailed description of the Master of Organization Development programs is found under the heading of Organization Development in the "Graduate Programs and Courses" section of this catalog.

Degree Programs

The **Master of Public Administration** (M.P.A.) degree is offered in the **Department of Political Science**. The master's program in Public Administration and International Affairs is designed to meet the increasing demand for skilled public administrators by providing professional education to individuals who wish to prepare themselves for administrative careers and leadership positions in government. While the majority of graduates may take positions in municipal, state, and federal government, the

degree program can also lead to service in other organizations associated with government affairs such as private foundations, nonprofit service agencies, political organizations, and other community institutions. Graduates also take positions in the private sector. A detailed description of the masters program in Public Administration and International Affairs is found under the heading of Political Science in the "Graduate Programs and Courses" section of this catalog.

Master of Public Administration

The Northwest Ohio Consortium Master of Public Health (MPH) degree program is offered jointly by Bowling Green State University (BGSU), the Medical College of Ohio (MCO), and the University of Toledo (UT). The program is designed for working professionals in a variety of health-related fields.

issues from scientific, regulatory, and administrative perspectives for private industries, regulatory agencies, consulting firms, and other organizations.

Master of Public Health

All students complete a core sequence of six courses. Specialized training is provided in three different areas of concentration or tracks. Each track consists of four prescribed courses that are supplemented by three electives. Students then complete a capstone experience comprised of a professional internship or project and an integrative seminar.

The **Health Promotion and Evaluation** major prepares students to assist communities, organizations, and individuals in working toward a healthier society by using appropriate educational, behavioral, and social change strategies.

The **Public Health Administration** major prepares students to assume applicable administrative roles in government and community agencies, health care facilities, and private industry.

The **Environmental and Occupational Health** major prepares students to address environmental and occupational health

A more complete description of the Master of Public Health program is found under the heading of Public Health Administration in the "Graduate Programs and Courses" section of this catalog.

The **Master of Rehabilitation Counseling** (M.R.C.) degree is designed to enable students to achieve a high degree of competence in counseling theory and skills, rehabilitation practices, and the coordination of services. These skills can be applied in a variety of programs which serve individuals with behavioral, mental, emotional, and physical disabilities, as well as substance abuse problems. Classroom and

practicum experiences are combined with supervised clinical experience in agencies. Students choose internship sites from a variety of agencies, locally or nationally. A detailed description of the Master of Rehabilitation Counseling program is found under the heading of Rehabilitation Counseling in the "Graduate Programs and Courses" section of this catalog.

Master of Rehabilitation Counseling

The **Master of Science** (M.S.) degree offers students an opportunity for professional experience in certain subject matter fields in the sciences. Fields of major concentration for the Master of Science degree are: **Applied Statistics, Biological Sciences, Chemistry, Communication Disorders, Computer Science, Geology (Plan I only), and Physics**. Specific admission procedures and degree requirements are outlined in the major field descriptions.

To locate major field descriptions in the "Graduate Programs and Courses" section, consult the *Graduate Catalog* index.

Master of Science

Degree Requirements

Two plans are offered for this degree.

Plan I

Candidates under Plan I must present an approved major of not less than 16 semester hours of credit and a formal thesis

Degree Programs

in a 30-hour minimum degree program. Any exception to the major requirement must be approved by the graduate coordinator and the dean designate of the Graduate College. A department must require a written and/or oral final examination, not necessarily on the thesis, for a student in Plan I of the master's degree program.

Plan II

Candidates under Plan II must complete a minimum of 30 semester hours of credit, including two hours in a graduate research seminar, and 20 additional hours in the major field. An eight-hour minor or cognate field outside the department may also be included. An interdepartmental major may be composed of graduate courses in two or more departments.

Candidates must pass a final written comprehensive examination covering studies included in the major not later than four weeks before the awarding of the degree. The examination may be taken when students have achieved a minimum cumulative grade point average of 3.0 and have approached completion of all course work in the major. Any student who fails the comprehensive examination may, upon recommendation of the graduate committee and approval of the dean designate of the Graduate College, be granted permission to take a second examination. A student may not change from Plan II to Plan I after having attempted the comprehensive examination. Upon failing a second examination, the student is dropped from the Graduate College.

Specialist in Applied Biology

The **Specialist in Applied Biology** program, offered in the **Department of Biological Sciences**, is co- or post-master's work designed to provide advanced preparation in highly specialized fields of biological laboratory sciences. The degree is approved for study in immunohematology.

Degree Requirements

For completion of the program students are required to present a minimum of 63 semester hours of course work beyond the bachelor's degree, including a thesis, specified courses, and any requirements for eligibility to take the examination for certification in the specialized area.

Specific requirements include:

Major Field: BIOL 603 and BIOL 699 or their equivalents; CHEM 545 and CHEM 546 or their equivalents.

Area of Specialization: A minimum of 24 semester hours of courses applicable to the specialty.

Practicum or Field Service: Service appropriate to the area of specialization.

Cognate Fields: Appropriate graduate-level courses in areas such as chemistry, management, or computer science may be applied to the degree if approved by the student's committee.

Residence Requirement

Students are considered to be in residence whenever they are registered on campus as graduate students. Students must comply with one of the following three alternatives:

1. satisfactory completion of a minimum of four semester hours of study in each of two semesters;

2. full-time study for one semester with a minimum of eight semester hours;

3. full-time study for a summer session with a minimum of eight semester hours.

Certification

When certification by a professional society is sought in an area of specialization, the eligibility requirements for certification are necessary for the specialist degree. In immunohematology-blood banking, certification is granted by the American Society of Clinical Pathologists in cooperation with the American Association of Blood Banks.

Comprehensive Examination

In addition to the regular course examinations, students are required to pass a comprehensive oral examination during the final period of registration for course work.

Completion of Work

Candidates must complete all requirements for their degree within six years of the end of the earliest course used to fulfill degree requirements on the Tentative Degree Program.

Transfer Credit

A maximum of 30 semester hours of graduate work taken elsewhere may be applied toward the degree. At least 33 hours in this program must be completed at the University.

Degree Programs

Specialist in Education

The **Specialist in Education** program is post-master's work designed primarily to provide advanced preparation in the major fields of **Administration and Supervision, Mathematics Supervision, Reading, and School Psychology**. Admission procedures and degree requirements are outlined in the major field descriptions. To locate major field descriptions, consult the *Graduate Catalog* index.

Admission Procedure

Applicants for admission to the **Specialist in Education** program must comply with all requirements outlined in the "Graduate Admission" section of this catalog. In addition, applicants must present evidence of satisfactory experience as teachers or of experience appropriate to the field of specialization.

Degree Requirements

Students are required to complete a minimum of 30 semester hours of graduate course work beyond the master's degree including all specific requirements for the degree and for certification where relevant.

Specific requirements include:

Education Courses: EDAS 621, EDAS 625, EDCI 611, EDFI 671, EDFI 641, and EDFI 642, or their equivalents. These courses may be completed either in conjunction with the master's degree or as part of the post-master's work.

Practicum or Field Service Experience: This phase of the program must be appropriate to the area of specialization.

Cognate Field: Any specific requirements are stated under the field or specialization description.

Students should have a Tentative Degree Program on file early in the Ed.S. program. Students must achieve a minimum

cumulative grade point average of 3.0 in all graduate work to be eligible for the degree.

Residence Requirement

Students must be registered on campus for at least eight hours in one semester of the academic year or during the summer semester. Students must complete at least 51 percent of their graduate course work on the main campus (with the exception of state-approved degree programs carrying off-campus degree authority).

Comprehensive Examination

In addition to the regular course examinations, students are required to pass a comprehensive examination during the final period of registration for course work.

Completion of Work

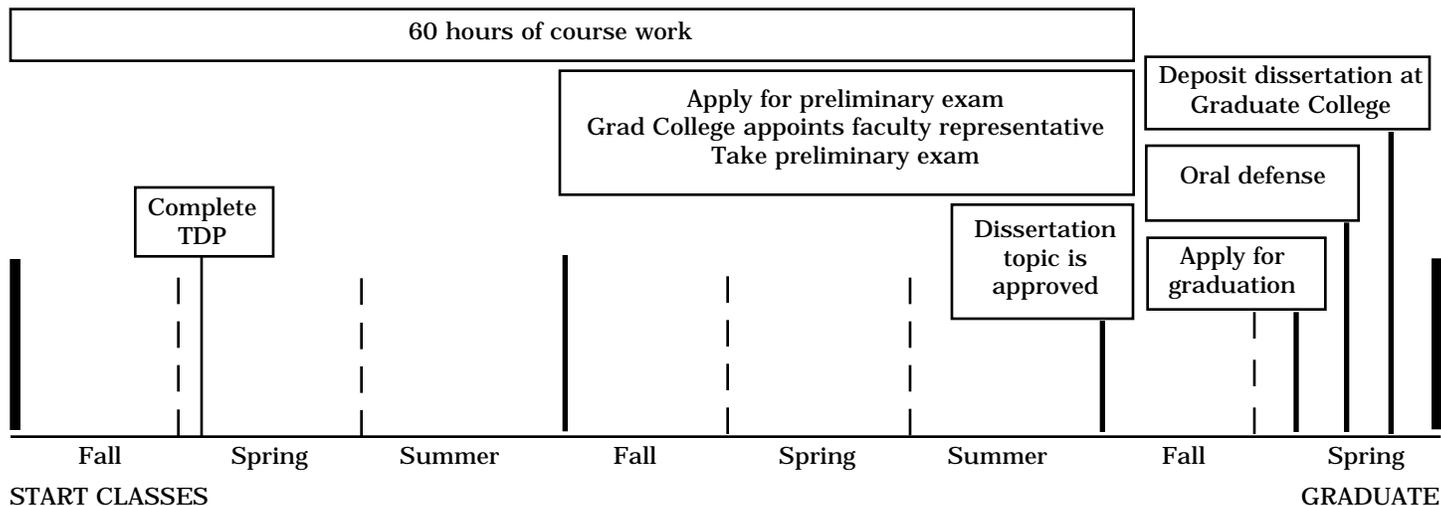
Candidates must complete all requirements for the Ed.S. degree within six years of the date of initial enrollment. Time served in the armed forces or on approved leave of absence is exempt from this limitation.

Transfer Credit

A minimum of 63 post-baccalaureate semester credits are required for the specialist degree. Typically, 33 of these credits are acquired while completing a master's degree in a related field; hence, a minimum of 30 post-master's semester credits are usually needed for completion of the specialist degree. Up to six semester hours of graduate work may be transferred into the post-master's component of the specialist degree with the approval of the program area and Graduate College. Under no circumstances, however, may graduate credits be transferred into the 30-hour post-master's component of the specialist degree if they are also applied toward another degree.

Degree Programs

Suggested Timeline for Doctoral Students



Doctor of Philosophy and Doctor of Education

The doctoral degrees (Ph.D. and Ed.D.) are conferred in recognition of outstanding ability and scholarship in a recognized field of learning after an extended period of study and investigation. Much of the student's work is in a selected field of learning in which the student has gained mastery of the method of advanced study as demonstrated finally in a doctoral dissertation. While a

well-prepared student of outstanding ability may secure the degree upon the completion of three years of study beyond the bachelor's degree, time is secondary to maturity and achievement of the student as a scholar.

Specific doctoral degree requirements are outlined in the "Graduate Programs and Courses" section of this catalog.

Admission

A student is admitted as a doctoral applicant upon approval by the departmental doctoral committee and the dean designate of the Graduate College. Admission as a doctoral applicant does not imply admission to candidacy.

Residence Requirements

A student is considered to be in residence when registered on campus as a graduate student. The minimum residence requirement beyond the master's degree or equivalent may be met by satisfactorily completing 15 hours of course work (not 799 research) on the main campus in no more nor fewer than two consecutive terms with at least three hours of registration in either of the two terms. The residence requirements of individual departments may exceed this minimum requirement.

Credit Hour Requirements

Students must complete at least 60 semester hours of graduate credit beyond the master's degree or 90 semester hours beyond the bachelor's degree. These hours must include at least 16 hours of disserta-

tion research (no more than 30 are applicable to the degree). The rest of the student's course of study is designed, with the advice of the student's doctoral committee, to meet the student's needs and interests.

Students must complete a preliminary written and oral examination usually by the end of the second year of study. Students successfully completing this examination are considered to be candidates for the Ph.D. degree.

Unless a degree program has been specifically approved by the Ohio Board of Regents as an off-campus graduate degree program, a student must complete at least 51 percent of the graduate course work on the main campus of the University, as distinguished from Firelands branch campus or an extension center.

The policy concerning transfer of credit from other institutions into graduate degree programs at the University is described in this catalog under "Academic Regulations."

500-level Courses

For doctoral-level students, the number of 500-level credits that may be counted toward the minimum required hours (60 post-master's) for the Ph.D. shall not exceed

Degree Programs

ten hours or three courses in post-master's studies.

Time Limit for Completion of Work

The time limit to complete all degree requirements for doctoral students is eight years from the end of the earliest course used to fulfill degree requirements on the tentative degree program (TDP). A doctoral student may apply for an extension of one

year if the request for an extension is made before the time limit has elapsed. Doctoral students may be granted two extensions, not to exceed a total of two calendar years.

If the extension is approved by the graduate coordinator and the graduate dean designate, revalidation of outdated courses (over eight but no more than ten years old) will be necessary.

Language Requirement

Some doctoral programs require a basic level of foreign language proficiency; others do not. Descriptions of the various ways that

students can fulfill the foreign language requirement, when it is mandatory, are located in the descriptions of individual doctoral programs.

The College of Technology is a member of a consortium that offers the Ph.D. in Technology Management through Indiana State University. Other member institutions are Central Missouri State University, East Carolina University, North Carolina A&T State University, Texas Southern University, and the University of Wisconsin - Stout. The degree consists of a research core and dissertation (27-33 hours), a general technology core (15 hours), a specialization (24-

30 hours), and an internship (six hours). Cognates are also possible. Most of the graduate course work may be accomplished via distance technology; however, a short residency requirement must be satisfied. For additional information contact the Director of Graduate Studies, College of Technology, at (419) 372-7613, or check the website for current information (web.indstate.edu/consortphd).

Consortium Ph.D. in Technology Management

The Interdisciplinary Studies degree option is a response to increasing interest by students and faculty in an interdisciplinary approach to graduate study and scholarship. It is available to students who have been admitted to a doctoral degree program, but who have unique educational needs that cannot be met within a single degree program. It is limited to those areas in which sufficient faculty and adequate material resources exist to support the proposed course of study.

Any student who has been admitted to a doctoral degree program and who is interested in pursuing the **Interdisciplinary Studies** degree option may develop a proposal under the direction of a faculty advisory committee representing each program or major area of scholarship identified in the proposed interdisciplinary course of study. The course of study must be one that is not available through an

existing program, must be at the level (i.e., master's, specialist, or doctoral) of the program to which the student has been admitted, and must combine at least two different graduate degree areas which offer the graduate degree at the level (i.e., master's, specialist, or doctoral) sought by the student. The faculty advisory committee must include a minimum of three members of the graduate faculty for a master's student and a minimum of four members of the graduate faculty for a doctoral student.

Students submit their proposals to the Graduate College in accordance with the "Petition for Interdisciplinary Degree Options Guidelines," available at the Graduate College.

The transcript of doctoral students pursuing the interdisciplinary degree option will designate the doctoral degree in the field of **Interdisciplinary Studies** with a specialization noted in two or more areas.

Inter- disciplinary Doctoral Degree

Degree Programs

Doctoral Committee

Each Ph.D. student is responsible for forming a preliminary exam and dissertation committee. The doctoral committees consist of a minimum of three professors from the student's program and a graduate faculty representative. A faculty member cannot be required to serve on a doctoral committee. Students are also responsible for fulfilling any additional departmental requirements regarding committee membership.

The doctoral committee prepares and administers the preliminary examination. For dissertation work, students may retain original committee members or change committee members after passing the preliminary examination. Any changes in committee membership must be approved by the graduate coordinator and filed with the Graduate College. Students must also adhere to specific departmental guidelines for the dissertation committee. It should be noted that results of examinations conducted without the participation of the representatives are not acceptable.

Graduate Faculty Representative

The Graduate College appoints one graduate faculty representative to each doctoral student's committee from the list of qualified members of the regular graduate faculty.

All members of the regular graduate faculty are eligible for appointment regardless of whether their program area offers a graduate degree. Thus, prior experience as a dissertation advisor is not a prerequisite for serving as a graduate faculty representative on doctoral committees.

The graduate dean designate, attempts to rotate these assignments to ensure broad participation among the members of the regular graduate faculty. The Graduate College does not invite recommendations or suggestions concerning the names of particular faculty members to be appointed as the graduate faculty representative for the committee of a particular doctoral student.

Although the graduate faculty representative is not assigned as a subject matter expert, the representative may have general familiarity with the disciplinary area of the student. In cases where an individual graduate student (or the student's doctoral committee) feels the need for an interdisciplinary contribution from a faculty member outside the student's program area, such an individual may be included on the student's

doctoral committee in addition to the graduate faculty representative appointed by the dean designate.

In general, the graduate faculty representative to a Ph.D. committee has two primary responsibilities:

(1) to assure that all minimum standards of the Graduate College, both written and implied, have been met in all aspects of the preliminary examination process and in the writing of the dissertation; and

(2) to ensure that the student is treated fairly and equitably in all aspects of the exam and dissertation processes.

The graduate faculty representative on preliminary examination and dissertation committees is a full member and must be a participant in all deliberations and actions. As it is for any member of the committee, results of examinations conducted without the participation of the representatives are not acceptable. The representative is expected to contribute to the examinations of a candidate in order to ensure the Graduate College of the satisfactory quality of the student's performance. The representative is therefore expected to read and criticize the dissertation. Any comments and suggestions are to carry equal weight with those of all other committee members. The representative is not to sign the dissertation unless the suggestions have been considered, the questions have been answered, and there is evidence that the student has successfully completed the requirements for the Ph.D. degree.

The appointment of the graduate faculty representative should be made before the preliminary examination is taken; the representative may assist in the preparation of the examination.

The graduate faculty representative is responsible for monitoring both the content and form of the material under review. This monitoring includes an assessment of the academic quality of the written examination, the oral examination, and the dissertation manuscript.

The procedures associated with the administration of the examination and the dissertation defense are also the province of the graduate faculty representative. Under this procedural category are included such considerations as appropriate scheduling and notification of committee meetings, distribution of material in advance of committee meetings, and the protection of the student's rights.

Degree Programs

All doctoral students must take a preliminary examination, administered by their preliminary examination committee. Some departments also require students to take qualifying examinations at an earlier stage in the doctoral process. Students must contact their department or departmental graduate coordinator for specific details.

Preliminary Examination

This examination is both written and oral. The student may request permission to take this examination after having:

- (1) removed any conditions upon admission;
- (2) completed or approached completion of at least 90 hours in the approved course of study beyond the bachelor's degree; and
- (3) achieved a cumulative grade point average of at least 3.2 on all graduate work, including work at the master's level. The request to take the examination, approved by the graduate coordinator, must be filed in the office of the Graduate College at least

four weeks prior to the date of the examination. The Graduate College will appoint a graduate faculty representative to participate in the examination and dissertation once the examination request has been filed.

For a student to pass the comprehensive, preliminary, or final examination, the committee must either cast a unanimous vote or a vote with one dissenter. If the committee decides to pass the candidate with conditions, the conditions must be met before the exam is recorded as satisfactory. These conditions must be conveyed in writing to the Graduate College.

Re-examination

If the student fails the preliminary examination, he or she may (after a lapse of six months or more) take a second examination upon the recommendation of the departmental doctoral committee. Dismissal from the doctoral program will result if the second examination is failed.

Candidacy

After completing the foreign language requirement, where required, and passing the preliminary examination, a student may achieve candidacy by securing approval for the dissertation topic from the graduate coordinator, the departmental doctoral committee, and the Graduate College.

Depending upon program guidelines, the composition of this committee may be similar to or different from the preliminary examination committee. However, in all instances, the graduate faculty representative appointed to the preliminary examination committee also serves on the dissertation committee.

The dissertation is a mature piece of writing embodying the results of significant research by the student in a specialized area. Students should begin registering for dissertation research (799) at the time when they begin planning their dissertation. Students who register for dissertation research are required to maintain continuous registration in dissertation research from one semester to another, regardless of whether they are in residence, until the research is completed and the dissertation is accepted by the Graduate College. Students are not required to register for dissertation research during summer sessions unless they use university services. However, they must enroll in dissertation research for the summer term in which they graduate. The

minimum continuous registration for a dissertation student is one hour per semester. A student who has completed the hours designated for dissertation research in the Tentative Degree Program but has not completed the dissertation is required to register for at least one hour each semester until the degree is granted.

Students who do not maintain continuous registration will be required to "back register" for all terms they have missed. Tuition will be assessed at the current rates in effect when the "back registration" is processed.

A doctoral student must register for a minimum of 16 credits of dissertation research (799) as a degree requirement.

Final Examination

Each candidate must pass a final oral examination, also called a dissertation defense, which is administered by the dissertation committee. The examination covers the dissertation and also may cover directly related fields of study. A written examination may be required at the discretion of the committee.

Because the dissertation defense is traditionally a public defense of research, the student is required to publicize the date by notifying the *Monitor*, the in-house weekly newsletter for faculty and staff, three weeks before the final oral examination is to be held.

Examinations

Dissertation Research

Degree Programs

Retaking the Final Exam

If a student does not pass the dissertation defense, he or she may take a second examination, upon the recommendation of the dissertation committee, four months or more after the date of the first examination. No student is permitted to take the final examination more than twice.

Deadlines

Students must be aware of deadlines established by the Graduate College and published in the Graduate College calendar. Specifically, the following procedures should be followed:

1. Formal application for graduation with the doctoral degree should be filed at least ten weeks prior to the commencement at which the student expects to receive the degree.
2. Copies of the final draft of the dissertation should be submitted to the dissertation committee sufficiently prior to the date set for the final examination to allow for a rigorous and careful reading of the manuscript by the committee. The graduate coordinator or program handbook should be consulted for this deadline.
3. A student must pass the final examination not later than six weeks prior to the commencement at which the degree is to be conferred. A student should be registered at

the time he or she takes the oral examination.

4. An error-free copy of the completed dissertation must be deposited with the office of the Graduate College not later than Monday of the sixth week before commencement.

Publication of Dissertation

Upon accepting the dissertation and the abstract, the dissertation committee certifies approval for publication by University Microfilms International. The student is charged \$70 for microfilming and binding. After the degree has been granted, the dissertation is microfilmed twice. The bound dissertation and one microfilmed copy is placed in Jerome Library. The master microfilm negative remains on deposit with University Microfilms International at Ann Arbor, Michigan. Copies of the microfilmed or paper dissertation are available from University Microfilms International at nominal costs.

Students may make other arrangements for publication, provided such publication does not interfere with publication by University Microfilms International. If students wish to copyright their dissertations, they may do so through University Microfilm at a cost of \$45. Copyrighting is not required by the Graduate College.

Summary of Degree Fields and Specializations

Master's degrees are available in these program areas and fields:

Master of Accountancy (see specific tracks in the "Graduate Programs and Courses" section)

Master of Arts – American Culture Studies, Art, College Student Personnel, Economics, English, French, German, Communication Studies, Guidance and Counseling, History, Interdisciplinary Studies, Mathematics, Philosophy, Political Science (dual degree, with German only), Popular Culture, Psychology, Scientific and Technical Communication, Sociology, Spanish, Teaching English as a Second Language, Theatre

Master of Arts in Teaching – American Culture Studies, Biological Sciences, Chemistry, French, Geology, German, History, Mathematics, Physics, Spanish

Master of Arts/Science in Interdisciplinary Studies

Master of Business Administration – Finance, Management Information Systems, Marketing, Supply Chain Management

Master of Education – Business Education; Career and Technology Education; Classroom Technology; Curriculum and Teaching; Educational Administration and Supervision; Guidance and Counseling; Human Movement, Sport, and Leisure Studies (Developmental Kinesiology, Recreation and Leisure, Sport Administration); Interdisciplinary Studies; Reading; School Psychology; Special Education

Master of Family and Consumer Sciences – Human Development and Family Studies, Food and Nutrition

Master of Fine Arts – Art, Creative Writing

Master of Industrial Technology – Construction Management and Technology, Manufacturing Technology

Master of Music – Music Composition, Music Education, Music History, Music Performance, Music Theory

Master of Organization Development

Master of Public Administration

Master of Public Health

Master of Rehabilitation Counseling

Master of Science – Applied Statistics, Biological Sciences, Chemistry, Communication Disorders, Computer Science, Geology, Interdisciplinary Studies, Physics

Other graduate programs include:

Education Specialist – Administration and Supervision, Mathematics Supervision, Reading, School Psychology

Specialist in Applied Biology – Immunohematology

Doctoral degrees are available in these program areas and fields:

American Culture Studies – Communication, English, Ethnic Studies, History, Philosophy, Popular Culture, Sociology

Biological Sciences – Aquatic Ecology, Cell/Molecular Biology, Conservation Biology and Genetics, Entomology/Parasitology, Microbiology, Neuroscience and Behavior, Physiology, Plant Science

Communication Disorders

Communication Studies – Media Studies, Communication and Culture

English – Rhetoric and Writing

Higher Education Administration

History – Policy History

Interdisciplinary Studies

Leadership Studies

Mathematics – Algebra, Analysis, Numerical Analysis, Probability, Statistics

Philosophy (Applied) – Environmental Philosophy, Moral and Political Philosophy, Philosophy and Business, Philosophy and Law, Philosophy and Medicine, Philosophy of Mind

Photochemical Sciences – Biophysical Chemistry, Electron and Energy Transfer, Electronic Spectroscopy, Fast Reaction Kinetics, Molecular Excited States, Nonlinear Optics and Optoelectronics, Nucleic Acid Oxidation and Photochemistry, Photoelectrochemistry and Applications, Photopolymerization Science, Photosynthesis, Vibrational Photochemistry

Psychology – Behavioral Neuroscience, Clinical Psychology, Cognitive Science, Developmental Psychology, Industrial-Organizational Psychology, Quantitative Psychology

Sociology – Criminology/Deviance, Demography, Family Studies, Social Psychology,

Technology Management (Consortium degree)

Theatre – Dramatic Literature, History, Pedagogy (Directing and Staging), Performance Studies, Performance Theory, Theatre History, Theory and Criticism,

Since the following section, "Graduate Programs and Courses," is organized primarily along departmental lines, the index of this catalog should be consulted for particular fields and specializations in master's degrees.

Graduate Programs and Courses

Degree Requirements

General degree requirements that apply to each program listed below are outlined in the "Degree Programs" section of this catalog. Variations and additional requirements for specific programs are included in the program descriptions.

Course Offerings

The listing of courses in this section of the catalog does not constitute a guarantee or contract that any particular course will be offered during a given year. The

designation *on demand* identifies courses that are only scheduled in response to sufficient student demand.

Numbering Systems for Courses

Courses numbered 500-799 are for graduate students only. Courses at the 700-level are intended primarily for doctoral students. Courses at the 600-level are intended primarily for master's degree students. Courses at the 500-level may be cross-listed with 400-level undergraduate courses.

Symbols in Course Descriptions

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

Summer Courses

Many of these courses are also offered in the summer. For a complete list of courses offered during the summer session, see the Summer Bulletin.

Accounting and Management Information Systems Master of Accountancy

Alan T. Lord, Chair/Graduate Coordinator

Room: 332 Business Administration Building

Phone: 419-372-2767

E-mail: infoamis@cba.bgsu.edu

Graduate Faculty

Associate Professors - W. David Albrecht, Ph.D.; Patricia Essex, Ph.D.; Alan T. Lord, Ph.D.; Sachi Sakthivel, Ph.D.

Assistant Professors - Andreas Nicolaou, D.B.A.; Madhavarao Raghunathan, Ph.D.; Paul Schauer, Ph.D.; David Stott, Ph.D.

The Department of Accounting and Management Information Systems offers a program of study leading to the **Master of Accountancy** degree. The mission of the Master of Accountancy (M.Acc.) program is to build upon the base of knowledge obtained at the baccalaureate level and to further nurture the personal and professional development of those interested in graduate education in areas relevant to the practice of public or corporate accounting. The department is committed to offering programs and a

setting that attract students as they choose among competing programs and offers an opportunity to specialize in accounting information systems, financial reporting and auditing, and taxation.

Prerequisites to Graduate Work

Graduates from any accredited baccalaureate program may be admitted to the M.Acc. program. However, the program is designed primarily for students with a business degree and an undergraduate accounting specialization from an accredited school. All M.Acc. students must obtain an appropriate background prior to undertaking graduate accounting courses including: (1) satisfactory competencies in written communications and personal computer skills; (2) an appropriate general business background; (3) an appropriate undergraduate background in financial accounting, managerial accounting, auditing, taxation, and accounting information systems.

Admission Procedure

Applicants for the M.Acc. program should follow the instructions outlined in the "Graduate Admission" section of this catalog. Application forms and information are available from the office of Graduate Studies in Business (GSB), 369 Business Administration Building, or from the Department of Accounting and Management Information Systems, 332 Business Administration Build-

ing. Each student is independently evaluated for admission to the M.Acc. program taking into account such things as undergraduate GPA, GMAT scores, prior work experience, and recommendations.

Degree Requirements

Requirements for the M.Acc. program are subject to continuous improvement and can differ from those listed below. New students will be given official requirements prior to the start of their first semester of graduate course work. The time required to complete the M.Acc. program will vary from one to two years. Students with all of the background completed prior to program entry can expect to complete the M.Acc. within one calendar year. Requirements beyond the foundation materials described above are broadly defined as follows:

- a. Communications - 3 hours
- b. Ethics/Social Responsibility/Environmental Issues - 3 hours
- c. International Business - 3 hours
- d. Accounting course work - 15 hours
- e. Electives - 6 hours

All elective course work must be approved by the student's graduate advisor and should "fit" student objectives and career plans. Each student's program must include a minimum of 18 semester hours in courses reserved exclusively for

Accounting and Management Information Systems

graduate students. The accounting course work must include at least 12 semester hours in courses reserved exclusively for graduate students.

Each student is required to complete one of three specialization tracks within the M.Acc., accounting information systems (ACCT 613, 614, 619); financial reporting and auditing (ACCT 624, 654, 655); or taxation (ACCT 643, 644, 645). Students who elect the tax specialization must have completed the equivalent of ACCT 542 prior to program entry or elect that course as part of their M.Acc. study. A capstone course in the professional practice of accounting (ACCT 675) must be taken during the last 10 hours of the student's program. This course is designed to provide a synthesis of public accounting practice and serve as a culminating experience for M.Acc. students. In addition to the accounting course work listed above, all students are required to take (1) GBA 672, International Business Operations, (2) a graduate level course in Communications and (3) a graduate level course in Ethics, Social Responsibility, or Environmental Issues. The specific course work required for Communications and Ethics/Social Responsibility/Environmental Issues depends upon the student's background and interests and must be approved by the student's graduate advisor.

Courses for Graduates

ACCT 522. Intermediate Financial Accounting II (3). Development and application of financial accounting concepts and generally accepted accounting principles. Emphasis on long-term liabilities, investments, pensions, leases, earnings per share, and income tax allocation. Prerequisite: consent of master of accountancy graduate coordinator.

ACCT 525. Accounting for Governmental and Not-for-profit Entities (3). Study of the unique features of government and not-for-profit accounting. Topics include capital acquisition, budgeting techniques, performance evaluation, and controls of various non-profit-oriented organizations. FASB and GASB reporting requirements relevant to various stakeholders are

covered along with typical accounting systems. Prerequisite: ACCT 522 or equivalent.

ACCT 532. Intermediate Managerial Accounting (3). 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: consent of master of accountancy graduate coordinator.

ACCT 539. Controllership (3). Case study course focusing on the controller's function including the compliance roles of taxation and financial reporting, as well as the managerial role of producing information for planning, evaluation, and controlling the firm's activities. Prerequisite: ACCT 532 or equivalent.

ACCT 542. Corporate Taxation (3). Determination of taxable income and analysis of reporting requirements related to corporations. Application of federal tax laws to special problems of corporations, including stock redemptions, capital structure, liquidation, and corporate accumulations. Prerequisite: MBA 600 or equivalent.

ACCT 544. Estate Planning (3). Various estate planning tools and techniques. Taxation of transfers effected at death. Taxation of lifetime transfers and generation-skipping transfers. Concepts and computational aspects of federal and state income taxation of estate, trusts and their beneficiaries. Prerequisite: MBA 600 or equivalent.

ACCT 551. Auditing I (3). Auditing principles and procedures for 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: ACCT 560 or consent of master of accountancy graduate coordinator.

ACCT 560. Accounting Information Systems (3). General systems concepts and theory. The collection and processing of accounting information, internal control aspects of

accounting systems. Systems life cycle in an accounting framework. The interface of accounting systems and computer technology. Prerequisite: consent of master of accountancy graduate coordinator.

ACCT 570. Readings in Accounting (1-3). Directed readings in selected topics of accounting. Prerequisite: consent of master of accountancy graduate coordinator.

ACCT 580. Seminar in Accounting (1-3). Group study of special topics related to accounting practice. Content of seminar will vary. Prerequisite: consent of master of accountancy graduate coordinator.

ACCT 613. Database Management for Accountants (3). Theory and practice of database management. Data modeling, logical and physical design techniques; implementation, administration and security issues as they relate to databases. Emphasis on relational DBMS. A significant project involving many aspects of design and implementation is required. Prerequisite: MBA 621 or equivalent and consent of master of accountancy graduate coordinator.

ACCT 614. Systems Analysis and Design (3). Systems analysis and design for computer-based information systems. Coverage of the system development life cycle; determination of information requirements; tools, techniques, and methods of system development; analysis of feasibility; and project management. Prerequisite: ACCT 613 or equivalent and consent of master of accountancy graduate coordinator.

ACCT 619. Data Communications for Accounting Environments (3). Principles of data communications and the study of managerial implications of the data communications industry and its impact on the accounting environment. Topics include telecommunications hardware and software, local- and wide-area data network structures and management, and pertinent issues related to the data communications industry. Prerequisite: consent of master of accountancy graduate coordinator.

ACCT 621. Advanced Financial Reporting (3). Discussion of the theory underlying financial reporting,

Accounting and Management Information Systems

including the financial accounting concept statements and their relevance in the standard-setting process. Evaluation of accounting procedures related to measurement and reporting of financial conditions and operational results. Analysis of business combinations and consolidations and other selected topics. Prerequisite: ACCT 522 and consent of master of accountancy graduate coordinator.

ACCT 624. Financial Reporting for Multinationals (3). Study of worldwide accounting control and reporting problems and the impact of cultural and legal constraints. Application of this knowledge to achieve an objective appraisal of various international accounting principles and pronouncements. Prerequisite: ACCT 522 pr equivalent and consent of the master of accountancy graduate coordinator.

ACCT 643. Federal Taxation and Management Decisions (3). Examination and use of the administrative, legislative, and judicial sources of current tax laws and regulations; tax planning and study of the effects of taxation on the managerial decision process. Emphasis on research techniques, including computer-based resources, in finding competent and professional conclusions to tax problems. Prerequisite: MBA 600 or equivalent.

ACCT 645. Taxation of Partnerships/Flow-through Entities (3). Federal income taxation of partners and partnerships. Taxation of corporations that choose to forgo standard taxation by making the S-Corporation election. Limited liability companies and the income tax ramifications of operating in that business form. Prerequisite: MBA 600 or equivalent.

ACCT 649. Accounting Communications (3) Fall. This course provides students in the Master of Accountancy program theory of and practice in oral and written communication. The course is based on communication situations involving

practicing accountants. Enrollment limited to 15. Prerequisite: acceptance into Master of Accountancy program and consent of instructor.

ACCT 654. Business Assurance Services (3). An examination of the nature of assurance services with an emphasis on evaluating the quality of information. Contemporary auditing techniques are explored with a focus on the entity's control systems. Prerequisite: ACCT 551 or equivalent and consent of the master of accountancy graduate coordinator.

ACCT 655. Advanced Information Systems for Accountants (3). An examination of trends and issues in information systems as they apply to the financial reporting and assurance services domains, Special focus on networked systems, control issues, and knowledge management. Hands-on experience with relevant computer software. Prerequisite: ACCT 560 or equivalent and consent of the master of accountancy graduate coordinator.

ACCT 656. Information Systems Auditing and Control (3). Basic concepts of information systems audit and control principles necessary to facilitate the expression of an opinion on financial statements; evaluate the effectiveness, security, and functioning of controls; prepare a meaningful management letter. Introduces a computer auditing software package and uses the software to audit computerized information. Prerequisite: ACCT 560 and 619 or equivalents or consent of master of accountancy graduate coordinator.

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 coordinator prior to registration. May be repeated with consent of graduate coordinator.

ACCT 675. Professional Practice Seminar (3). Critical examination of current ethical and management issues confronting the account-

ing profession. Emphasis is on using an interdisciplinary approach to examine and address these issues. Prerequisite: Completion of 21 semester hours of graduate course work and consent of master of accountancy graduate coordinator.

ACCT 680/681. Seminar in Accounting (1-3). Study of special topics in accounting. Proposed program of study must be approved by instructor and graduate coordinator prior to registration. May be repeated with consent of graduate coordinator. ACCT 680 for grade; ACCT 681 graded S/U.

ACCT 682. Issues in Accounting (3). Contemporary topics. Topics are selected by program faculty and will change to reflect current developments in professional accounting theory and practice.

ACCT 686/687. Readings in Accounting (1-3). Independent study and research in accounting. Proposed program of study must be approved by program coordinator and instructor prior to registration. ACCT 686 for grade; ACCT 687 graded S/U.

ACCT 689. Internship (1-3). Supervised professional experience related to the practice of professional accounting. Graded S/U.

ACCT 690/691. Directed Research in Accounting (1-3). Supervised independent research in accounting. ACCT 690 for a grade; ACCT 691 graded S/U.

ACCT 697. Supervised Field Study (1-3). A supervised field study whereby problem(s) and alternative solutions will be identified and analyzed against a set of objectives. A proposed solution will be recommended and defended. May be a team project. Graded S/U.

ACCT 699. 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 towards degree. Minimum acceptable total for degree is four hours.

American Culture Studies

Master of Arts

Master of Arts in Teaching

Doctor of Philosophy

Donald McQuarie, Director/Graduate Coordinator

Room: 101 East Hall

Phone: 419-372-8886

Executive Committee

Donald McQuarie, Chair; Eithne Luibheid; William Grant; Philip Terrie; Graduate Student Representative

Policy Committee

Donald McQuarie, Graduate Faculty Representatives from participating departments and programs, two Graduate Student Representatives

The interdisciplinary **Master of Arts in American Culture Studies** is designed around the concept of culture, which unifies study of many discrete aspects of American historical, social, intellectual, and artistic heritage. Courses stress appropriate theories of culture and manifestations of culture in artistic traditions or social institutions, and explore particular themes, issues, and periods from an interdisciplinary perspective.

The M.A. curriculum offers a foundation in the study of American culture for students with a variety of interests or goals. Primarily, the program seeks to communicate a sense of the complexity and diversity of the American national culture through systematic analysis of its elements. This approach is relevant equally to students who might pursue a career in education in some aspect of American culture; engage in professions—such as journalism, public relations, advertising, government, and merchandising—where a knowledge of American culture is important; or who seek to enrich their understanding of American culture. While the American studies component of the curriculum assures a common experience in culture study, the remainder of the courses allow an individualized educational experience.

The **Doctor of Philosophy in American Culture Studies** combines the resources of American culture studies, English, history, communication, popular culture, sociology, ethnic studies, philosophy, and women's studies into an interdisciplinary program. Recognizing that American culture is complex and multifaceted, the Ph.D. program requires work in a variety of subject areas which encourage reflection on both the historic heritage and contemporary expression of the American national experience. Flexible in both methods and goals, the Ph.D. in American Culture Studies can meet the diverse needs of a variety of students who seek advanced graduate study as preparation for careers in academic fields, museums, cultural and historical organizations, or similar institutions requiring both breadth and depth of understanding of American culture.

Each candidate's individualized course of study is based upon consideration of the student's personal interests and career goals. Essential to the program is the requirement of an internship, field experience, or practicum designed to develop practical experience in a non-academic cultural setting.

Prerequisites to Graduate Work

Usually students undertaking master's-level work in American Culture Studies should possess an undergraduate degree in the humanities or social sciences, or have completed a minimum of 24 undergraduate hours in two or more disciplines within the humanities or social sciences. Students presenting other qualifications will require a positive evaluation from the Executive Committee. If an applicant is seriously deficient in undergraduate course work, additional course work may be required as a condition of admission.

Applicants to the Ph.D. program are expected to have earned an M.A. degree in an appropriate subject area and to have a superior academic record at both the undergraduate and master's degree levels. Applicants presenting other credentials will be evaluated on an individual basis and may be required to remove any deficiencies in their background by

taking specific graduate courses recommended by the Executive Committee. Applicants are encouraged to visit the campus for an interview with the director whenever possible.

Admission Procedure

Applicants seeking admission to either the M.A. or the Ph.D. program should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants should submit a departmental application for assistantship or fellowship including a statement of the student's interest in American Culture Studies and professional goals. Applicants also must submit an academic paper as evidence of scholarly aptitude and writing and research skills.

Degree Requirements

Master of Arts

Individual programs are designed in consultation with the graduate coordinator and based upon a combination of courses in American Culture Studies and related fields according to the interests, needs, and background of the student, his or her future plans and goals, and the interdisciplinary philosophy of the program.

Of the 33 semester hours of graduate credit required for the degree, a minimum of 15 must be in American culture studies course work. ACS 620, History of American Culture Studies, and ACS 630, Methods and Theories, are required within the 15 credit hours. The remaining hours are selected from appropriate courses in American culture studies, art history, communication, English, geography, history, philosophy, political science, popular culture, sociology, women's studies, and other related fields. Of these remaining hours, no more than 12 may be taken in a single department or program.

Students may pursue the M.A. degree under one of two plans

Plan I: Candidates must write an interdisciplinary thesis in keeping with the philosophy of the program. Under Plan I, students complete 30 hours of course work and receive three hours of credit for the accepted thesis for a total of 33 semester hours.

Plan II: Candidates complete 33 hours of course work and take a comprehensive examination. Toward the end of a student's residence and after the completion of at least two semesters, the student electing Plan II will sit for a four-hour written examination, covering American cultural history, American culture studies methodology, and important themes in American culture. The examination will be based upon each student's individual course of study.

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Doctor of Philosophy

General Requirements: There are two general requirements for the doctoral program in American culture studies: (1) the completion of at least 70 semester hours of graduate credit beyond the master's degree (including a maximum of 16 hours for dissertation research); and (2) at least two consecutive semesters beyond the master's degree in full-time residence at the University.

Each candidate's program is planned individually in consultation with the director of the program. All candidates are required to complete a primary and secondary area of concentration. The primary concentration consists of 18 semester hours of doctoral-level courses in either English, ethnic studies, history, philosophy, communication studies, popular culture, or sociology. The secondary area consists of nine semester hours in one of the above disciplines other than the area of concentration. American culture studies or women's studies are also acceptable as secondary areas of concentration.

Public Lecture: Before completing formal course work, each student is required to prepare and present a scholarly paper at a professional meeting within his or her area of concentration or professional interest or at an appropriate interdisciplinary professional conference. A topic of broad general interest and the use of more than one medium (e.g., audio or video tape, slides, and film) in the presentation is encouraged.

Examinations: Successful

completion of two examinations—a qualifying examination in American culture studies and a general preliminary examination in an area of concentration—is required for formal advancement to candidacy.

The five-hour qualifying examination in American culture studies is offered annually and designed and evaluated by the Executive Committee. It covers culture theory and core course work in American culture studies in order to test students on relevant theories of culture and the ability to apply those theories.

The preliminary examination is an interdisciplinary examination based upon the primary Ph.D. concentration (communication studies, English, ethnic studies, history, philosophy, popular culture, or sociology) and the courses taken for the secondary concentration. This examination consists of two parts: (1) either a timed examination of six hours or a take-home examination written over a weekend and (2) a two-hour oral examination. The oral examination must be completed within two weeks after notification of successful completion of the written examination.

Field Experience: Each student graduating with the Ph.D. in American Culture Studies will be required to complete a three-hour field experience appropriate to his or her interest. This requirement may be met by one of the following options. (1) ACS 797, Practicum in American Culture (three hours). A group field experience emphasizing hands-on experience with the materials and methods of recording, preserving, and/or disseminating artifacts of American culture. Field projects in historical preservation, museums, archives, and similar organizations are typical of this course; (2) ACS 789, Internship in American Culture Studies (one to six hours). An internship at an appropriate institution or organization concerned with the production, collection, recording, preservation, presentation, study, or dissemination of American culture. May be taken for up to six hours, but only three hours count toward graduation; or (3) ACS 755, Field Work in American Culture (three hours). Field work in American culture undertaken under the super-

vision of a qualified faculty member. May consist of such projects as participant-observer or other anthropological-type research, an independent cultural inventory or survey, or participation in such activities as an archaeological dig or group cultural survey under appropriate supervision.

Dissertation: The dissertation should be consistent with the candidate's planned profession. Dissertation proposals and committees are subject to the approval of the Executive Committee. Doctoral committees must consist of a minimum of one faculty member from the American culture studies affiliated faculty, two faculty members from cooperating schools/departments, and a representative of the Graduate College. Other appropriate faculty may be included with the approval of the Executive Committee. All appointments to these committees are subject to approval by the Executive Committee and the Graduate College.

Courses for Graduates

ACS 580. The Literature of American Studies (3) Spring. Study of the dominant paradigms of American culture studies as reflected in key works of American studies scholarship. Emphasis on the development of the discipline, its characteristic methodologies and its relationship to traditional humanities and social sciences disciplines.

ACS 586/587. Workshop in American Culture Studies (1-3) Fall, Spring, Summer. On demand. Workshops designed for current topics and issues of an interdisciplinary nature. Topics vary from semester to semester. ACS 586 for a grade; ACS 587 graded S/U.

ACS 620. History of American Studies (3) Fall. Earliest efforts to define an "American character"; institutionalization of American studies; relationship of American studies to Cold War; rise and fall of myth symbol school; challenges to white-male hegemony from women and minority scholars.

ACS 630. Methods and Theories (3) Fall. Historical perspectives on American culture studies; theories and concepts of culture relative to American culture studies; new trends

American Culture Studies

and directions in scholarship.

ACS 673. Seminar in American Culture Studies (3) On demand. Interdisciplinary seminar in American Culture from an Ethnic Studies perspective. ACS 673 is also listed in this catalog as ETHN 673. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 674. Seminar in American Culture Studies (3) On demand. Interdisciplinary seminar in American culture from an art history perspective. ACS 674 is also listed in this catalog as ARTH 603. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 675. Seminar in American Culture Studies (3) On demand. Interdisciplinary seminar in American culture studies from literature and language perspective. ACS 675 is also listed in this catalog as ENG 675. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 676. Seminar in American Culture Studies (4) On demand. Interdisciplinary seminar in American culture studies from a history perspective. ACS 676 is also listed in this catalog as HIST 676. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 677. Seminar in American Culture Studies (3) On demand. Interdisciplinary seminar in American culture studies from a political science perspective. ACS 677 is also listed in this catalog as POLS 677. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 678. Seminar in American Culture Studies (3) On demand. Interdisciplinary seminar in American culture studies from a sociology perspective. ACS 678 is also listed in this catalog as SOC 678. During a given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 679. Seminar in American Culture Studies (4) On demand. Interdisciplinary seminar in American culture studies from philosophy perspective. ACS 679 is also listed in this catalog as PHIL 679. During a

given semester, a student may receive credit for only one of these courses. May be repeated.

ACS 682. Topics in American Culture Studies (3) Fall, Spring. Study of selected topics or subject areas which are particularly suited to an interdisciplinary approach and treatment. May be repeated.

ACS 685. Readings in American Culture Studies (1-6). Individual study of some phase of American culture not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval by Executive Committee. May be repeated. Graded S/U.

ACS 687. Independent Study in American Culture Studies (1-6). Supervised independent completion of a project other than readings. Graded S/U.

ACS 689. Internship (1-6). Fall, Spring, Summer, On demand. Supervised experience within setting or institution related to an area of American culture studies. Must be approved by graduate coordinator prior to registration. Students may enroll up to six credit hours; however, only three hours are counted toward the degree. Graded S/U.

ACS 691. Directed Research in American Culture Studies (1-6). Supervised independent completion of a project other than readings in an area of American culture. Graded S/U.

ACS 698. Readings for Comprehensive Examination (1-12). Fall, Spring. Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

ACS 699. Thesis Research (1-12). Credit for thesis study. Students may enroll in up to 12 credit hours; however, only three hours are counted toward the M.A. degree. Graded S/U.

ACS 720. History of American Studies (3) Fall. Earliest efforts to define an "American character"; institutionalization of American studies; relationship of American studies to Cold War; rise and fall of myth symbol school; challenges to white-male hegemony from women and minority scholars.

ACS 730. Seminar in Theories of American Culture Studies (3)

Fall. Examination of theories of culture as applicable to study of American culture. Review of American culture scholarship.

ACS 735. Interdisciplinary Seminar (1) Fall, Spring. Professional seminar synthesizing American culture studies goals, topics, and techniques. May be repeated up to three credit hours. Graded S/U.

ACS 755. Field Work in American Culture (3) Fall, Spring. Independent project under faculty supervision. May consist of participant observer or similar anthropological research, cultural resources inventory or survey, archaeological project, or similar supervised field work. Graded S/U.

ACS 780. Seminar in American Culture Studies (3) Fall, Spring. An examination of a topic in American culture studies which is particularly appropriate for an interdisciplinary approach and treatment. May be repeated.

ACS 782. Topics in American Culture Studies (3). Examination of selected topics or subject areas which are especially appropriate for an interdisciplinary approach and treatment. May be repeated.

ACS 785. Directed Readings in American Culture Studies (1-6) On demand. Individual or group study of some phase of American culture not ordinarily offered in curriculum. Prerequisite: consent of instructor and consent of Executive Committee. Graded S/U.

ACS 787. Independent Study in American Culture Studies (1-6). Supervised completion of a project other than readings. Graded S/U.

ACS 789. Internship in American Culture Studies (1-6) Fall, Spring. An internship at an appropriate institution or organization concerned with production, collection, recording, preservation, presentation, study, or dissemination of American culture. Proposed field placement registration must be approved by Director prior to registration. May be taken for up to six hours, but only three hours count toward graduation. Graded S/U.

ACS 791. Directed Research in American Culture Studies (1-6) On demand. Individual problems in advanced research not involved in

dissertation and ordinarily not offered in curriculum. Prerequisite: consent of instructor and approval of Executive Committee. Graded S/U.

ACS 797. Practicum in American Culture (3) Spring. Group field work emphasizing hands-on experi-

ence with the materials and methods of recording, preserving, and/or disseminating artifacts of American culture. Graded S/U.

ACS 798. Readings for Core/Preliminary Examination (1-12). Supervised independent readings in

preparation for the doctoral preliminary examination. Graded S/U.

ACS 799. Dissertation Research (1-16). Students must register for minimum of 16 hours in this course while working on doctoral dissertation.

Applied Statistics and Operations Research Master of Science

B. Madhu Rao, Chair
Danny Myers, Graduate Coordinator - Operations Research
Nancy Boudreau, Graduate Coordinator - Applied Statistics (recruiting)
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Room: 344 Business Administration Building
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Statistical Program Committee

James Albert, Nancy Boudreau, Hanfeng Chen, Grace Montepiedra, Truc Nguyen, Arthur Yeh

Graduate Faculty

Professors - Danny C. Myers, Ph.D.; B. Madhu Rao, Ph.D.; James Sullivan, Ph.D.

Associate Professors - Nancy Boudreau, Ph.D.; Grace Montepiedra, Ph.D.; Arthur Yeh, Ph.D.

The **Master of Science in Applied Statistics** is offered jointly by the **Department of Mathematics and Statistics** and the **Department of Applied Statistics and Operations Research**. The intent of the program is to prepare students for direct entry into a career as statisticians in business, industry, or government, or for further study toward a Ph.D. degree in statistics.

For detailed descriptions of operations research specializations, see the Master of Science section in Computer Science and the Master of Business Administration programs. **Prerequisites to Graduate Work in Applied Statistics**

This program is intended for students with a background in mathematics or statistics. Students without this background should

expect to take longer to complete the degree requirements.

Applicants must have satisfactorily completed courses in differential and integral calculus, including multivariable calculus; a course in advanced calculus; and a course in linear algebra. At the University, these requirements are equivalent to the completion of MATH 233, MATH 432, and MATH 434. These prerequisites may be waived for admission to the program but must be fulfilled early in the program.

Although no background in statistics is required for admission into the program, it is beneficial for applicants to have completed an introductory two-course sequence in probability and statistics.

Admission Procedure

Applicants seeking admission to the M.S. program should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements Master of Science in Applied Statistics

Students may pursue the M.S. degree under either Plan I or Plan II. Requirements under either plan are: MATH 641 and 642, STAT 502, 506, 508, and 675; at least one course from MATH 650, STAT 650, STAT 675; at least six hours of graduate course work in an approved cognate area; and three elective courses in statistics (at least two at the 600 level). Of these elective courses, at least three hours must be from the Department of Mathematics and Statistics and at least three must be from the Department of Applied Statistics and Operations Research. The remaining three hours should be from the offerings of either the Department of Applied Statistics and Operations Research or the Department of Mathematics and Statistics. Any of these courses may be waived at the graduate level for students who can document equivalent under-

graduate or graduate training; however, the credit hour requirement will not be reduced in this case. The student will be expected to substitute appropriate electives. Cognate courses are selected by the student, subject to the approval of the graduate coordinator, to conform to the individual needs of the student. Cognate courses may not include courses whose primary content is statistics.

Plan I: Candidates must complete a minimum of 33 semester hours of graduate course work and three hours of thesis credit. Students under Plan I need not take STAT 675. Candidates must pass a written and/or oral examination over the thesis and MATH 641 and 642, and STAT 502, 506, and 508.

Plan II: Candidates must complete a minimum of 33 hours of graduate course work. Students must pass a written and/or oral comprehensive examination over MATH 641 and 642, and STAT 502, 506, and 508.

Courses for Graduates

STAT 502. Regression Analysis (3) Fall. Linear, nonlinear, and multiple regression and correlation analysis. Prerequisite: STAT 315 or MATH 541 or consent of instructor.

STAT 506. Sample Design (3) Spring. 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 541 or consent of instructor.

STAT 508. Experimental Design (3) Spring. Constructing statistical designs and analyzing resulting data; basic experimental design and analysis of variance. Prerequisite: STAT 315 or MATH 541 or consent of instructor.

STAT 512. Applied Nonparametric Statistics (3) Spring. Nonpara-

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metric approach to testing hypotheses: contingency tables, goodness of fit, procedures based on ranks. Prerequisites: STAT 315 or MATH 541 or consent of instructor.

STAT 514. Statistical Quality Control (3) Fall. Statistical process control; Shewhart control charts (variables and attributes); acceptance sampling (single, double, and sequential); Dodge-Romig Tables. Prerequisite: STAT 212 or MATH 541 or consent of instructor.

STAT 516. Time Series Analysis (3) Spring. 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 541 or consent of instructor.

STAT 600. Regression and Design (3). Regression analysis, analysis of variance, and topics in the design of experiments. Credit not applicable toward the M.S. in Applied Statistics. Prerequisites: STAT 200 or equivalent.

STAT 601. Statistics for Managerial Decisions (3). Fundamental statistical concepts and important statistical techniques will be introduced. Topics to be covered include exploratory data analysis, confidence interval estimation, hypothesis testing, regression analysis, forecasting, analysis of variance, and contingency tables. Credit not applicable toward the M.S. in Applied Statistics.

STAT 620. Experimental Design (3) Summer. Split-plot and repeated measures designs; unbalanced ANOVA; analysis of covariance. Prerequisite: STAT 508 or consent of instructor.

STAT 630. Applied Multivariate Analysis (3) Fall. Multivariate normal distribution; multivariate procedures for estimation and inference. Prerequisite: STAT 508 and MATH 542, or consent of instructor.

STAT 632. Linear Models (3). Distribution of quadratic forms; estimation and statistical inference for regression and analysis of variance models. Prerequisites: STAT 502 and MATH 542, or consent of instructor.

STAT 634. Applied Discrete Data Analysis (3) Spring (alternate years). Contingency tables, indices of

association, log-linear models, and logistic regression. Prerequisites: MATH 541 and STAT 502, or consent of instructor.

STAT 675. Research Methods in Statistics (3). Training in research methodology in statistics through lectures, seminars, consulting, and individual projects. Prerequisite: consent of graduate coordinator.

STAT 680/681. Seminar in Statistics (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. STAT 680 for a grade; STAT 681 graded S/U.

STAT 686/687. Independent Study in Statistics (1-3). Individual study of a problem area or special topic in statistics. Prerequisite: consent of graduate coordinator. STAT 686 for a grade; STAT 687 graded S/U.

STAT 689. Internship in Statistics (1-5). Supervised professional experience within occupational setting related to student's area of academic specialization. Graded S/U.

STAT 690/691. Directed Research in Statistics (3). Supervised independent research. STAT 690 for a grade; STAT 691 graded S/U.

STAT 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Credit not applicable toward M.S. in Applied Statistics. Graded S/U.

STAT 699. Thesis Research (1-12). Credit for thesis study. Minimum acceptable total for degree (Plan I) is three hours. Prerequisite: consent of graduate coordinator. Graded S/U.

Operations Research Concentration

Operations research concentrations are available in the Master of Science in computer science and the MBA programs. See Computer Science and Graduate Business Administration, respectively, for information or requirements and prerequisites. The operations research courses listed below are offered by the Department of Applied Statistics and Operations Research.

OR 570. Linear and Integer Programming (3) Fall. Modeling industrial and public administration

problems via linear, goal and integer programming; L.P. solution techniques; sensitivity analysis, dual, parametric programming; cutting-plane and branch and bound method; current topics in integer programming. Prerequisite: GBA 560 or equivalent or consent of instructor.

OR 572. Computer Simulation of Management Systems (3). Techniques for modeling manufacturing, inventory, queuing, scheduling, communication and transportation systems under uncertainty; implementing these models using computer simulation languages (e.g., GPSS). Prerequisites: STAT 212 or equivalent and one computer programming course.

OR 575. Probability Models for Decision Making (3). Techniques of modeling business decision problems involving random phenomena. Topics include elementary probability models, Markov chains and waiting line models along with their applications in various functional areas of business. Prerequisite: OR 380 or CS 540 or equivalent.

OR 647. Network Analysis (3) Spring. Network techniques for modeling and analysis of industrial and management problems: project management and resource allocation with PERT/CPM; transportation, trans-shipment, assignment, shortest path and minimal spanning tree models; maximal flow problems in single and multi-commodity networks; out-of-kilter algorithm; advanced topics in network analysis. Prerequisite: OR 480 or GBA 661 or CS 540.

OR 649. Applied Nonlinear and Dynamic Programming (3) Fall. Modeling decision problems in business and public administration via nonlinear and dynamic programming. Topics include quadratic and separable programming, penalty function, search methods, geometric programming, dynamic programming with discrete and continuous variables. Prerequisite: OR 480 or GBA 661 or CS 540.

OR 651. Mathematical Programming and Applications (3). Special topics in linear and nonlinear programming and their applications in business, industry, and the public sector: upper bounding technique,

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special algorithms in integer and zero-one programming, goal programming, reduced gradient method, convex simplex method, and linear fractional programming. Prerequisites: MATH 332 and one from OR 380, CS 440, GBA 560.

OR 655. Stochastic Models and Applications (3). Topics to be selected from introductory, intermediate, and advanced queuing models and their applications to inventory, production, and computer systems; stochastic models for reliability studies and their analysis and

applications; modeling and analysis of probabilistic inventory systems. Prerequisites: MATH 541 or STAT 315.

OR 669. Cases in Management Science (3). Applications of management science techniques to problems in finance, management, marketing, and other areas of business will be examined by the use of case studies. Students will experience the process of problem discovery, specification, and analysis through individual and team projects. Prerequisite: GBA 560 or CS 440 or equivalent.

OR 686/687. Independent Study in Operations Research (1-3). Individual or group study of problem area in operations research. Prerequisite: consent of graduate coordinator. OR 686 for a grade; OR 687 graded S/U.

OR 691. Directed Research in Operations Research (1-3). Systematic study of selected topics in operations research. Does not count toward graduation requirements. Graded S/U.

Art

Master of Arts

Master of Fine Arts

Louis Krueger, Director, School of Art
Charles Kanwischer, Graduate
Coordinator

Room: 116 Fine Arts Center
Phone: 419-372-2640
Fax: 419-372-2544

Graduate Faculty

Professors - Robert Hurlstone, M.F.A.; Louis Krueger, M.F.A.; Thomas Muir, M.F.A.; Dennis Wojtkiewicz, M.F.A.

Associate Professors - Janet Ballweg, M.F.A.; Dawn Glanz, Ph.D.; Kathleen Hagan, M.F.A.; Karen Kakas, Ph.D.; John Lavezzi, Ph.D.; Mark Marcin, M.F.A.; Shawn Morin, M.F.A.; Rosalie Politsky, Ph.D.; Lynn Whitney, M.F.A.; Mark Zust, M.F.A.

Assistant Professors - Michael Arrigo, M.F.A.; John Balistreri, M.F.A.; Dena Eber, Ph.D.; Rebecca Green, Ph.D.; Mille Guldbeck, M.F.A.; Michelle Illuminato, M.F.A.; Charles Kanwischer, M.F.A.; Bonnie Mitchell, M.F.A.

Graduate Programs and Standards Committee

Three members of the graduate faculty and the graduate coordinator (a rotating faculty committee).

The **School of Art** offers programs leading to the degrees of **Master of Arts** and **Master of Fine Arts**. Candidates in the M.A. program may pursue a course of study in 2-D

studio art (drawing, painting, photography, printmaking), 3-D studio art (ceramics, fibers/fabrics, glassworking, jewelry/metals, sculpture), computer art (animation, 2-D imaging, interactive media), and art history.

The primary objective of the M.A. and M.F.A. programs is the effective and professional training of students. Graduate study in art provides innovative instruction that leads to conceptual insights and technical aptitudes, which are essential to the understanding and practice of professional art. The development of technical skills and individual expression is emphasized.

Prerequisites to Graduate Work

Admission to the M.A.-studio art and the M.F.A. programs requires the equivalent of a Bachelor of Fine Arts degree or 60 hours in art and 12 hours in art history. Prerequisites may be altered at the discretion of the School of Art.

For admission to the M.A.-art history program, an undergraduate background in fine arts, art history, or humanities is highly recommended. Deficiencies in art history may have to be made up prior to formal acceptance into the M.A. program.

Admission Procedure

Applicants seeking admission to the M.A. and M.F.A. programs should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Applicants to the M.A.-studio art program and the M.F.A. program are required to submit a portfolio consisting of a cover letter, resume, three

letters of recommendation, 15 to 20 slides of work from the proposed area of specialization, and a stamped self-addressed envelope by March 1 for fall semester enrollment and October 1 for spring semester enrollment. Applicants should keep in mind that there is no summer review of portfolios.

Applicants to the M.A.-art history program are required to submit an application consisting of a cover letter, resume, three letters of recommendation, and a sample paper from a recent art history course.

Degree Requirements

The M.A. in studio art and the M.F.A. are two separate degree programs. M.F.A. candidates are not required to earn an M.A. en route to an M.F.A. If students elect to pursue both degrees, they must fulfill all requirements for both.

Students majoring in a studio area, in both the M.A. and M.F.A. programs, work with the graduate coordinator to choose the student's major professor. The major professor will work with the graduate coordinator to oversee the student's matriculation process and will serve as the chair of the student's Graduate Review Committee.

The Graduate Review Committee is composed of five graduate faculty members, including the major professor, from the School of Art and the College of Arts and Sciences. All studio majors are subject to periodic reviews by the Review Committee.

Master of Arts

Studio Art: Candidates must complete a minimum of 33 semester hours of graduate credit, distributed

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as follows: six hours studio critique; 12 hours studio specialization; six hours studio electives; three hours pedagogy; three hours art history seminar; and three hours written thesis credit. The written thesis in the studio program can be the result of research in art theory, art criticism, art history, or studio experimentation. The student must submit a photographic record of his/her studio work prior to graduation.

Awarding of the degree is contingent upon recommendation for graduation by the Graduate Review Board of the School of Art after a final review of work submitted by the candidate.

Computer Art: Candidates must complete a minimum of 33 semester hours of graduate credit, distributed as follows: six hours studio critique; 12 hours studio specialization; six hours studio electives; three hours pedagogy; three hours art history seminar; and three hours written thesis credit. The written thesis in the studio program can be the result of research in art theory, art criticism, art history, or studio experimentation. The student must submit a photographic record of his/her studio work prior to graduation.

Awarding of the degree is contingent upon recommendation for graduation by the Graduate Review Board of the School of Art after a final review of work submitted by the candidate.

Art History: Candidates must complete a minimum of 31 semester hours of graduate credit distributed as follows: 24 semester hours of art history, of which six must be in graduate seminars in two different areas or periods of art history and at least 12 of which must be in regular lecture courses; three hours of studio or related courses or related courses outside the School of Art; one hour of research techniques; and three hours of written thesis credit. In addition, as a prerequisite to admission to M.A. degree candidacy and thesis work, students must satisfactorily complete a comprehensive examination in art history after successful completion of 18 semester hours of art history courses.

Candidates in art history are also required to demonstrate a reading

proficiency in one of the approved languages of scholarship other than English. The appropriate language will be determined in consultation with the student's advisor (who will be one of the full-time faculty in art history). Proficiency is usually certified by a B-level examination or equivalent, as described under Option A in the "Language Requirements" section of this catalog.

Master of Fine Arts

Students entering the M.F.A. degree program have probationary status during the first 15 semester hours of work. In the semester immediately following the completion of this 15-hour requirement (summer excepted), the student must pass the initial review for permission to continue in the program.

Candidates must complete a total of 60 semester hours of graduate credit, distributed as follows: 12 hours studio critique; 21 hours studio within specialization; 12 hours studio elective; six hours art history seminar; three hours academic elective; three hours pedagogy; and three hours exhibition research.

Awarding of the degree is contingent upon recommendation for graduation by the Graduate Review Board after a final review of work submitted by each candidate.

Total hour requirements may be reduced for students who can apply credit from previous graduate work. Students are required to complete a minimum of two full-time semesters in residence.

The M.F.A. exhibition required of each student is the culmination of the candidate's work in his or her studio discipline. The exhibition is a major show including an in-lieu-of-thesis statement and photographic documentation of the work, which must be accompanied by a proper brochure. M.F.A. exhibitions are usually held spring semester in the Dorothy Uber Bryan Gallery in the Fine Arts Center though exceptions can be made. The M.F.A. exhibition in its totality must be approved by the Graduate Review Committee.

Students wishing to enroll in courses outside of their area of specialization must display a proficiency in the chosen area. The instructor may require remedial

undergraduate study before approval to take the graduate course is given.

Art/Computer Art Courses for Graduates

ARTC 640. Computer Art Studio Critique (3). On demand. Directed projects with group discussions and critiques in animation, 2-D imaging, and interactive multi-media. May be repeated to nine hours with consent of instructor. Graded S/U.

ARTC 641. Advanced Computer Art (3-12). Advanced studio research and individual development using the computer as a fine art medium. May be repeated to 21 hours.

Art/History Courses for Graduates

ARTH 540. Modern Architecture (3). Architecture of the 19th and 20th centuries in Europe and America.

ARTH 541. American Art to the Civil War (3). 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.

ARTH 542. American Art Since the Civil War (3). Painting, sculpture, architecture, and photography of the United States from 1860 to the present. Special attention given to artists and developments prior to World War II frequently overlooked in surveys of modern art.

ARTH 545. Preclassical Art (3). Art and archaeology of preclassical Aegean world to the end of the Bronze Age; the Minoan and Mycenaean civilizations.

ARTH 546. Greek Art (3). Art of Greece from the Dark Ages through the Hellenistic period: emphasis on vase painting, sculpture and architecture.

ARTH 549. Medieval Art (3). Art and architecture from the Medievalization of the Roman Empire through the High Gothic period.

ARTH 551. Art of the Italian Renaissance (3). Painting, sculpture, and architecture of Italy during the Renaissance, from the late 13th century through the 16th century and Mannerism.

ARTH 553. Northern Renaissance Art (3). Painting, sculpture, and graphic arts of Flanders, France,

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Germany, England, and Spain during the 15th and 16th centuries.

ARTH 554. Baroque and Rococo Art (3). The painting, sculpture, and architecture of Italy, Spain, France, and the Low Countries in the 17th and 18th centuries.

ARTH 555. Art of the 19th Century (3). Painting and sculpture in the 19th century in Europe, from neoclassicism through post-impressionism.

ARTH 556. Art of the Early 20th Century (3). Major movements in painting and sculpture in Europe and America from Fauvism to World War II; theoretical basis as well as formal innovations.

ARTH 557. Art of the Later 20th Century (3). Major movements in painting and sculpture in Europe and America from World War II to the present; traditional art forms as well as more radical recent developments.

ARTH 558. Art of India and S.E. Asia (3) Offered on a limited basis. Art and architecture in India and S.E. Asia from the earliest times to the present.

ARTH 559. Art of China & Japan (3) Offered on a limited basis. Art and architecture of China and Japan from the earliest cultures to the present.

ARTH 560. Women and the Visual Arts (3) Alternate years. Historical survey of the role of women in the fine arts, in their capacities as artists, critics, matrons (patrons), and audiences, from antiquity to the present. Emphasis on examining issues relevant to the contemporary situation in the arts and society.

ARTH 582. Special Topics in Art History (1-3) Offered on a limited basis. Innovative and intensive group studies in selected art historical research. Prerequisites announced for each offering. May be repeated.

ARTH 600. Seminar in Recent Art (3). Topics in 19th and 20th century art; schools, movements, trends, artists, or concepts.

ARTH 601. American Art Seminar (3) Spring. Intensive study of period or problem in American art. Prerequisite: ARTH 541 or 542.

ARTH 602. Seminar in Art History (3) Spring. Reports and discussion in areas of art theory, art history, and art criticism. May be

repeated to nine hours.

ARTH 603. Seminar in American Culture Studies (3). 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. ARTH 603 is also listed in this catalog as ACS 674. During a given semester, a student may receive credit for only one of these courses.

ARTH 604. Seminar in Ancient Art (3). Selected topics normally in Aegean or Greek art; occasionally, Near Eastern or Roman art.

ARTH 682. Art History Problems (1-3) Fall, Spring. Individual research problems in any part of art history. May be repeated to 6 hours. By permission only.

Art/Studio Courses for Graduates

ARTS 511. Drawing (3-12) Fall, Spring. Advanced problems in drawing and composition. May be repeated to 21 hours.

ARTS 521. Painting (3-12) Fall, Spring. Exploration of techniques, formal and expressive possibilities of selected painting medium. May be repeated to 21 hours.

ARTS 531. Printmaking (3-12) Fall, Spring. Aesthetic potentials of graphic techniques. May be repeated to 21 hours.

ARTS 541. Fine Art Photography (3-12) Fall, Spring. Assignments in fine art photography; development and growth of individual creative expression. May be repeated to 21 hours.

ARTS 551. Fibers/Fabrics (3-12) Fall, Spring. Study of fiber/fabric techniques for their potentials in conceptual and functional forms. May be repeated to 21 hours.

ARTS 561. Glassworking (3-12) Fall, Spring. Advanced-level studies of artistic glass production techniques. Aesthetic and technical research. Studio glass equipment construction. May be repeated to 21 hours.

ARTS 571. Ceramics (3-12) Fall, Spring. Ceramic production. Correlation of technical research and personal concepts. May be repeated to 21 hours. Prerequisite: Six hours in ceramics, including glaze calculation.

Sculpture experience is strongly recommended.

ARTS 581. Jewelry Design, Enameling, and Metalsmithing (3-12) Fall, Spring. Use of metals in jewelry making; design and development of skill in manipulation of tools and materials. May be repeated to 21 hours.

ARTS 591. Sculpture (3-12) Fall, Spring. Development of abstract forms, figure modeling, and advanced sculptural media. May be repeated to 21 hours.

ARTS 612. Advanced Study in Drawing (3-12) Fall, Spring. Advanced studio research and development within the drawing specialization. Six studio hours. May be repeated to 21 hours. Prerequisite: ARTS 511.

ARTS 622. Advanced Study in Painting (3-12) Fall, Spring. Advanced studio research and development within the painting specialization. May be repeated to 21 hours. Prerequisite: ARTS 521.

ARTS 632. Advanced Study in Printmaking (3-12) Fall, Spring. Advanced studio research and development within the printmaking specialization. May be repeated to 21 hours. Prerequisite: ARTS 531.

ARTS 642. Advanced Study in Fine Art Photography (3-12) Fall, Spring. Advanced studio research and development within the fine art photography specialization. May be repeated to 21 hours. Prerequisite: ARTS 541.

ARTS 652. Advanced Study in Fibers/Fabrics (3-12) Fall, Spring. Advanced studio research and development within the fibers/fabrics specialization. May be repeated to 21 hours. Prerequisite: ARTS 551.

ARTS 662. Advanced Study in Glassworking (3-12) Fall, Spring. Advanced studio research and development within the glassworking specialization. May be repeated to 21 hours. Prerequisite: ARTS 561.

ARTS 672. Advanced Study in Ceramics (3-12) Fall, Spring. Advanced studio research and development within the ceramics specialization. May be repeated to 21 hours. Prerequisite: ARTS 571.

ARTS 682. Advanced Study in Jewelry, Enameling, and Metalsmithing (3-12) Fall, Spring.

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Advanced studio research and development within the jewelry, enameling, and metalsmithing specialization. May be repeated to 21 hours. Prerequisite: ARTS 581.

ARTS 692. Advanced Study in Sculpture (3-12) Fall, Spring. Advanced studio research and development within the sculpture specialization. May be repeated to 21 hours. Prerequisite: ARTS 591.

Additional Art Courses for Graduates

ART 586. Workshop in Art (1-4). Study of a particular topic in an intensive format. Topics vary.

ARTE 596. Student Teaching Practicum (3) Fall, Spring. Clinical teaching experience in Division of Art Education/Art Therapy Children's Program. Prerequisite: consent of program director.

ARTD 611. Design (3-12) Fall, Spring. Exploration and professional development in graphic art and computer design. May be repeated to

21 hours.

ARTD 612. Advanced Study in Design (3-12) Fall, Spring. Advanced studio research and development within the design specialization. May be repeated to 21 hours. Prerequisite: ARTD 611.

ART 686. Independent Study in Studio Problems (1-3) Fall, Spring. Supervised individual problems in selected studio areas. Six studio hours. May be repeated to nine hours. Permission of instructor and graduate coordinator.

ART 692. Research Techniques (1) Fall. Supervised study in art and the applied study of materials and methods of research; emphasis on those appropriate to fields of art, art education, and art history. MA candidates only. Consent of instructor and graduate coordinator.

ART 693. Pedagogy and Research in Studio Art (3) Fall. Discussion of pedagogical philosophies, problems, and techniques associated with teaching foundation and studio

art courses. Includes the applied study of materials and methods for directed research. M.F.A. candidates only. Graded S/U.

ART 694. Workshop on Current Topics in Art (1-4) On demand. Workshop designed for current topics and issues in art, art education, and art therapy; topics vary from semester to semester.

ART 698. Exhibition Research (1-12). Supervised independent study encompassing all phases of preparation for the MFA Exhibition. Enrollment in excess of four hours acceptable for Plan II master's degree, but no more than three hours creditable toward degree. Minimum acceptable total for degree is three hours. Graded S/U.

ART 699. Thesis Research (1-12). 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. Minimum acceptable total for degree is three hours. Graded S/U.

Arts and Sciences

Occasionally, the College of Arts and Sciences sponsors a graduate seminar which focuses on new interdisciplinary syntheses of several disciplines in Arts and Sciences. Approval for such special interdisciplinary graduate seminars is granted

by the Council of Interdisciplinary Directors.

Courses for Graduates

A&S 580. Interdisciplinary Studies (3). Interdisciplinary studies in arts and sciences or area of study meeting new trends in arts and sciences. Offered on demand. May be repeated by consent of dean of

college. Prerequisite: consent of instructor.

A&S 586/587. Workshop on Current Topics in Arts and Sciences (1-4) Fall, Spring, Summer (on demand). Workshop on current topics and issues within arts and sciences. A&S 586 for a grade; A&S 587 graded S/U.

Biological Sciences

Master of Arts in Teaching

Master of Science

Specialist in Applied Biology

Doctor of Philosophy

Eloise Clark, Interim Chair
Room: 217 Life Sciences Building
Stan Smith, Graduate Coordinator
Room: 455 Life Sciences Building
Phone: 419-372-2332

Graduate Faculty

Professors – Verner Bingman, Ph.D. (Psychology); George Bullerjahn, Ph.D.; Eloise Clark, Ph.D.; Carmen Fioravanti, Ph.D.;

John Graham, Ph.D.; Carol Heckman, Ph.D.; Roudabeh Jamasbi, Ph.D. (Medical Technology); Rex Lowe, Ph.D.; Lee Meserve, Ph.D.; C. Lee Rockett, Ph.D.; Stan Smith, Ph.D.; Ron Woodruff, Ph.D.; Jong Yoon, Ph.D.

Associate Professors – Doris Beck, Ph.D.; Narasaiah Gavini, Ph.D.; Helen Michaels, Ph.D.; Jeffrey Miner, Ph.D.; Paul Moore, Ph.D.; Paul Morris, Ph.D.; Kevin Pang, Ph.D. (Psychology); Lakshmidevi Pulakat, Ph.D.

Assistant Professors – Juan Bouzat, Ph.D.; Michael Geusz, Ph.D.; Robert Huber, Ph.D.; R. Michael McKay, Ph.D.; Daniel Wiegmann, Ph.D.; Mary Wilmes-Riesenberg, Ph.D.

Lecturer - Daniel Pavuk, Ph.D.

The **Department of Biological Sciences** offers graduate training for professional careers in both applied and fundamental areas of biology. Programs are available leading to the degrees of **Master of Arts in Teaching**, **Master of Science**, **Specialist in Applied Biology**, and **Doctor of Philosophy**. Major areas of concentration include molecular biology, microbiology, cell biology, conservation biology and genetics, physiology, neuroscience and behavior, aquatic ecology, plant science, and entomology/parasitology. The Specialist in Applied Biology program offers immunohematology as an area of

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specialization. Interdisciplinary research programs in the fields of chemistry, geology, and psychology are also available.

Prerequisites to Graduate Work

Prerequisites for the M.S. program include completion of a baccalaureate degree, normally in one of the biological sciences, and completion of course work in organic chemistry and calculus. Applicants who are deficient must complete these prerequisites before the final examination.

Applicants to the Specialist in Applied Biology program must have completed or be co-enrolled in a master's degree program or its equivalent.

Applicants to the Ph.D. program who have a grade point average of at least 3.3, scored above the 60th percentile on the GRE, and present evidence of research ability may enter directly into the Ph.D. program following completion of the baccalaureate degree. A separate application to the Ph.D. program must be made by students completing a master's degree, even if the degree is from Bowling Green State University. Within three semesters of entering the Department of Biological Sciences master's program at the University, a student may apply to enter the Ph.D. program.

Admission Procedure

Applicants seeking admission to the graduate programs in biological sciences should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Applicants to the M.S. and Ph.D. programs should indicate their intended area of specialization to facilitate the application process.

Degree Requirements

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Master of Science

Students may pursue the M.S. degree under one of two plans.

Plan I: Plan I is a thesis option recommended for students who intend to continue on to a Ph.D. program as well as students who want to pursue careers involving biological research. Students must

complete at least 30 semester hours of graduate credit, including one hour of BIOL 601 and three to six hours of BIOL 699. The remainder of the student's course of study is designed, with the advice of the student's committee, to meet the student's particular needs and interests.

Candidates must complete an original research program and a thesis. Research is carried out with the help and supervision of a graduate faculty advisor designated by the student. The final oral examination covers both the contents of the thesis and general biological knowledge.

Plan II: Plan II is a non-thesis plan designed to meet the needs of students whose career goals do not require a research-oriented course of study. Candidates are required to complete 34 semester hours of graduate credit including one hour of BIOL 601 and one hour of BIOL 602. The rest of the program is designed, with the advice of the student's committee, to meet the student's needs and interests.

In lieu of a thesis, students must complete both a paper based on either original research or a literature search and a comprehensive written examination. The final oral examination covers the student's written work as well as general biological knowledge.

Specialist in Applied Biology

Degree requirements are listed under the heading of Specialist in Applied Biology in the "Degree Programs" section of this catalog.

Doctor of Philosophy

Students must complete at least 60 semester hours of graduate credit beyond the master's degree or 90 semester hours beyond the bachelor's degree. These hours must include at least 16 hours of BIOL 799, Dissertation Research (no more than 30 are applicable to the degree). The rest of the student's course of study is designed, with the advice of the student's doctoral committee, to meet the student's needs and interests.

Students must complete a preliminary written and oral examination covering general biological knowledge, usually by the end of the second year of study. Students successfully completing this examination are considered to be candidates

for the Ph.D. degree.

Candidates must complete an independent research project acceptable to their doctoral committee. This research project is to be described and evaluated in the dissertation. The final oral examination consists of a defense of the dissertation and may cover related fields of study.

Courses for Graduates

BIOL 501. Molecular Biology (3)

Fall. Function and evolutionary conservation of genes and gene products, with emphasis on the applications of molecular biology to the diverse fields in biological research. Three one-hour lectures. Prerequisites: BIOL 350 or 515 or consent of instructor.

BIOL 503. Advanced Microbiology (4) Spring. The biochemistry, genetics, and molecular biology of cellular structures and processes in selected prokaryotes. Three one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 313 or consent of instructor. Lab fee.

BIOL 504. Micro Ecology (4) Spring. Microbial processes and mechanisms involved in biogeochemical cycles and bioremediation. Three one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 313 or consent of instructor.

BIOL 505. Pathogenic Microbiology (4) Spring. 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 519 (BIOL 519 may be taken concurrently). Lab fee.

BIOL 507. Microbial Physiology (3) Spring. Chemical composition, nutrition, growth, metabolism, and regulation in microbial cells. Three hours of lecture. Prerequisites: BIOL 313 and CHEM 308 or consent of instructor.

BIOL 508. Microbial Physiology Laboratory (2) Spring. Growth nutrition, biochemical, metabolic, and regulatory activities of microorganisms. Prerequisite: Previous or concurrent enrollment in BIOL 507 or consent of instructor. Lab fee.

BIOL 509. Microbial Genetics

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(3) Fall. Molecular biology and genetic phenomena of bacteria and bacteriophage with emphasis on mutagenesis and recombination. Three hours of lecture. Prerequisites: four semesters of biology or consent of instructor. BIOL 350 or biochemistry is recommended.

BIOL 511. Plasmid Biology (3) Spring (alternate years). Mechanisms of plasmid replication, copy number control, and compatibility. Methods used to isolate and purify plasmid DNA. Procedures used to transfer plasmids to new hosts. Prerequisite: BIOL 313 or consent of instructor.

BIOL 513. Human Genetics (3) Spring (alternate years). Essential principles of modern genetics with special emphasis on humans. Methods of human genetic analysis; screening and counseling; genetic aspects of public health; genetics and cancer. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 350 or consent of instructor. Lab fee.

BIOL 515. Cell Biology (4) Fall. 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, and CHEM 306 or CHEM 342, or consent of instructor. Lab fee.

BIOL 517. Endocrinology (4) Spring. Physiological, metabolic actions of endocrine secretions with emphasis on mammals. Three one-hour lectures and one three-hour laboratory. Prerequisites: BIOL 521 and organic chemistry or consent of instructor; biochemistry recommended. Lab fee.

BIOL 518. Molecular Neurobiology (3) Spring. An overview of the cellular, molecular, and developmental aspects of nervous system and the molecular basis for the neural involvement in the functions of mind. Three one-hour lectures. Prerequisites: four semesters of biology or consent of instructor.

BIOL 519. Immunobiology (4) Spring. 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. Lab fee.

BIOL 521. Animal Physiology (4) Spring. 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 515 recommended; or consent of instructor. Lab fee.

BIOL 523. Developmental Biology (5) Fall. An overview of animal development (primarily embryogenesis) integrating classical morphological studies and current cellular and molecular findings. Three one-hour lectures and four hours of laboratory (two periods, three hours and one hour). Prerequisites: BIOL 204 and 205, or consent of instructor. Lab fee.

BIOL 531. Plant Systematics (4) Fall (odd years). Principles of plant classification, evolutionary relationships, and processes of plant evolution. Construction and use of keys, identification of local flora, use of classical and molecular techniques in plant evolutionary studies. Three one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 or consent of instructor. BIOL 343 recommended. Lab fee.

BIOL 533. Vascular Plant Structure (4) Spring. Comparative structure and evolutionary trends in the principal tissues of vascular plants. Three one-hour lectures, one two-hour laboratory. Prerequisite: BIOL 204 or 343 or consent of instructor. Lab fee.

BIOL 535. Plant Physiology (4) Spring. Molecular regulation of plant growth. Genetic engineering of plants. Use of transgenic plants as tools to understand the physiology, biochemistry, and environmental regulation of plant metabolism. Three one-hour lectures, one two-hour laboratory, and additional laboratory by arrangement. Prerequisites: ten hours biology, one year of chemistry.

BIOL 537. Paleobotany (3) Spring (alternate years). Morphology, evolution, geological distribution of fossil plants. Two one-hour lectures, one two-hour laboratory, and several field trips. Prerequisites: BIOL 533 and historical geology or consent of instructor. Lab fee.

BIOL 539. 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. Lab fee.

BIOL 540. Conservation Biology (3) Fall. Study of biological diversity and factors responsible for the global extinction crisis. Course focuses on the scientific principles of conservation, with emphasis on applications of ecological theory and population genetics to the management of threatened populations, species, and ecosystems. Prerequisites: previous course work in evolution, population genetics, and/or population/community ecology.

BIOL 541. Plant Ecology (4) Fall (even years). Physical and biological factors influencing the distribution of and abundance of plant populations and communities. Three one-hour lectures, one three-hour lab, and one weekend field trip. Prerequisites: BIOL 204 and 205. Recommended: BIOL 343, 354, or 545. Lab fee.

BIOL 543. Animal Behavior (4) Fall. Mechanisms and evolution of animal behavior, including its neural, hormonal, and genetic substrates. Three one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 205 and either BIOL 204 and or PSYC 201, or consent of instructor. Lab fee.

BIOL 545. Evolution (3) Spring. Historical evidence for evolution. Modern evolutionary theory: modes of selection, speciation, complex adaptations, micro-evolutionary trends. Two one-hour lectures and one two-hour discussion. Prerequisite: BIOL 350.

BIOL 549. Epidemiology (3) Spring. Distribution and determinants of health and disease in humans. Methods of studying those factors that influence change in the determinants of disease. Three one-hour lectures. Prerequisites: statistics course or consent of instructor.

BIOL 551. Algology (4) Fall (odd years). Taxonomy, ecology, and morphology of the algae; emphasis on freshwater algae. One three-hour lecture and one three-hour laboratory. Prerequisites: BIOL 204 and

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205. Lab fee.

BIOL 553. Limnology (3) Fall. Physical, chemical, and biological aspects of aquatic habitats. One two-hour lecture and one three-hour laboratory. Prerequisites: BIOL 204 and 205. Lab fee.

BIOL 555. Invertebrate Zoology (4) Fall. Classification, biology, and physiology of invertebrates. Three one-hour lectures and one two-hour laboratory. Prerequisites: one course in biology or consent of instructor. Lab fee.

BIOL 557. Entomology (4) Fall. 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. Lab fee.

BIOL 559. Ichthyology (3) Fall (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. Lab fee.

BIOL 560. Advanced Topics in Biology at Stone Lab (1-5) Summer. Selected topics in biology offered at Stone Lab (OSU) during summer. May be repeated with different topics.

BIOL 561. Mammalogy (3) Fall (alternate years). Identification, natural history, evolution, zoogeography, ecology, physiology, behavior, with emphasis on Ohio mammals. Two one-hour lectures and one three-hour laboratory. One weekend field trip and additional field work required. Prerequisites: BIOL 204 and 205, or equivalent. Lab fee.

BIOL 563. Herpetology (4) Fall (alternate years). Amphibian and reptile identification, habitats, distribution, behavior. Two one-hour lectures and one three-hour laboratory or equivalent field work, all day and/or weekend field trip, all-day field trip. Prerequisites: BIOL 204 and 205. Lab fee.

BIOL 565. Ornithology (3) Spring. 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. Lab fee.

BIOL 567. General Parasitology (4) Fall, Spring. 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. Lab fee.

BIOL 569. Arthropod Vectors and Parasites (3) Spring. Biology and identification of disease-carrying, toxic, and parasitic arthropods. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 204 and 205. Lab fee.

BIOL 572. Marine Biology (3) Spring. Physical, chemical, and biological processes of the marine environment, marine ecology, and community structures. One three-hour lecture. Prerequisites: BIOL 204 and 205, BIOL 354 recommended.

BIOL 573. Parasites of Marine Animals (6) Summer. Study of parasites of marine animals. Prerequisite: 16 hours of biology including parasitology. Taught at Gulf Coast Research Laboratory.

BIOL 574. 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 575. 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 577. 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: 16 hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

BIOL 578. Marine Vertebrate Zoology and Ichthyology (6) Summer. Marine Chordata, including lower groups and mammals and birds

with emphasis on fishes. Prerequisites: 16 hours of biology and junior standing. Taught at Gulf Coast Research Laboratory.

BIOL 579. 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 580/581. Seminar in Biological Sciences (1-3). Review of literature to acquaint student with research techniques and important work in various fields of biology. May be repeated. BIOL 580 for a grade; BIOL 581 graded S/U.

BIOL 582/583. Problems in Biological Sciences (1-4). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration. May be repeated. BIOL 582 for a grade; BIOL 583 graded S/U.

BIOL 586/587. Workshop in Biological Sciences (1-6). Workshops designed for current topics and issues in discipline. BIOL 586 for a grade; BIOL 587 graded S/U.

BIOL 601. Biological Documentation Techniques (1) Fall. Biological literature retrieval, bibliographic techniques, data storage. Required for all master's students.

BIOL 602. Biodocumentation (1). A research project, with written report, approved by a faculty advisor. This course will follow BIOL 601 and both courses must be taken for Plan II. Graded S/U.

BIOL 603. Biostatistics (4) Fall. Principles of experimental design and methods of statistical analysis of biological data. Three one-hour lectures, one two-hour laboratory. Lab fee.

BIOL 611. Transmission Electron Microscopy (4) Fall. Theory and practice of techniques in transmission electron microscopy applicable in biological research. Instruction and practice in specimen preparation and examination. Computer applications in image processing, image analysis, and electronic communication. Two one-hour lectures and two three-hour

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laboratories. Prerequisite: consent of instructor. BIOL 515 strongly recommended. Lab fee.

BIOL 613. Scanning Electron Microscopy (4) Spring. Theory and practice of scanning electron microscopy applicable to structural/compositional research. Critical point drying, sample coating techniques, backscattered 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. Lab fee.

BIOL 618. Neurophysiology (3) Fall. The function of vertebrate and invertebrate nervous systems in relation to biophysical mechanisms. Changes occurring during development, learning, aging, and neurological disorders. Three one-hour lectures. Prerequisites: BIOL 204 and 205, or consent of instructor.

BIOL 619. Neuroethology (3) Spring (alternate years). Mechanistic approaches to understanding natural behaviors, from the subcellular level to considerations of life history, ecology, and evolution.

BIOL 621. Molecular Genetics I (3) Fall. Fundamental principles of molecular biology, focusing on mechanisms of gene regulation and methods in molecular genetic analysis. Both prokaryotic and eukaryotic systems are presented. Two 90-minute lectures. Prerequisites: CHEM 341, BIOL 515, or consent of instructor.

BIOL 623. Molecular Genetics II (3) Spring. Fundamental principles of molecular biology with additional emphasis on the detailed biochemistry of gene expression in prokaryotes and eukaryotes. These topics are discussed with respect to the design and interpretation of experimental work. Two 90-minute lectures. Prerequisites: BIOL 621 or consent of instructor.

BIOL 631. Biology of Aging (3) Spring. Biological aspects of normal aging at the cellular, tissue, and organismic level. Coverage includes both human and non-human species. Prerequisite: GERO 601 or consent of instructor.

BIOL 641. Behavioral Ecology (3) Spring. Theoretical principles and empirical studies in behavioral

ecology, the study of how behavior contributes to survival and reproductive success. Two 90-minute lecture/discussion periods weekly. Prerequisite: undergraduate course in behavior or ecology, or consent of instructor.

BIOL 643. Methods in Ecology, Behavior, and Evolution (4) Fall. Field and laboratory experience in methods commonly used by workers in ecology, animal behavior, and evolutionary biology, including sampling, observational methods, electrophoretic and other molecular techniques, experimental design. One two-hour lecture, plus Saturday field/lab work. Team-taught. Lab fee.

BIOL 657. Graduate Research in Marine Science (2-6). Opportunities are available 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 671. Operation and Management of Blood Banks (3). 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 672. Field Service (3). 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 673. Supervised Blood Banking Practice (4). Innovative and complex practice in an accredited immunohematological reference laboratory or transfusion service. Several aspects including serological problem solving, antibody manipulation and identification, reagent preparation, and transfusion blood component therapy are performed under the supervision of qualified technical directors. May be repeated. Arranged off campus for immunohematology programs only. Prerequisite: consent of program director.

BIOL 680/681. Seminar in Biological Sciences (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated. BIOL 680 for a grade; BIOL 681 graded S/U.

BIOL 682/683. Topics in Biological Sciences (1-4). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration. May be repeated. BIOL 682 for a grade; BIOL 683 graded S/U.

BIOL 684/685. Directed Readings in Biological Sciences (1-6). Supervised independent readings in a focused area of study. May be repeated. BIOL 684 for a grade; BIOL 685 graded S/U.

BIOL 691. Directed Research (1-12). Supervised research. Graded S/U.

BIOL 694/695. Workshop in Biological Sciences (1-6). Study of a particular topic in an intensive format. Topics vary. May be repeated. BIOL 694 for a grade; BIOL 695 graded S/U.

BIOL 699. Thesis Research (1-12). 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. Graded S/U.

BIOL 701. Eukaryotic Molecular Biology (3) Spring (alternate years). Current research in molecular biology of yeast and other selected eukaryotes. Gene structure, expression, and regulation, RNA processing, organelle biogenesis, protein targeting, and genetic engineering. Three hours of lecture. Prerequisite: BIOL 509 or equivalent or CHEM 545 or equivalent, or consent of instructor.

BIOL 703. Molecular Biology Laboratory (3) Spring. Recombinant DNA methods: experiments on gene expression, cloning vectors, restriction analysis, and determination of base sequences in DNA. Two four-hour laboratories and one one-hour laboratory arranged. Prerequisites: BIOL 509 or 705 (past or concurrent enrollment), microbiology or biochemistry recommended. Lab fee.

BIOL 705. Biochemical Genetics (3) Spring. Molecular biology of plasmids, virions and transposons.

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Studies on gene expression, gene therapy and recombinant DNA technology. Three hours of lecture. Prerequisite: BIOL 509 or consent of instructor.

BIOL 707. Mutagenesis (3) Fall (alternate years). Advanced topics in mutagenesis, including mechanisms of spontaneous and induced gene and chromosome mutations, repair, transposable DNA elements, genetic toxicology, mutations and cancer, molecular mutagenesis, and the evolutionary implications of mutations. Three one-hour lectures. Prerequisite: BIOL 350.

BIOL 709. Cytogenetics (3) Spring (alternate years). Cellular and molecular organization of eukaryotic chromosomes; their epigenetic activities and phylogenetic and oncogenetic functions. Modern chromosome techniques: theory and practice. Two one-hour lectures and one two-hour laboratory. Prerequisites: BIOL 350, or consent of instructor. Lab fee.

BIOL 711. Drosophila Genetics (3) Spring (alternate years). Advanced genetics of *Drosophila* in classical and molecular research. Three one-hour lectures. Prerequisite: BIOL 350.

BIOL 713. Developmental Genetics (3) Fall (alternate years). The manner in which genes control or modulate the process of development. Three one-hour lectures. Prerequisite: BIOL 350.

BIOL 715. Virology (4) Fall (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. Lab fee.

BIOL 721. Advanced Animal Physiology (3) Fall (alternate years). An in-depth consideration of the physiochemical principles underlying physiological function of selected animal systems. Three one-hour lectures. Prerequisite: BIOL 515 and 521 or equivalents and organic chemistry; or consent of instructor.

BIOL 725. Helminthology (3) Spring (alternate years). Zoological classification, structural characteristics, life cycles, geographical distribution, methods of transmission, pathology, and physiology of helminths. Two one-hour lectures, one three-hour laboratory. Prerequisite: BIOL 567 and consent of instructor. Lab fee.

BIOL 731. Advanced Plant Physiology (3) Fall (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 515 or consent of instructor.

BIOL 741. Population and Ecological Genetics (3) Spring (alternate years). Development and assessment of genetic theory of evolution; kinds and amounts of genetic variability in natural populations and evolutionary mechanisms that maintain and eliminate variability. Three one-hour lectures. Prerequisite: BIOL 545 or consent of instructor.

BIOL 743. Theoretical Population and Community Ecology (4)

Fall (alternate years). Theoretical models of single species ecology and their application to natural populations; biological interactions among populations and their effects on the structure of natural communities. Three one-hour lectures and one two-hour recitation/laboratory.

BIOL 745. Aquatic Ecology (3) Spring (alternate years). Integrated investigations of population and community ecology of freshwater organisms. One two-hour lecture and one three-hour laboratory. Prerequisite: BIOL 553 and consent of instructor. Lab fee.

BIOL 780/781. Seminar in Biological Sciences (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. BIOL 780 for a grade; BIOL 781 graded S/U.

BIOL 782/783. Issues in Biological Sciences (1-4). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration. May be repeated. BIOL 782 for a grade; BIOL 783 graded S/U.

BIOL 784/785. Directed Readings in Biological Sciences (1-6). Supervised independent readings in a focused area of study. May be repeated. BIOL 784 for a grade; BIOL 785 graded S/U.

BIOL 799. Dissertation Research (1-16). 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.

Career and Technology Education

Master of Education

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Graduate Faculty

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Associate Professors - Keith Bernhard, Ph.D.; Ernest Ezell, Ph.D.; Larry Hatch, Ph.D.; Stephen Quilty, M.A.; Wilfred Roudebush, Ph.D.; Todd Waggoner, Ph.D.

Assistant Professors - Angelo Brown, Ed.D.; Stan Guidera, M.A.; Kathryn Hoff, Ph.D.; Royce Ann

Martin, Ph.D.; Frank Petrella, Ph.D.; Steven Purcell, Ph.D.; Donna Trautman, Ph.D.

The **Master of Education in Career and Technology Education** (C&TE) program is designed for individuals interested in one of the following two areas.

Training and Development: The C&TE program is designed to prepare individuals who desire professional qualifications in the field of training and development. Course work is

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based on the American Society for Training and Development (ASTD) competencies for professional practice in human resource development.

Each course of study is prepared based on individual background, interests, and needs. Course work in the College of Technology emphasizes skills in needs analysis, instructional design, instructional strategies, presentation graphics, evaluation, cost benefit analysis, and adult learning and motivation. These are blended with course selections from other University program offerings such as technical communication, industrial psychology, human resource management, education, and organization development. Many courses involve projects in a business or industry setting.

Technology/Technical Education:

The C&TE program is designed to prepare individuals who desire to become leaders in the area of technology/technical education. Course work includes curriculum development, evaluation, instructional media, presentation graphics, and research in technology/technical education. The program also allows for technical upgrading related to the subject being taught. An emphasis can also be developed in the area of administration, supervision, or evaluation and research.

Training and development and technology/technical education may be pursued as cognate areas for graduate degrees in family and consumer sciences, technical writing, educational administration and supervision with an emphasis in higher education administration, business education, and technology. Students pursuing a Ph.D., specialist, or master's degree in other disciplines can work with their major advisor and an advisor in C&TE to complete a cognate in training and development or technology/technical education.

Prerequisites to Graduate Work

A bachelor's degree in education or a related technical or professional area is required. If the graduate coordinator determines deficiencies in a student's background, additional undergraduate or graduate work will be prescribed.

Admission Procedure

Applicants seeking admission to

the M.Ed. program should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants must present an undergraduate grade point average of no less than a 2.7 on a 4.0 scale.

Degree Requirements

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Candidates may pursue the M.Ed. degree under one of two plans.

Plan I: Under this research-centered plan, students must take a minimum of 33 semester hours of graduate credit, write a thesis, and pass a final oral examination.

Plan II: Under this course-centered plan, students must take a minimum of 36 semester hours of graduate credit, write, and defend a major project or comprehensive examination.

In order to maximize graduate offerings in relation to career goals, the remainder of the degree program is designed by each student in consultation with the graduate coordinator. Persons who have undergraduate work in a component area of career and technology education may pursue a degree program to broaden their career opportunities. For example, for teaching or supervisory certification objectives, a degree program can be developed that meets both state certification standards and program standards. Persons from business or industry may similarly individualize their degree programs. For example, for developing industrial training competencies, instructional technology, and technical writing specializations can be pursued. Additional program materials may be obtained from the graduate coordinator.

Courses for Graduates

C&TE 601. Principles of Career and Technology Education (3) Fall, Summer. 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 650. Instruction of Career and Technology Subjects (3) Fall, Summer (odd years). 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 653. Theory of Technology Education (3) Fall, Summer.

Current practice and theory of technology education related to technological, societal, and educational influences and placed in historical perspective.

C&TE 654. Curriculum in Career and Technology Education (3) Spring. Critical review of existing and theoretical comprehensive career and technology education curricula.

C&TE 656. Curriculum in Technology Education (3) Spring. Critical review of existing curricula, diffusion techniques, adoption problems in technology education, vocational education, and technical education.

C&TE 657. Facilities Planning in Career and Technology Education (3) Fall (odd years), Summer (even years). 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 658. Technology in America (3) On demand. Nature of technology, development, effects upon society, and likely impact on future.

C&TE 659. Training in Industry and Business (3). An introduction to the theory and practice of training and development systems within the area of human resource development. Addresses the role of training in organizations, adult learning, needs analysis, instructional design, formative and summative evaluation, cost-benefit analysis, professional organizations in HRD, and other relevant topics.

C&TE 660. Evaluation in Career and Technology Education (3) Spring. Principles and procedures in measuring and evaluating programs, courses, student, and teacher behavior in career and technology education.

C&TE 661. Curriculum Development in Career and Technology Education (3) Summer. Develops competencies in the process of curriculum development; includes preparation of curricular language, occupational analysis techniques,

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instructional procedures, implementation and evaluation, diffusion, and adoption techniques.

C&TE 666. Theories of Vocational Behavior (3) Fall (even years), Spring (even years). Review of contemporary vocational development theories, related literature, and research in education and, 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) Fall. Responsibilities and administrative relationships in career and technology education. Supervisory techniques, personnel relations, program development, processing proposals, interpretation of pertinent legislation, and in-service programs.

C&TE 679. Research in Career and Technology Education (3) Fall, Spring. 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 680. Seminar in Career and Technology Education (3) Fall, Summer. Directed study, investigation, and research in selected fields in career and technology education.

C&TE 682/683. Topics in Career and Technology Education (1-3) On demand. This course will address selected topics such as regulations, legislation, curriculum, instructional technology, or personnel issues. May be repeated on approval of advisor. C&TE 682 for a grade; C&TE 683 graded S/U.

C&TE 684/685. Directed Readings in Career and Technology Education (1-3). Supervised study, selected problems, and/or tailored readings. Proposed program of study must be approved by instructor prior to registration. May be repeated to six credit hours. C&TE 684 for a grade; C&TE 685 graded S/U.

C&TE 688/689. Internship in Career and Technology Education (1-3). Placement within setting related to student's academic specialization: training and development professional or technology education

professional. Proposed field placement must be approved by major advisor prior to registration. May be repeated to six hours. C&TE 688 for a grade; C&TE 689 graded S/U.

C&TE 690/691. Directed Research in Career and Technology Education (1-6). Supervised independent research on delimited topic. Generation of new knowledge as contrasted with a private reading course. Proposal for directed research must be approved by instructor/major advisor prior to registration. C&TE 690 for a grade; C&TE 691 graded S/U.

C&TE 694/695. Workshop in Career and Technology Education (1-4). Workshops on current topics and issues within discipline. May be repeated. C&TE 694 for a grade; C&TE 695 graded S/U.

C&TE 697. Supervised Practicum in Career and Technology Education (1-6). Supervised practical field application or clinical experience offered on an individualized basis. Graded S/U.

C&TE 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

C&TE 699. Thesis Research (1-12). Credit for thesis study. A student may register for unlimited thesis credits with a maximum of six credits allowable toward degree requirements. The minimum acceptable total is three credit hours. Graded S/U.

Technology Courses for Graduates
TE 562. Career and Technology Education in Elementary Schools (3) Spring, On demand (odd years). Development and evaluation of instructional activities to facilitate career development and understanding of technology among elementary children.

VCT 566. Principles of Multimedia Production (3) Fall. Exploration and experimentation in various visual presentation technologies including digital media. Emphasis on design and production of total presentations. Four hours lecture/laboratory. Prerequisite: VCT 203 and 308, or instructor approval.

TECH 603. Data Analysis and

Decision Making in Technology (3) Spring, Summer (odd years). Concepts of data analysis, distribution and probability, variance and inference, data and their uses, and other statistical analysis techniques with technological and industrial applications.

TECH 633. Visual Communication for Business and Industry (3). An accelerated inquiry into the theories and processes of systematic communication problem solving, slide presentation, desktop publishing, presentation graphics, and non-broadcast television production.

TECH 662. Analysis, Design, and Development in Training (3) Fall, Spring. Emphasizes the theory and competencies in training needs assessment, subject matter analysis, development of training/HRD proposals, and the design of training projects to meet client needs. Course work includes training projects in business, industry, and other organizations. Prerequisite: C&TE 659 or consent of instructor.

TECH 663. Implementing Training Systems (3) Fall, Spring. Emphasizes the theory and processes involved in implementing, evaluating, and documenting effective training and development projects and programs. Course work includes training projects in business, industry, and other organizations. Prerequisite: C&TE 659 or consent of instructor.

TECH 665. Computer Courseware Design (3) Spring, Summer (on demand). An inquiry into the systematic development of instructional computer software ("computer courseware"); use of "multimedia" courseware authoring systems (CAS) applied to training problems; plus an overview of courseware authoring languages (CAL) and hypertext-based development tools. Prerequisite: C&TE 659 or consent of instructor.

NOTE: Students wishing to pursue additional technical courses may do so with permission of their advisor. Technical courses are listed under the Master of Industrial Technology degree program.

Chemistry

Master of Arts in Teaching

Master of Science

Deanne Snavely, Chair,
David S. Newman, Graduate Coordinator - M.A.T. Program
Thomas H. Kinstle, Graduate Coordinator
Nora R. Cassidy, Graduate Program Specialist
Room: 141 Overman Hall
Phone: 419-372-2033

Graduate Faculty

Professors - Arthur Brecher, Ph.D.; Thomas Kinstle, Ph.D.; Neocles Leontis, Ph.D.; Douglas Neckers, Ph.D.; David Newman, Ph.D.; Michael A. J. Rodgers, Ph.D.; William Scovell, Ph.D.; Deanne Snavely, Ph.D.

Associate Professors - John Cable, Ph.D.; W. Robert Midden, Ph.D.; Michael Ogawa, Ph.D.

Assistant Professors - Felix Castellano, Ph.D.; Vladimir Popik, Ph.D.

Programs leading to the **Master of Science** and the **Master of Arts in Teaching** degrees are offered by the **Department of Chemistry**. The Master of Science in chemistry program offers thesis research opportunities in the traditional areas of organic, inorganic, analytical, physical, and biochemistry. Through the Center for Photochemical Sciences, the department also offers opportunities to combine the traditional disciplines with other sciences to explore basic and applied research problems in the photochemical sciences. The Center offers a Ph.D. program in photochemical sciences. See the "Photochemical Sciences" section for further information.

Prerequisites to Graduate Work

Completion of an undergraduate major in chemistry as defined by the American Chemical Society is desirable. Three years of chemistry, one year of college physics, and mathematics through calculus are required.

Applicants from other undergraduate degree majors are considered for admission if they plan to specialize in biochemistry. Such applications are considered on an

individual basis and enrollment in some undergraduate courses is sometimes necessary to attain prerequisites for graduate work.

Admission Procedure

Applicants seeking admission to graduate programs in chemistry should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Master of Science

All first-semester students must take an orientation examination in the fields of organic and physical chemistry just prior to the first registration. These are nationally standardized tests at a difficulty level similar to the final undergraduate examinations in each of these areas. The results are used to advise students in their initial course registration.

Students may pursue the M.S. degree under one of two plans.

Plan I: Candidates must complete a minimum of 30 semester hours of graduate credit and a thesis. The following courses (or their equivalents) are required: CHEM 506; at least one course from CHEM 542, 614, 618, and 621. CHEM 681 registration is required each semester of residence. Students must complete four of the following six area choices, or have previously had their equivalent: (1) CHEM 554 or 625 (Analytical); (2) CHEM 614 or 621 (Physical); (3) CHEM 542 or 618 (Organic); (4) CHEM 563, 615, 616 (Inorganic); (5) CHEM 545 or 547 or any two from 641-644 (Biochemistry); and (6) approved courses in biological sciences, mathematics, or physics.

Two of the four areas must be completed with 600-level courses. Students receive credit toward graduation for no more than six hours of CHEM 699; two hours of CHEM 681; two hours of CHEM 682; two hours of CHEM 690; and three hours of CHEM 631-636. Courses such as CHEM 681, 682, 690, and 694 include a wide range of topics and specialized training sessions in laboratory and instrumentation

research techniques, thereby affording students opportunities to broaden their knowledge outside their chosen specialization area.

Candidates are required to pass a written examination in their major field of research specialization at least three months prior to submitting their thesis for approval. The written examination is waived for students whose grade point average is at least 3.3 in the courses from the area choices listed above completed at the time they first satisfy the four-area and two 600-level course requirements. Candidates must complete a research project acceptable to their committee. This research is to be described and evaluated in the thesis.

Candidates must also pass an oral examination defending their thesis research and covering closely allied areas.

Plan II: Candidates must complete 33 semester hours of graduate credit and a written comprehensive examination. The following courses (or their equivalents) are required: CHEM 506 and 690; three of CHEM 542, 545, 554, and 563. CHEM 681 registration is required each semester of residence. Students who have taken equivalent courses as an undergraduate may not receive credit for these courses. Candidates must complete four of six area choices listed under Plan I.

Students must complete a minimum of 20 hours of chemistry course work, of which no more than two hours may be in CHEM 681, no more than four hours in CHEM 682, and no more than four hours in CHEM 690. CHEM 699 and CHEM 631-636 cannot be applied as credit towards the Plan II degree. Students must present two CHEM 681 seminars.

Candidates must pass a written comprehensive examination covering the areas of chemistry included in their degree program not later than four weeks prior to the awarding of the degree.

Courses for Graduates

CHEM 502. Numerical Methods in Chemistry (2) Spring. Use of computers and numerical methods in chemistry; survey of computer graphics and microcomputer-based instrumentation in chemical research.

Chemistry

Prerequisite or corequisite: CHEM 505.

CHEM 505. Physical Chemistry (4) Fall. Thermodynamics and kinetics. Prerequisites: CHEM 201 (or CHEM 136) and MATH 232, and either PHYS 212 or PHYS 202.

CHEM 506. Physical Chemistry (4) Spring. CHEM 505 continued. Electro-chemistry, quantum mechanics, spectroscopy, and molecular structure. Prerequisite: CHEM 505.

CHEM 507. Integrated Analytical and Physical Laboratory (2) Fall. Principles of measurement; spectral, chromatographic, and electroanalytical techniques; thermodynamic and kinetic measurements; computerized data acquisition. Two three-hour laboratories. Prerequisite or corequisite: CHEM 505. Lab fee.

CHEM 508. Integrated Analytical and Physical Laboratory (2) Spring. Continuation of CHEM 507. Prerequisite: CHEM 507; prerequisite or corequisite: CHEM 506. Lab fee.

CHEM 511. Organic Chemistry (3) Fall, Summer. Structure, reactivity, and applications of organic substances. Credit not accepted for M.S. in Chemistry. Credit not given to enrollees with previous credit in organic chemistry. Four lectures. Prerequisite: one year of general college chemistry.

CHEM 512. Organic Chemistry (3) Spring, Summer. CHEM 511 continued. Three lectures. Prerequisite: B or better in CHEM 511.

CHEM 542. Organic Reaction Mechanisms (3) Fall. Fundamentals of organic reaction mechanisms and methods for their elucidation. Includes coverage of relevant bonding theories, stereochemistry principles, and reactive intermediates. Prerequisite: CHEM 342. Prerequisite or corequisite: CHEM 505.

CHEM 545. General Biochemistry (3) Fall. Structure, function, chemical, and physical properties of proteins and nucleic acids. Prerequisites: CHEM 342 and either CHEM 352 or CHEM 506, or consent of instructor.

CHEM 546. Biochemistry Laboratory (1) Fall. Experimental techniques in biochemistry. Three-hour laboratory. Prerequisite or corequisite: CHEM 545. Lab fee.

CHEM 547. General Biochemis-

try (3) Spring. Metabolism, energetics, and regulation of biochemical processes. Prerequisite: CHEM 545.

CHEM 549. Advanced Biochemistry Laboratory (2) Spring. Research techniques in biochemistry. Two three-hour laboratories. Prerequisite: CHEM 546 or consent of instructor. Lab fee.

CHEM 553. Environmental Chemistry (2) Fall (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 202).

CHEM 554. Instrumental Methods of Analysis (3) Spring. Theory of instrumental methods of analysis including electroanalytical, spectroscopic, and chromatographic methods. Prerequisite: CHEM 508 or consent of instructor.

CHEM 563. Advanced Inorganic Chemistry (3) Fall. Chemical bonding, stereochemistry, acid-base chemistry, periodicity, nonmetal and transition metal chemistry, organometallic and bioinorganic chemistry. Prerequisites: CHEM 342 and CHEM 506.

CHEM 566. Spectroscopic Methods in Organic Chemistry (3) Spring. 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 505.

CHEM 613. Advanced Physical Organic Chemistry (3) Spring. Topics include computer-aided calculations of bonding and structure, orbital symmetry and theory of pericyclic reactions, and reactive intermediates/unstable species including electronic excited states. Prerequisites: CHEM 342 and CHEM 506.

CHEM 614. Quantum Chemistry and Spectroscopy (3) Fall. Application of quantum mechanics to atomic and molecular structure and chemical bonding. Survey of atomic and molecular spectroscopy; theoretical treatment, and applications. Prerequisite: CHEM 506.

CHEM 616. Bioinorganic

Chemistry (3) Alternate years. Introduction to the role of inorganic chemistry in biological processes. Includes the study of the biological role of metal ions, structure, and function of metalloproteins, electron-transfer reactions, and medicinal applications of metal complexes. Prerequisite: CHEM 463 or consent of instructor.

CHEM 617. Biorganic Chemistry (3). Introduction to the organic chemistry that occurs during biological processes. The course includes the structure and function of major classes of enzymes, discussion of biological catalysis, and case studies highlighting medical applications of organic chemistry.

CHEM 618. Synthetic Chemistry (3) Fall. Methodologies and strategies for synthesis of organic, organometallic, and biological molecules. Emphasis on research described in current chemical literature. Prerequisite: CHEM 613 or consent of instructor.

CHEM 621. Chemical Thermodynamics (3) Fall. Introduction to classical and statistical thermodynamics of gases, liquids, and solutions. Emphasis will be placed on the relationship between experimental results and abstract concepts such as entropy, enthalpy, and free energy. Prerequisite: CHEM 506.

CHEM 622. Advanced Chemical Kinetics (2) Spring. This course covers all the main features of modern chemical kinetics, analysis of rate processes, and discussion of rate theories. Prerequisite: CHEM 506.

CHEM 625. Chemical Analysis (3) Fall. 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 506.

CHEM 631. Topics in Regulation of Enzyme Function (1-4). Advanced seminar covering topics of current research and historical background in regulation of enzyme function. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 633. Topics in Organic Synthesis and Natural Products (1-

Chemistry

4). Advanced seminar covering topics of current research and historical background in organic synthesis and natural products. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 634. Topics in Biophysical Chemistry (1-4). Advanced seminar covering topics of current research and historical background in biophysical chemistry. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 635. Topics in Thermodynamics (1-4). Advanced seminar covering topics of current research and historical background in thermodynamics. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 636. Topics in DNA-Protein Interactions (1-4). Advanced seminar covering topics of current research and historical background in DNA-protein interactions. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 640. Oncogenes and Cancer (2) Summer. Introduction into the aspects of cancer development, including current theories on the mechanism of action for proteins encoded by oncogenes and tumor suppresser genes. Prerequisite: CHEM 445 or consent of instructor.

CHEM 641. Biochemistry of Inherited Metabolic Diseases (1) Fall (alternate years). Alternate pathways of metabolism resulting from mutations and hereditary diseases. Prerequisite: CHEM 547 or consent of instructor.

CHEM 642. Biochemistry of Hormones (1) Fall (alternate years). Structure, function, metabolism, and interrelationships of peptide, steroid, fatty acid, and aromatic hormones. Prerequisite: CHEM 547 or consent of instructor.

CHEM 643. Biochemistry of Protein-Nucleic Acid Interactions (2) Spring (alternate years). Current concepts and mechanisms of replication and transcription. Prerequisite:

CHEM 547 or consent of instructor.

CHEM 644. Biophysical Chemistry (2) Spring (alternate years). Conformational studies of biological macromolecules, including nucleic acids, proteins, and carbohydrates; studies of membrane structure; techniques used for the study of structure and function of biological molecules; and chemical behavior of biological molecules. Prerequisites: CHEM 547 or consent of instructor.

CHEM 650. Research Topics in Photosynthesis (1-4). Advanced seminar covering topics of current research and historical background in photosynthesis. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 651. Research Topics in Polymer Photochemistry and Photophysics (1-4). Advanced seminar covering topics of current research and historical background in polymer photochemistry and photophysics. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 653. Research Topics in Photoinitiated Electron Transfer Reactions and Photodynamic Therapy (1-4). Advanced seminar covering topics of current research and historical background in photoinitiated electron transfer reactions and photodynamic therapy. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 654. Research Topics in Vibrational Spectroscopy and Vibrational Overtone Activation (1-4). Advanced seminar covering topics of current research and historical background in vibrational spectroscopy and vibrational overtone activation. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 655. Research Topics in Supramolecular Photochemistry (1-4). Advanced seminar covering topics of current research and historical background in supramolecular photochemistry. A maximum of three

credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 656. Research Topics in Laser Spectroscopy (1-4). Advanced seminar covering topics of current research and historical background in laser spectroscopy. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 657. Research Topics in Organic Photochemistry (1-4). Advanced research seminars covering topics of current research and historical background in specialized fields of photochemical sciences. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 658. Research Topics in Inorganic Redox Processes (1-4). Advanced seminar covering topics of current research and historical background in inorganic redox processes. A maximum of three credit hours can be applied toward degree. Prerequisite: consent of instructor. May be repeated. Graded S/U.

CHEM 681. Seminar in Chemistry (1). Selected topics in chemistry. Every graduate student in chemistry is required to register for this course each semester in residence. Graded S/U.

CHEM 682. Topics in Chemistry (1-2). Study at advanced level of specific topics in chemistry of current interest. May be repeated for total of no more than four credit hours with clearly different topics.

CHEM 683. Problems in Chemistry (1-2). Studies of recent advances in important research problems presented by visiting eminent scholars. Graded S/U.

CHEM 684. Directed Readings in Chemistry (2). Supervised independent readings focused in areas related to thesis research. Prerequisite: consent of graduate coordinator and instructor.

CHEM 690. Directed Research in Chemistry (2). Individual projects of advanced nature to supplement previous laboratory experience and to prepare for independent research. Prerequisite: consent of graduate coordinator and instructor.

CHEM 691. Directed Research

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(1-12). Supervised research. Enrollment in excess of six hours acceptable for Plan I master's degree, but no more than six credit hours can be applied toward degree. Graded S/U.

CHEM 694. Workshop on Current Topics in Chemistry (1-4)

On demand. Workshop on current topics and issues within discipline; topics vary from semester to semester.

CHEM 699. Thesis Research (1-12). Thesis study. Enrollment in excess of six hours acceptable for

Plan I master's degree, but no more than six credit hours can be applied toward degree. Minimum acceptable total for degree is four hours. Graded S/U.

College Student Personnel

Master of Arts

Michael Coomes, Chair/Graduate Coordinator

Room: 330 Education Building
Phone: 419-372-7382

Graduate Faculty

Professors - Donald Gehring, Ed.D.; Carney Strange, Ph.D.

Associate Professors- Michael Coomes, Ed.D.; Robert DeBard, Ed.D.; Fiona MacKinnon-Slaney, Ph.D.; Carolyn Palmer, Ph.D.

The **Master of Arts degree in College Student Personnel**, offered by the **School of Leadership and Policy Studies**, is designed to prepare individuals for employment within the general area of student affairs and student development services in postsecondary education. Candidates are prepared as generalists and are qualified for positions in such areas as admissions, orientation, residence life, student activities and organizations, counseling and career development, alumni affairs, financial aid, and placement. This program offers both rigorous academic preparation and extensive experiential learning opportunities. All students are required to successfully complete a two-year internship, which they may complement with additional practicum experiences. Through elective course work, students may also complete a specialized emphasis focusing on the needs of returning adult learners.

Prerequisites to Graduate Work

There is no specific undergraduate major required as a prerequisite for application for the College student personnel program. However, it is helpful for applicants to have completed some course work in the

behavioral sciences, such as psychology or sociology. The quality of the applicant's undergraduate program, letters of recommendation, and employment or other such experiences are important factors in determining the admissibility of an applicant to program. Invited applicants must also interview successfully for an internship assignment before a recommendation is made to the Graduate College for regular admission to the program.

Admission Procedure

Applicants seeking admission to the graduate program in College student personnel should follow the instructions outlined in the "Graduate Admission" section of this catalog and should contact the College student personnel program directly for additional supplemental application materials.

Degree Requirements

Master of Arts

The M.A. degree program allows some flexibility in planning based on the individual student's needs and goals. College student personnel courses emphasize the social, psychological, and philosophical foundations of student affairs practice in postsecondary institutions. Although most of the course requirements are met by offerings in the College of Education and Human Development, candidates are encouraged to take advantage of appropriate courses in the College of Arts and Sciences, the College of Technology, and the College of Business Administration.

The required 45 semester hours of graduate credit include a series of College student personnel core courses, one course each in statistics and research methodology, and additional courses from multidisciplinary sources in consultation with a department advisor. Students may select courses that provide concentrations in such areas as counseling or administration, or

that focus on the needs of special student populations, such as returning adult learners.

Appointment to a required internship position is earned through a competitive interview process arranged by the College student personnel program. These internships include positions on the University campus and at nearby cooperating institutions.

Students may pursue the M.A. degree in college student personnel under one of two plans.

Plan I: Candidates must complete a thesis compatible with their background and interests.

Plan II: Candidates must complete a written and oral comprehensive examination prepared and scheduled by the department.

Courses for Graduates

CSP 601. Foundations and Functions of College Student Personnel

(3) Fall, Summer. History, philosophy, and goals of student affairs units in colleges and universities; emphasis on practitioner roles and responsibilities.

CSP 602. Theory and Assessment of College Student Development (3) Fall, Summer. Examination of theories describing patterns of growth and development during the college years. Implications for the design of educational practice on the college campus.

CSP 603. Theory and Assessment of Educational Environments

(3) Fall, Spring. Application of environmental theory to the assessment of human environments. Special emphasis on the study of select campus environments, and their influence on students.

CSP 604. Educational Outcomes of American Colleges and Universities

(3) Fall. Examination of the impact of postsecondary educational institutions on students; exploration of barriers to student

College Student Personnel - Communication Disorders

development and role of student affairs in reducing these barriers and increasing the beneficial impacts.

CSP 605. Capstone Seminar in College Student Personnel (3) Spring. Professional seminar designed to integrate the core curriculum and practical experiences, and to prepare students for the transition to professional positions.

CSP 620. A Developmental Perspective on the Adult Learner (3) Fall. Examination of adulthood as a dynamic period of continuing change and learning by exploring theories and research on adult development. Special emphasis on psychosocial characteristics of adults and on developmental life tasks as they impact on the returning adult learner. Departmental consent required.

CSP 621. Facilitating Adult Learning (3) Spring. Overview of the nature, theory, and process of adult learning, and its facilitation in educational contexts. Focus on the characteristics of adult learners, their cognitive development, and learning styles. Implications for program planning are studied and practiced. Departmental consent required.

CSP 622. Student Services for the Adult Learner (3) Fall. Overview of student service functions in higher education as they relate to the increasing population of adult learners on campus. Particular emphasis upon motivations for learning and special characteristics of these "non-traditional" students, and upon the design and evaluation of program models to meet their learning needs. Departmental consent required.

CSP 630. Issues in College Student Personnel (3) Spring, Summer. Examination of current and emerging issues in student development and student personnel programs.

CSP 632. Basic Documents in

College Student Personnel (3) Spring, Summer. Intensive study of selected professional literature describing historical and philosophical bases of contemporary student personnel practices.

CSP 634. The Adult Learner in Higher Education (3) Summer. Examination of the theory, research, and application models addressing needs of nontraditional age students in higher education. Special emphasis on the design of student services for returning adult learners.

CSP 635. Moral and Ethical Development of College Students (3) On demand. Examination of moral development theory, research and assessment techniques. Special emphasis on principles and strategies used to design and evaluate educational interventions intended to promote moral development in higher education settings.

CSP 636. Intervention Strategies for Promoting Student Development (3) On demand. An examination of the process of intentionally promoting student development in the college years, with special attention given to theory-to-practice models of program development in student affairs contexts. Prerequisites: CSP 601, 602, 603, 689.

CSP 640. Organizational Strategies in Student Affairs (3) On demand. An application of traditional and non-orthodox perspectives to the understanding of organizations and organizational change in higher education and student affairs settings. Topics include traditional and non-orthodox organizational theories, paradigm shifts, leadership, organizational change, and communication within organizations.

CSP 680. Graduate Seminar in College Student Personnel (1-3). Generic seminar on selected topics and concerns in college student personnel. May be repeated upon approval of graduate coordinator.

CSP 684. Readings in Application of College Student Personnel Concepts and Procedures (1-3). Independent study, supervised study of 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 advisor if graduate program department credit is desired or at discretion of student for personal growth.

CSP 689. Supervised Field Experience in College Student Personnel (3) Fall, Spring. 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. Graded S/U.

CSP 690. Directed Research in College Student Personnel (1-4). Supervised independent research on delimited topic related to college student personnel. Proposal for directed research must be approved by instructor prior to registration.

CSP 694. Workshop on Current Topics in College Student Personnel (1-2). Study, readings to provide professional development activities. Topics vary from semester to semester. May be repeated on approval of student's advisor.

CSP 697. Practicum in College Student Personnel (1-4). Supervised experiential learning within an appropriate student affairs area. Approval by supervisor necessary prior to registration. May be repeated upon approval of the student's advisor. Graded S/U.

CSP 699. Thesis Research (1-12). Credit for thesis option selected under Plan I of the master's degree program. Minimum acceptable total for completion of degree is four hours. Graded S/U.

Communication Disorders

Master of Science
Doctor of Philosophy

Linda Petrosino, Chair
Larry Small, Graduate Coordinator
Room: 200 Health Center
Phone: 419-372-2515

Graduate Faculty

Professors - John Folkins, Ph.D.;
Linda Petrosino, Ph.D.; Clyde Willis,

Ph.D.

Associate Professors - Elizabeth I. Burroughs, Ph.D.; Roger Colcord, Ph.D.; Ronald Scherer, Ph.D.; Larry Small, Ph.D.

Assistant Professor - Lynne Hewitt, Ph.D.; Jeff Searl, Ph.D.

Communication Disorders

The **Department of Communication Disorders** offers programs leading to the degrees of **Master of Science** and **Doctor of Philosophy**. Specialization in speech-language pathology is available under the M.S. program. The M.S. program is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association and meets the academic requirements of the Association's Certificate of Clinical Competence as well as the requirements of licensure from the State of Ohio.

Prerequisites to Graduate Work

Admission to the M.S. program usually requires 45 quarter hours or 30 semester hours of undergraduate work in communication disorders. Applicants may be permitted to substitute certain undergraduate credits in biology, English, and psychology for communication disorders credits. Applicants with undergraduate majors in fields other than communication disorders will be considered for admission on an individual basis. The graduate coordinator will review the records of all incoming graduate students in accordance with their declared interests and, if necessary, students may be required to take undergraduate course work prior to consideration for admission.

Applicants who have a master's degree in communication disorders from an accredited institution may be admitted to advanced graduate study beyond the master's level if, in the judgment of the department, the record indicates potential for successful advanced work.

Admission Procedure

Applicants seeking admission to the graduate programs in communication disorders should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Science

Students may pursue the M.S. degree under one of two plans.

Plan I: Candidates must complete a minimum of 43 semester hours of graduate course work, which must include a basic course in statistics and at least three hours of thesis research. Prior to pursuing a thesis topic, a CDIS student must attain a

3.0 GPA in communication disorders courses, as well as demonstrate adequate clinical performance.

Plan II: Candidates must complete a minimum of 43 semester hours of graduate course work. Students cannot change from Plan I to Plan II after they have received official approval of a thesis topic.

In both Plan I and Plan II, details of expected course sequences in CDIS may be obtained from the CDIS graduate coordinator and are found in the department's Master's Degree Handbook.

The final examination for students under both plans is the national examination in Speech-Language Pathology (NESPA). This test is administered by the NTE and can only be taken after all required academic work is completed. Therefore, this examination is usually taken during a student's last semester of study (during their externship). Students who present a thesis also undergo an oral final examination in addition to the national examination.

Doctor of Philosophy

The doctoral program requires a minimum of 60 semester hours beyond the master's degree, including dissertation credit; successful completion of a written and oral preliminary examination related to the student's program of study; and completion of the appropriate language option. Students must write a dissertation which is an appropriate culmination of their program of study and pass a final oral examination over the dissertation. Details of expected course sequences and dissertation directions may be obtained from the CDIS graduate coordinator.

Courses for Graduates

CDIS 600. Speech for Graduate Students (1-4). For graduate students in other fields who wish to refine their skills in speech, language, and hearing. Does not count toward degree requirements. Graded S/U.

CDIS 601. Speech Science (4) Fall. Acoustics, physiology of speech mechanism, speech acoustics, and speech perception. Two 75-minute lectures and one laboratory experience per week.

CDIS 603. Medical Aspects of

Speech and Hearing (2) On demand. Relationship between medical fields and speech and hearing pathology. Weekly visits to physicians' offices, hospitals, and treatment centers.

CDIS 605. Communication Disorders and Aging (3) Fall. Survey of research and theory of speech and language abilities of older adults, and factors that influence developmental changes. Prerequisite: GERO 601 or consent of instructor.

CDIS 606. Diagnostics in Communication Disorders I (2) Fall. Diagnostic principles and methods relating to the assessment of communication disorders in children and adults.

CDIS 607. Diagnostics in Communication Disorders II (1-3). Supervised clinical diagnostic experience in speech-language pathology. May be repeated. Prerequisite: CDIS 606 or equivalent, or consent of instructor. Graded S/U.

CDIS 610. Hearing Science (4) Fall (alternate years). Anatomy and physiology of the auditory mechanism. Basic topics in psychoacoustics, including psychophysical methods, auditory sensitivity, frequency selectivity, masking, perception of pitch and loudness, binaural hearing and speech perception. Two 75-minute lectures and one two-hour laboratory. Prerequisite: consent of instructor.

CDIS 611. Motor Speech Disorders (3) Spring. Neuro-anatomy relevant to the production of speech. Nature, etiologies, diagnosis and treatment of dysarthria and dysphagia.

CDIS 615. Basic Diagnostic Audiology (3) Fall (alternate years). Theoretical and clinical basis for pure tone and speech audiometry, masking, audiometer calibration, and reporting test results. Pediatric testing procedures. Prerequisite: consent of instructor.

CDIS 621. Voice Disorders (3) Spring. Diagnosis and treatment of voice disorders in children and adults.

CDIS 625. Advanced Diagnostic Audiology (3) Spring (alternate years). Tests for sensorineural hearing loss, advanced speech audiometric techniques, central tests, immittance audiometry. Prerequisite:

Communication Disorders

CDIS 615 or consent of instructor.

CDIS 631. Aphasia and Related Neuropathologies (3) Fall. Neurological bases of aphasia and neurogenic speech disorders; nature, etiology, diagnosis, and treatment of the aphasias and apraxia of speech.

CDIS 635. Electrophysiological Techniques (3) Spring (alternate years). Evoked potentials and tests of vestibular function. Prerequisite: consent of instructor.

CDIS 641. Stuttering (3) Spring. Analysis of research and clinical application related to etiology, onset, development, and maintenance of stuttering.

CDIS 645. Auditory Rehabilitation (3) Fall (alternate years). Rehabilitation of the hearing-impaired. Speech-language characteristics of the hearing-impaired child; auditory and visual stimuli in communication; lipreading and auditory training techniques. Prerequisites: CDIS 361 or equivalent, or consent of instructor.

CDIS 651. Oral Facial Anomalies (3) On demand. Etiology, diagnosis, habilitation of cleft palate and related craniofacial disorders.

CDIS 655. Hearing Aids (3) Spring (alternate years). Amplification systems and fitting techniques. Prerequisite: CDIS 645 or consent of instructor.

CDIS 661. Pediatric Language Disorders (3) Fall. Disorders of language in the pediatric population, from infancy through preschool age. Includes phonological disorders and development. Methods of assessment and treatment and issues related to prevention. Prerequisite: CDIS 351 or equivalent.

CDIS 665. Adult Aural Rehabilitation (3) Spring (alternate years). Topics in adult aural rehabilitation; cochlear implants and tactile aids for the hearing-impaired; service delivery systems. Prerequisite: CDIS 645 or consent of instructor.

CDIS 671. Language Disorders in the School-Age Population (3) Fall. Development and disorders of language in the school-age population. Principles and methods of assessment and intervention. Prerequisite: CDIS 351 or equivalent.

CDIS 675. Medical Audiology (3) Fall (alternate years). The physical

symptoms and audiologic manifestations associated with disorders of the auditory system. Prerequisite: CDIS 610 or consent of instructor.

CDIS 676. Research Methods in Communication Disorders (3) Summer. Introduction to research, research strategies and techniques, and implications of research in communication disorders.

CDIS 679. Administration of Speech-Language-Hearing Programs in the Schools (3) Spring. Organization and management of programs in schools for children with speech-language-hearing disorders. Field experiences require application of professional knowledge by completing structured field activities. C/F hours: 65.

CDIS 680/681. Seminar in Communication Disorders (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. CDIS 680 for a grade; CDIS 681 graded S/U.

CDIS 682. Topics in Communication Disorders (2-3). Advanced seminar in speech-language pathology or audiology. May be repeated with permission of advisor and graduate coordinator.

CDIS 683. Topics in Communication Disorders (2-3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration. Graded S/U.

CDIS 685. Directed Readings in Communication Disorders (1-3). Supervised independent readings in a focused area of study. Graded S/U.

CDIS 687. Independent Study in Communication Disorders (1-4). Supervised independent completion of a project other than readings. Graded S/U.

CDIS 689. Internship (1-9) 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. Research Problems in Communication Disorders (1-3). Independent studies and research problems in communication disorders for master's degree students. Each registration must be approved by

department chair. May be repeated with approval of advisor and graduate coordinator.

CDIS 692/693. Research Group in Communication Disorders (1-3). A group research project accomplished in the laboratory of or under the auspices of a designated instructor. CDIS 692 for a grade; CDIS 693 graded S/U.

CDIS 694. Workshop on Current Topics in Communication Disorders (1-3) On demand. Readings and experiences; topics vary from semester to semester. May be repeated with approval of graduate coordinator.

CDIS 695. Workshop in Communication Disorders (1-3). Study of a particular topic in an intensive format. Topics vary. Graded S/U.

CDIS 696. Practicum in Audiology (1-3). Clinical experience in diagnostic and rehabilitative audiology. May be repeated. Prerequisite: consent of instructor. Graded S/U.

CDIS 697. Practicum in Speech-Language Pathology (1-3). Supervised clinical experience in Speech-Language Pathology. May be repeated. Prerequisite: consent of instructor. Graded S/U.

CDIS 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

CDIS 699. Thesis Research (1-12). Credit for thesis study. Enrollment in excess of six hours is acceptable for Plan I master's degree, but no more than six hours are credited toward the degree. Minimum acceptable for degree is three hours. Graded S/U.

CDIS 700. Teaching Communication Disorders (1). Problems which arise in day-to-day teaching assistant activities. Includes observations by regular faculty. Graded S/U. Must be taken by graduate assistants each semester they have an assignment.

CDIS 741. Acoustic Phonetics (3) On demand. Acoustical characteristics of speech; laboratory techniques of acoustical analysis of speech. Prerequisite: CDIS 601 or consent of instructor.

CDIS 751. Physiological Phonetics (3) On demand. Physiology of speech production; laboratory techniques for research in physiology

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of speech. Prerequisite: CDIS 601 or consent of instructor.

CDIS 761. Advanced Research Instrumentation (3) On demand. Methods and theory in use of advanced instrumentation in empirical research. Prerequisite: consent of instructor.

CDIS 780/781. Seminar in Communication Disorders (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of graduate coordinator. CDIS 780 for a grade; CDIS 781 graded S/U.

CDIS 782/783. Topics in Communication Disorders (2-3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration. CDIS 782 for a grade; CDIS 783 graded S/U.

CDIS 785. Directed Readings in Communication Disorders (1-3). Supervised independent readings in a focused area of study. Graded S/U.

CDIS 787. Independent Study in Communication Disorders (1-4). Supervised independent completion of a project other than readings. Graded S/U.

CDIS 789. Internship (1-9) 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 791. Research Problems in Communication Disorders (1-3). Independent studies and research problems in communication disorders for doctoral degree students. Registration must be approved by department chair. May be repeated with approval of advisor and graduate coordinator. Graded S/U.

CDIS 792/793. Research Group in Communication Disorders (1-3). Supervised group laboratory research within an area of study which results in the completion of a project. Prereq-

uisite: consent of graduate coordinator and consent of instructor. CDIS 792 for a grade; CDIS 793 graded S/U.

CDIS 796. Practicum in Audiology (1-3). Clinical experience in diagnostic and rehabilitative audiology. May be repeated. Prerequisite: consent of instructor. Graded S/U.

CDIS 797. Practicum in Speech-Language Pathology (1-3). Supervised clinical experience in speech-language pathology. May be repeated. Prerequisite: consent of instructor. Graded S/U.

CDIS 798. Readings for Preliminary Examination (1-12). Readings for preparation of the preliminary examination. Prerequisite: consent of graduate coordinator. Graded S/U.

CDIS 799. Dissertation Research (1-16). Student must register for a minimum of 16 hours in 799 while working on the doctoral dissertation. May be repeated to 30 hours in degree program.

School of Communication Studies

Master of Arts Doctor of Philosophy

Julie A. Burke, Interim Director
Lynda Dee Dixon, Graduate Coordinator
Room: 302 West Hall
Phone: 419-372-8349

Graduate Faculty

Professors - Alberto González, Ph.D.; F. Dennis Hale, Ph.D.; John Makay, Ph.D.

Associate Professors - Nancy Brendlinger, Ph.D.; Julie Burke, Ph.D.; Catherine Cassara, Ph.D.; Lynda Dee Dixon, Ph.D.; James Foust, Ph.D.; Melissa Spirek, Ph.D.

Assistant Professors - Paige Edley, Ph.D.; Radhika Gajjala, Ph.D.; Bettina Heinz, Ph.D.; Wayne Norton, Ph.D.; Terry Rentner, Ph.D.

The **School of Communication Studies** offers programs leading to the degrees of **Master of Arts** and **Doctor of Philosophy**. Students

receive a general background in communication with a wide range of courses taught by faculty in the School's two departments: Journalism and Interpersonal Communication.

Prerequisites to Graduate Work

Applicants to the M.A. program must hold a bachelor's degree from an accredited institution with a satisfactory academic record. Usually, applicants should have an undergraduate major or minor in one of the related communication fields; others will be considered for admission on an individual basis. Applicants without sufficient course work background may be required to complete remedial or additional course work during the M.A. course of study.

Admission to the doctoral program requires an appropriate master's degree from an accredited institution with an excellent academic record, evidence of research proficiency, and a record which otherwise indicates potential for successful advanced work.

Admission to graduate work is, in the final analysis, a composite decision, made by the departmental admissions committee and by all of

the graduate faculty members. Admission is based upon prior academic experience and achievement, GRE scores, letters of recommendation, and the applicant's stated goals.

Admission Procedure

Applicants seeking admission to the graduate programs in communication studies should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applications are accepted year around, but funding requests for the following fall should be in by February 1.

Degree Requirements

Master of Arts

The master's degree has two emphases: organizational communication/public relations and communication research.

Plan I: Candidates must complete a minimum of 33 semester hours of graduate credit and a thesis, with a maximum of four hours of thesis credit (COMS 699). Students who write a thesis must pass an oral final examination with a committee composed of two communication studies faculty members and a third member either from communication studies or another program.

Communication Studies

Plan II: Candidates must complete a minimum of 33 semester hours of graduate credit and a written comprehensive examination. Plan II approval is not granted after the student has requested and received official approval of a thesis topic. Students in Plan II have the option of completing a project in consultation with the student's advisor and committee. (Enrollment for this project should be done through COMS 692 offered for 1-4 hours, with an S/U grading plan.)

In the comprehensive examination for the master's degree, candidates are expected to show a knowledge of the discipline of communication, research methodologies, and two other courses. The four one and one-half hour questions are answered by the student during the first full week of October, March, or June, or as announced.

Candidates under both plans must complete 12 hours in the core: COMS 600, Introduction to Communication Studies; COMS 630, Social Scientific Research Methods (has a co/prerequisite of a graduate-level statistics course); and COMS 640, Humanistic Research Methods. Students should complete 9-12 additional credits in communication studies (three courses). Students who have assistantships also are required to take COMS 620, Communication Pedagogy: Preparing Future Faculty, in the first semester that it is offered after they are funded. No more than four hours of readings or internship count toward the 33 hours.

Doctor of Philosophy

The doctoral degree has two emphases: media studies and communication and culture.

The doctoral program requires the following: 73 hours of course work beyond the M.A., 16 hours of dissertation credit, 21 hours in six core classes, nine to 12 hours in three tool courses (see note below), 12 hours in an approved cognate area, and 16 hours in other COMS courses to prepare students for their area of emphasis. A maximum of four hours of readings may be counted toward the degree. Internship hours do not count toward the degree. [Note: One of the core methods courses may count as one of the three tool

courses. The co/prerequisite graduate-level statistics course may also count, if deemed appropriate by the advisor and student.]

The core courses are COMS 600, Introduction to Communication Studies; COMS 610, Philosophical Foundations of Communication Theory; COMS 620 Communication Pedagogy; COMS 630, Social Scientific Research Methods (has a co/prerequisite of a graduate-level statistics course); COMS 640, Humanistic Research Methods; and COMS 695, Preparing Future Faculty. All full-time doctoral students are required to take COMS 703, Colloquium in Communication Studies (0 credit, graded S/U), which meets three times a semester.

The preliminary examination, administered at or near the completion of course work, consists of 18 to 22 hours of written examinations during a one-week time period. Although other topics may be included, the following categories must be addressed: (1) primary area of interest; (2) secondary area of interest/cognate; (3) theory; and (4) methods/tools. The advisor and the student work together to prepare the preliminary examination. The student's committee will consist of at least four members: an advisor from communication studies, two other communication studies faculty members, and an outside member appointed by the Graduate College.

Courses for Graduates

COMS 586. Workshop in Communication (1-4) Topics may vary from semester to semester. May be repeated with consent of graduate coordinator.

COMS 587. Workshop in Communication Studies (1-4) On demand. Readings, experiences, and topics vary from semester to semester. May be repeated with consent of communication studies graduate coordinator. Graded S/U.

COMS 600. Introduction to Communication Studies (4) Fall. Provides an overview of the history of communication studies that includes research areas and a survey of theories and methods. Acquaints students with graduate faculty and their research interests. Cultivates

students' scholarly writing and research skills.

COMS 601. Rhetorical Criticism (4). Perspectives and methods of rhetorical criticism with applications to rhetorical practice.

COMS 602. Communication Legal Research Methods (4). Introduction to the background, methods, procedures, and resources required to perform research in the area of communication law and policy.

COMS 610. Philosophical Foundations of Communication Theory (4). Examines philosophical foundations of communication theory development. Introduces multiple schools of thought and paradigmatic perspectives that inform our foci in communication and culture and media studies.

COMS 620. Communication Pedagogy: Preparing Future Faculty (4) Fall. Designed for potential college teachers of interpersonal and public communication courses, it offers research, theory, methods, issues, and practical tips.

COMS 630. Social Scientific Research Method (4). Applies social scientific methods to communication research problems. Prerequisite: one course in statistical inference at the graduate level (list of acceptable courses in graduate handbook).

COMS 640. Humanistic Research Methods (4). Introduces and examines specific techniques and applications for various qualitative and critical methods for conducting research in communication studies such as: documentary/bibliographic and legal methods, ethnography, historiography, interviewing, media criticism, participant observation, rhetorical criticism, and feminist approaches.

COMS 644. Ethics and Persuasion (4) Alternate years. Exploration of ethical problems related to persuasion; emphasis on various approaches: means, ends, rationality, marketplace of ideas, dialogue, amorality, and symbol usage.

COMS 651. Rhetorical Theory: Contemporary (4) On demand. Examination of major rhetorical theorists of the 20th century: Richards, Weaver, McGree, Condit, Burke. Emphasis on central themes, problems, similarities, and differ-

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ences.

COMS 652. Human Communication (4) Fall. Contemporary perspectives on human communication.

COMS 653. Interpersonal Communication (4) Fall. Emphasis on theory and research relating to dyadic communication.

COMS 654. Small Group Communication (4) On demand. The study of human interaction in the small group setting. Practical experience with simulations, games, case studies, and structured human relations experiences. Applications to organizational consulting and communication seminars.

COMS 655. Organizational Communication (4) Spring. Structural functional approach to communication in organizations; problems of information load, content and procedural rules, and networks; techniques of auditing organizational communication behaviors.

COMS 656. Health Communication (4) On demand. Introduction to health communication from the communication perspective. Course will expose the student to past and current research in the field of health communication and will require the student to apply various methodologies in a related research project.

COMS 657. Intercultural Communication (4) Introduction to intercultural communication from the communication perspective. Course will cover past and current research with attention to theories and methodologies. Course will require a research project or proposal.

COMS 683. Problems/Topics/Issues in Communication (1-4). Graded S/U.

COMS 685. Readings in Communication (1-4). Supervised independent program of tailored readings in selected topics, issues, or problems pertinent to student's interests or needs. Proposed program must be approved by instructor prior to registration. May be repeated. Graded S/U.

COMS 688. Internship (1-10). Supervised experience in setting relating to specializations in rhetoric and communication. Prerequisite: consent of graduate coordinator.

COMS 694/695. Workshop in Communication (1-4). Topics may

vary from semester to semester. May be repeated with consent of graduate coordinator. COMS 694 for a grade; COMS 695 graded S/U.

COMS 696. Internship in Communication (1-4). Supervised practical field application of a mass communication specialization in a professional setting. Prerequisites: Core and basic M.A. courses in student's specialization, plus consent of supervising professor.

COMS 698. Readings for Master's Comprehensive Examination (1-4). Supervised independent reading in preparation for the master's comprehensive exam. Graded S/U.

COMS 699. Thesis Research (1-12). No more than four 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. Graded S/U.

COMS 701. Interpretive Research Methods in Communication (4) Spring (alternate years). Introduction to methodological techniques employing the qualitative collection and analysis of data in communication studies. Includes participant observation, interviewing, focus groups, and historical documentation. Research submitted for professional review. Graded S/U.

COMS 702. Descriptive and Inferential Statistics (4). Intermediate-level treatment of research methods and/or statistics employed in mass communication research. Prerequisite: MCOM 605 or consent of instructor.

COMS 703. Colloquium in Communication Studies (0) Fall, Spring. A forum for presentations of faculty and student research projects and research presentations by national scholars. Graded S/U.

COMS 711. Mass Communication Theory (4) Fall. Advanced study of mass communication theory. Prerequisites: MCOM 611 or equivalent. May be repeated with consent of graduate coordinator.

COMS 724. Interpretive Research Methods in Communication (4) Spring (alternate years). Introduction to methodological techniques employing the qualitative collection and analysis of data in communica-

tion studies. Includes participant observation, interviewing, focus groups, and historical documentation. Research submitted for professional review.

COMS 727. Topics in Rhetoric (3-4) On demand. In-depth studies of theories, theorists, or specialized topics in rhetoric. May be repeated.

COMS 728. Research in Organizational Communication (4) On demand. Contemporary research findings in organizational communication with special emphasis on methodologies for studying and auditing networks, climate, information load, and rules.

COMS 729. Topics in Communication (3-4) On demand. In-depth studies in such areas as multivariate data analysis, theory construction, relational communication, and intimate communication. May be repeated.

COMS 730. Critical Analysis of Media (4) Alternate years. Critical views that have dominated the evolution of mass media theory and criticism are described and evaluated. The concerns and norms of film and broadcast criticism are compared and contrasted, and further developed for future use in original research projects. Prerequisite: MCOM 606 or consent of instructor.

COMS 737. Seminar in New Media Research (4). Research approaches to and studies of the uses and impacts of new communication media. May be repeated.

COMS 762. Seminar in Communication Law (1-4) On demand. Mass communication legal theory, case studies, practice. Prerequisites: MCOM 502 or consent of instructor. May be repeated.

COMS 763. Seminar in International Development (1-4) Spring (alternate years). Study of selected topics in international development communication. Prerequisite: consent of instructor. May be repeated.

COMS 764. Seminar in Mass Communication History (1-4). Advanced study of mass communication history or some aspect thereof. Prerequisite: consent of instructor. May be repeated.

COMS 765. International Media (4). Study of the development, objectives, structures, policies, and opera-

tions of key regional and global external media operations. Emphasis on relations of international media to propaganda, education, development, and research.

COMS 767. Persuasion (4).

Theory and practice of communication to influence public opinion and to change behavior. Social marketing campaigns are emphasized.

COMS 771 Research in Organizational Communication (4) On demand.

Contemporary research findings in organizational communication with special emphasis on methodologies for studying and auditing networks, climate, information load, and rules.

COMS 780. Graduate Seminar

in Communication (1-4). Selected cross-disciplinary theoretical or practical problems in communication.

COMS 785. Readings in Communication (1-4). Supervised independent program of tailored readings in selected topics, issues, or problems pertinent to student's interests or needs. Proposed program must be approved by instructor prior to registration. May be repeated. Graded S/U.

COMS 788. Internship (1-10). Supervised experience in setting relating to specializations in rhetoric and communication. Prerequisite: consent of the graduate coordinator.

COMS 789. Internship in Communication (1-3) On demand.

Supervised practical field application of a mass communication specialization in a professional setting. Prerequisites: Core and basic courses in student's specialization, plus consent of the supervising professor. Graded S/U.

COMS 798. Readings for Doctoral Preliminary Examination (1-4). Readings for doctoral comprehensive examinations. Graded S/U.

COMS 799. Dissertation Research (1-16). Student must register for a minimum of 16 hours in 799 while working on a doctoral dissertation; may be repeated to 30 hours in degree program.

Computer Science Master of Science

Ronald Lancaster, Chair
Leland Miller, Graduate Coordinator
Room: 221 Hayes Hall
Phone: 419-372-2337

Graduate Faculty

Professors - Larry Dunning, Ph.D.; Laura Leventhal, Ph.D.; Subramaniam Ramakrishnan, Ph.D.
Associate Professors - Julie Barnes, Ph.D.; David Chilson, Ph.D.; Mohammad Dadfar, Ph.D.; Ann-Marie Lancaster, Ph.D.; Ronald Lancaster, Ph.D.; Walter Maner, Ph.D.; Leland Miller, Ph.D.; Guy Zimmerman, Ph.D.

The **Department of Computer Science** offers the **Master of Science** degree. The M.S. program provides educational opportunities in a wide range of fields of computer science. It offers a strong set of core courses as well as a large selection of specialized elective courses.

Students who wish may select a specialization in parallel and distributed computing, software engineering, telecommunications, or operations research.

The parallel and distributed computing specialization is designed for students interested in the design, analysis and use of integrated, distributed information processing systems. It includes intensive studies on principles of computer networking,

client-server computing, high performance computer architectures, centralized and decentralized operating systems, and creation/visualization of data objects over the network.

The software engineering specialization is designed for students who want a focused study of software engineering. The program provides intensive studies in the software lifecycle, software development methodologies, formal models of software engineering, human-computer interaction, and database management.

The telecommunications specialization is designed for students interested in integrating the development of computing and communications technologies with policy issues. The specialization includes course work in computer networking, distributed computing, and operating systems as well as in the development of telecommunications policy and related social, ethical and legal issues.

The operations research specialization is designed for students who want to use mathematical techniques to model and analyze decision problems. The program includes theory and applications for linear programming, integer programming, network analysis, and simulation.

Prerequisites to Graduate Work

Applicants should have a background in computer science equivalent to that provided by the core undergraduate curriculum. (This does

not apply to students with a concentration in operations research, as indicated below.) Prerequisites may be satisfied by courses actually taken as an undergraduate, by remedial course work taken while a graduate student, or by substantial practical experience in the computer field. Also, applicants should have a minimum mathematical background of differential calculus, integral calculus, and discrete mathematics. Additional courses in mathematics and statistics are also desirable. Deficiencies in mathematics may be made up at the beginning of graduate study.

Applicants planning to specialize in operations research should have a full-year sequence in programming using a higher-level language. Additional prerequisites are a full year of calculus, a course in linear algebra, a course in statistics, and an introduction to operations research. Deficiencies in background may be made up at the beginning of graduate study.

Admission Procedure

Applicants seeking admission to the M.S. program in computer science should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements Master of Science

Candidates must complete a total of 33 hours of graduate course work, including 15 hours of regular computer science course work at the 600

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level, three hours of either CS 691 or CS 699, and 15 additional hours of course work. These additional hours may include computer science course work at the 500 or 600 level, with up to three hours chosen from the following: CS 585, CS 589, or approved graduate courses in other departments.

Candidates must maintain a 3.0 grade point average overall, as well as a 3.0 grade point average in computer science courses.

All candidates are required to give an oral presentation on their thesis, project, or co-op experience.

Students may pursue the M.S. degree under one of two plans.

Plan I: Candidates must prepare a formal thesis while enrolled in CS 699 for at least three hours. No more than three hours of CS 699 may be included in the required total of 33 semester hours of graduate credit. The thesis must be defended at an open meeting. Enrollment in CS 699 is restricted to students who have completed at least 18 hours of course work.

Plan II: Candidates must complete a project while enrolled in CS 691 for at least three hours and must pass a comprehensive examination in computer science. No more than three hours of CS 691 may be included in the required total of 33 hours. Enrollment in CS 691 is restricted to students who have completed at least 18 hours of course work. The comprehensive examination may be taken after the student has completed 18 hours of course work.

Requirements for Optional Specializations:

Parallel and Distributed Computing: The following courses are required of students specializing in parallel and distributed computing: (1) CS 508, 525, 529, 607, 629; (2) either CS 615 or CS 625; (3) a thesis (CS 699) under Plan I or a graduate project (CS 691) under Plan II with the comprehensive examination. CS 542 is a *recommended* course for this specialization.

Software Engineering: The following courses are required of students specializing in software engineering: (1) CS 525, 562, 564, 664; (2) two of CS 615, 625, 665; (3) a

thesis (CS 699) under Plan I or a graduate project (CS 691) under Plan II with the comprehensive examination.

Operations Research: The following courses are required of students specializing in operations research: (1) CS 542, 612, 647, 649; (2) OR 651 or GBA 661; (3) OR 655 or GBA 662; (4) three of the following: CS 325 (Systems Programming), CS 335 (Software Components and Data Structures), CS 360 (COBOL Programming), 525, 528, 562, 564; (5) one of the following: STAT 502, 508, 514, 516; (6) a graduate project (CS 691) and the comprehensive examination.

Courses for Graduates

CS 500. Computing for Graduate Students (3) Spring, Summer. Problem solving and computer programming techniques. Variables, loops, and other control structures, arrays, subprograms, and parameter passing. Credit not applicable toward a degree in computer science. Graded P/U.

CS 508. Operating Systems (3) Spring. Structure of operating systems. Physical input-output, buffering, interrupt processing. Memory, processor, device, information management; resource management interdependencies. Job and processor scheduling. Concurrent programming. Prerequisite: CS 327 or consent of instructor.

CS 509. Language Design and Implementation (3) Fall. Fundamental concepts of languages. Processors, data, operations, sequence control, data control, storage management, syntax, translation. Prerequisite: CS 215.

CS 510. Formal Language Theory (3) Fall (odd years). Various types of languages (context-sensitive, context-free, regular). Discussion of recognition devices such as push-down automata, linear bounded automata, and Turing machines. Some topics of current interest. Prerequisite: MATH 222 or 322.

CS 520. Artificial Intelligence Methods (3) Summer (odd years). Intermediate AI programming with application to representative problems requiring searching, reasoning, planning, matching, deciding, pars-

ing, seeing and learning. Prerequisite: elementary knowledge of Lisp.

CS 525. Computer Graphics (3) Spring (every year), Summer (even years). Graphic I/O devices; 2-dimensional and 3-dimensional display techniques; display processors; clipping and windowing; hidden line removal; data structures for graphics. Prerequisite: CS 215 and one of MATH 222, 322, 332.

CS 529. Data Communication and Networks (3) Spring. Data communications concepts; network topologies; transmission media; network access control; communication protocols; network architecture; LANs, MANs, and WANs; inter-networking. Prerequisite: CS 327 or consent of instructor.

CS 540. Optimization Techniques (3) Fall (even years). Linear programming, game theory, PERT, network analysis; duality theory and sensitivity analysis; applications. Computer programs written to implement several techniques. Prerequisites: CS 101 and MATH 222 or 322.

CS 542. Techniques of Simulation (3) Spring. Principles of simulation and application of simulation languages to both continuous and discrete systems. Prerequisites: CS 215 and MATH 247.

CS 551. Numerical Analysis (3) Fall. Study of numerical methods for interpolation and approximation, integration and differentiation, solution of non-linear equations and systems of linear and non-linear equations. Prerequisite: CS 101 and MATH 332.

CS 552. Numerical Analysis (3) Spring. Study of numerical methods for the algebraic eigenvalue problem, solutions of ordinary differential equations; and topics from approximation theory, numerical solution of partial differential equations, optimization techniques, and sparse matrix computations. Prerequisite: CS 551 and MATH 337.

CS 562. Database Management Systems (3) Fall. Semantic models for conceptual and logical design of databases. Detailed study of relational systems: design, dependency, and normal forms. Use of interactive and embedded query language. Principles of microcomputer DBMS,

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database recovery, and object-oriented systems. Prerequisite: CS 215.

CS 564. Software Development (3) Fall. An in-depth study of all aspects of the software development process: user requirements, specifications, design, coding, testing, maintenance, documentation, management. Use of CASE tools for analysis and design. Prerequisite: CS 324 or consent of instructor.

CS 580/581. Seminar in Computer Science (1-3). Prerequisite: consent of instructor. May be repeated up to six hours if topics are different. CS 580 for a grade; CS 581 graded S/U.

CS 583. Topics in Computer Science (3-4). Overview of topics of current interest. Credit not applicable toward a degree in computer science. Graded S/U. May be repeated.

CS 585. Readings in Computer Science (1-6). Supervised study and/or projects in any area of computer science. Prerequisite: consent of instructor. Graded S/U. May be repeated.

CS 589. Internship (1-3). Supervised professional experience within an occupational setting for the graduate student majoring in computer science. The student is required to prepare both written and oral reports on the experience. Credit hours assigned after completing the work. Graded S/U. May be repeated to a total of three hours.

CS 607. Architecture of Computers (3) Spring (odd years). Architectures of modern computing systems. Techniques for high-speed computation: pipelining, vector processing, array processors. General purpose parallel architectures: SIMD, MIMD and data flow systems and their memory organizations and processor communication. Prerequisite: CS 217.

CS 609. Advanced Compiler Design (3) Spring (even years). Programming language grammars and normal forms, parsing algorithms and semantics specification, optimization, error recovery. Translator writing systems and extensible languages. Prerequisite: CS 509 or 510.

CS 611. Automata and Comput-

ability Theory (3) Summer (odd years). Mathematical models for algorithmic processes, such as finite automata and Turing machines. Limitations of such models.

CS 612. Analysis of Algorithms (3) Fall. Algorithms for solving problems that occur frequently in computer applications. Basic principles and techniques for designing and analyzing algorithms. Prerequisite: CS 205 and MATH 222.

CS 615. Reliable Computing (3) Spring (even years). Techniques for writing reliable software including n-version programming, fault-tolerant data structures and formal proofs of correctness. Rollback and recovery methods. Fault-tolerant hardware and methods of hardware error detection and correction. Prerequisites: CS 335.

CS 620. Advanced Topics in Artificial Intelligence (3) Summer (even years). Intensive study of a major sub-field such as neural networks, expert systems, machine learning/tutoring, natural language processing, pattern recognition, robotics or others.

CS 621. Computer Systems Security (3) Spring (odd years). Security issues in the realm of computers, communications, and the internet. Algorithms for encryption, cryptography, authentication, key exchange protocols, virus detection, database security, and secure internet communication. Models of security policies and computer systems certification. Prerequisites: CS 327 and CS 335.

CS 625. Advanced Computer Graphics (3) Fall. X-Windows, hidden line/surface algorithms, curved lines and surfaces, illumination & shading techniques, color models, geometric and solids modeling, animation techniques. Prerequisite: CS 525.

CS 629. Networks and Distributed Processing (3) Fall. Computer network architecture and protocols. Routing, congestion and flow control. Client-server models and remote procedure calls. Topics may include algorithms for broadcasting, check pointing, termination detection, and other problems. Prerequisites: CS 327.

CS 630. Statistical Packages (3)

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 647. Network Analysis (3) Spring. Network techniques for modeling and analysis of industrial and management problems: project management and resource allocation with PERT/CPM; transportation, transshipment, assignment, shortest path and minimal spanning tree models; maximal flow problems in single and multi-commodity networks; out-of-kilter algorithm; advanced topics in network analysis. Prerequisite: CS 540 or GBA 661.

CS 649. Applied Nonlinear and Dynamic Programming (3) Fall (odd years). Modeling decision problems in business and public administration via nonlinear and dynamic programming. Topics include quadratic and separable programming, penalty function, search methods, geometric programming, dynamic programming with discrete and continuous variables. Prerequisite: CS 540 or GBA 661.

CS 664. Software Engineering (3) Spring (odd years). Advanced topics related to the analysis, design, and development of large software projects. Prerequisite: CS 564.

CS 665. Human Issues in Computing (3) Spring (even years). Behavioral aspects of computing, including topics such as programming style, language features, specification formats, documentation, computer-aided instruction, computer science expertise, training, computing for handicapped users. User-interface design. Research methodology.

CS 680/681. Seminar in Computer Science (1-4). Special course offering on topic of current interest. Prerequisite: consent of instructor. May be repeated up to six hours if topics are different. CS 680 for a grade; CS 681 graded S/U.

CS 691. Directed Research (1-6). Prerequisite: consent of instructor. Graded S/U. May be repeated.

CS 699. Thesis Research (1-12). Prerequisite: consent of instructor. May be repeated. Graded S/U.

Economics

Master of Arts

John Hoag, Chair
Peter VanderHart, Graduate Coordinator
Room: 3002 Business Administration Building
Phone: 419-372-2646

Graduate Faculty

Professors - M. Neil Browne, Ph.D.; Paul Haas, Ph.D.; John Hoag, Ph.D.; Mark Kasoff, Ph.D.; Kyoo Kim, Ph.D.

Associate Professors - Mary Ellen Benedict, Ph.D.; Timothy Fuerst, Ph.D.; Alan Haight, Ph.D.; Kevin Quinn, Ph.D.; Peter VanderHart, Ph.D.

Assistant Professors - Lisa Wilder, Ph.D.; Stephen Ziliak, Ph.D.

The goal of the **Master of Arts in Economics** program is to prepare students for careers in business or government, or for further graduate study in economics. The program is designed to train students to function as professional economists and economic analysts in the corporate, government, and academic sectors.

Prerequisites to Graduate Work

Prerequisites include a minimum of 18 semester hours of undergraduate study in economics courses, including courses in introductory economics, intermediate theory, and statistics; or in courses in cognate fields wherever such courses are determined to be appropriate. Applicants should have at least one semester of calculus before beginning graduate studies in economics. Applicants who do not have the prerequisite background may be admitted. Such students may be required to make up deficiencies as a condition of admission and are encouraged to enroll at the University during the summer preceding their first fall semester to repair deficiencies.

Admission Procedure

Applicants seeking admission to the M.A. in economics program should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts

Candidates are required to earn a minimum of 30 semester hours of graduate credit, of which at least 18 hours must be at the 600 level.

Depending on the student's needs, the student may pursue the M.A. degree under one of two plans.

Plan I: Candidates must complete a thesis and a written and/or oral examination over the thesis; and must pass the theory portion of the comprehensive examination.

Plan II: Candidates must pass both portions (theory and policy evaluation) of the comprehensive examination.

The following course work is required for both Plan I and Plan II: ECON 502, 573, 607, 610, 611, 619, and 671. A minimum of nine credits of elective courses must be taken in economics or in fields such as public administration, business administration, mathematics, statistics, or in such allied social sciences as geography, history, political science, psychology, or sociology. At least three of the elective credits must be earned at the 600 level.

Courses in fields such as statistics, business administration, finance, management, public administration, geography, and others may be incorporated into the interdisciplinary program.

Courses for Graduates

ECON 500. Mathematics for Economics (3) Fall. Elementary mathematical methods and basic applications to economic theory. Not open to students who have had MATH 231 or above.

ECON 501. Mathematical Economics (3) Spring. Economic theory in mathematical context; microeconomic and macroeconomic models, their structure and analysis. Constrained optimization. Prerequisites: ECON 500 or equivalent.

ECON 502. Econometrics (3) Fall. Statistical techniques used to measure economic data and to test validity of theoretical models. Prerequisites: STAT 212 and ECON 500 or consent of instructor.

ECON 510. Economic Analysis (4) On demand. Accelerated course in economic principles and analysis with

application to business decisions; for first-year graduate student without undergraduate preparation in economics. Not applicable toward master's degree.

ECON 511. Price Theory (3). Theory of the firm and applications to business administration. Prerequisite: principles of economics or consent of instructor.

ECON 512. Income Analysis (3). Measurement and determinants of gross national product. Analysis of public economic policies to control price levels, employment, and economic growth. Prerequisite: principles of economics or consent of instructor.

ECON 514. Monetary and Fiscal Policy (3) On demand. Objectives, means, and history of monetary and fiscal control; effect on total economic activity.

ECON 525. Public Health Economics (3) Spring. Focuses on the role of economics of health care and more specifically public health. Students will explore basic micro economics applied to health care and how health care economics might differ from economics of the firm, examine trade-offs between approaches to health care, and examine economic policy relative to public health.

ECON 540. Women, the Economy, and Society (3). Spring. Focuses on the role of gender in the world economy, varieties of feminism, feminization of poverty, the relationship between household and labor market roles, the integration of women in the working world, causes of and responses to the gender wage gap, causes and alternative reactions to sex discrimination in labor markets. Prerequisite: ECON 202 or consent of the instructor. Not available for credit to MA in Economics students.

ECON 551. International Trade (3) On demand. Theory of international economics; international trade as factor in national income; significance of international investment; public policies to promote trade; international economic cooperation.

ECON 552. International Monetary Economics (3) On demand. Alternative international monetary systems; emphasis on present system.

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ECON 554. 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 562. Urban Economics (3) Spring. 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 571. Industrial Organization: Study of Business Size and Competition (3) Spring. 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 572. Comparative Economic Systems (3) Spring. Analysis of contemporary economic systems including capitalism, centrally planned socialist economies, market socialism, and mixed economies.

ECON 573. History of Economic Thought/Methodology (3) Fall. The course examines economic ideas in historical perspective, from antiquity to postmodernism. Economic ideas will circulate in particular methodologies—or in rhetorics against method. Currencies of methodology join the history of ideas to form a genealogy of economic discourse.

ECON 580/581. Seminar in Economics (3) On demand. Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. ECON 580 for a grade; ECON 581 graded S/U.

ECON 584/585. Directed Readings in Economics (1-4). Supervised independent readings in a focused area of study. ECON 584 for a grade; ECON 585 graded S/U.

ECON 588/589. Internship in Economics (1-6). Supervised practical field application or clinical experience offered on an individual basis. ECON 588 for a grade; ECON 589 graded S/U.

ECON 600. Economic Analysis

of the Firm (3). Applications of microeconomic theory to the decision-making process of the firm. Topics include marginal analysis, market structure, competitive strategy, and public policy issues.

ECON 601. Economic Policy (3). Application of concepts introduced in ECON 600. Economic influences on business decision making are evaluated using market and nonmarket economic forces, as well as macroeconomic tools. Current economic environment provides basis of topical content. Prerequisite: ECON 600.

ECON 603. Development of Economic Concepts (3) On demand. Evolution of economic ideas in historical context.

ECON 605. Competition and Monopoly in American Industry (3) On demand. Industry structure, conduct, and performance. Evolution of government policies and their economic significance.

ECON 606. Quantitative Economics (3) On demand. Application of statistical and mathematical concepts to behavior of firms, markets, and aggregate economy. Prerequisite: ECON 500 or consent of instructor.

ECON 607. Graduate Econometrics (3) Spring. Regression techniques applied to economic data. Theory and application are stressed. Use of computer is an integral part of the course. Prerequisite: ECON 502 or consent of the graduate coordinator.

ECON 610. Advanced Microeconomic Theory (3) Fall. Introduction to optimization methods, theories of utility, consumer behavior, production, and firm behavior. Introduction to uncertainty and the economics of information and to non-competitive market structure. Introduction to general equilibrium and welfare economics. Prerequisite: ECON 302 or ECON 511, and ECON 500 or equivalent, or consent of graduate coordinator.

ECON 611. Aggregative Economics (3) Fall. Analysis of short-run determination of aggregate employment, income, prices, and interest rates. Stabilization policies, economic growth, capital accumulation and income distribution. Prerequisite: ECON 303 or ECON 512, and ECON 500 or equivalent, or consent of graduate coordinator.

ECON 612. Monetary Theory and Policy (3) Spring. Modern monetary theory and policy. Synthesis of monetary and macroeconomic theory. Prerequisites: ECON 303 or ECON 311 or ECON 512.

ECON 619. Advanced Economic Policy (3) Fall. Application of Microeconomic and Macroeconomic Theory to problems of business and government. Evaluation of policies of business and government. Specific topics at the discretion of instructor.

ECON 623. 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 624. Seminar in Economic Problems of Labor (3) On demand. Theoretical and empirical analysis of current problems in labor market including relative wage structure, labor mobility, technology, employment, business cycle, and government policies.

ECON 631. Economics of Public Sector (3) On demand. Examines theoretical foundations of taxes, expenditures, and public debt in a market economy.

ECON 651. Seminar in International Economics (3) On demand. International resource allocation, commercial policy, balance of payments, and foreign exchange markets. International economic institutions. Prerequisite: ECON 351 or consent of instructor.

ECON 661. Seminar in Regional and Urban Economic Analysis (3) On demand. Analysis of regional and urban studies and research. Prerequisite: ECON 560 or ECON 562 or consent of instructor.

ECON 670. 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 only.

ECON 671. Policy Topics in Quantitative and Theoretical Economics (3) Spring. Treatment of quantitative and theoretical concepts with policy implications. Expansion of selected topics from core curriculum. Prerequisites: ECON 610, ECON 611,

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and ECON 607 (ECON 607 may be taken concurrently).

ECON 680. Seminar in Economics (3) On demand. Seminar on economic topics deemed appropriate to participants. Prerequisite: consent of advisor. May be repeated.

ECON 681. Economics Research Seminar (3) Spring. 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 502 or equivalent.

ECON 684/685. Directed Readings in Economics (1-4).

Supervised independent readings in a focused area of study. ECON 684 for a grade; ECON 685 graded S/U.

ECON 686/687. Independent Study in Economics (1-4). Supervised independent completion of a project other than readings. ECON 686 for a grade; ECON 687 graded S/U.

ECON 688. Internship in Economics (1-6). Supervised practical field application or clinical experience offered on an individual basis.

ECON 689. Internship (1-6). Supervised professional experience within occupational setting related to student's area of academic specialization. Graded S/U.

ECON 690/691. Directed Research in Economics (1-6). Supervised independent research. ECON 690 for a grade; ECON 691 graded S/U.

ECON 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

ECON 699. Thesis Research (1-12). 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. Graded S/U.

Educational Administration and Supervision (EDAS) Leadership Studies (EDLS)

Master of Education
Specialist in Education
Doctor of Education

Judy Alston, Chair/Graduate Coordinator for EDAS

Room: 511 Education Building
Patrick Pauken, Chair/Graduate Coordinator for EDLS

Room: 509 Education Building
Phone: 419-372-7377

Graduate Faculty

Associate Professor - Eugene T. W. Sanders, Ph.D.

Assistant Professor - Judy Alston, Ph.D.; Robert Ludwig, Ed.D.; David Nicholls, Ph.D.; Patrick Pauken, Ph.D.; Marcia Salazar-Valentine, Ph.D.

The **Department of Educational Administration and Supervision** offers three graduate-level programs for people who are interested in careers in the field of educational administration and leadership.

The **Master of Education** degree is intended for those who wish to qualify as administrators or supervisors in schools or educational service agencies. After completing this

graduate program, most students are eligible to apply course work toward certification by the Ohio State Department of Education in the following areas: assistant superintendent (48 semester hours); elementary principalship (45 semester hours); high school principalship (45 semester hours); and supervisor (33 semester hours).

The **Specialist in Education** program, if carefully planned, will enable students to meet requirements for the positions of superintendent of schools or other administrative specialist positions for which an Ohio certificate is needed.

The **Doctor of Education** degree is designed to prepare individuals for leadership positions in schools and other education services agencies or for teaching/research positions in educational leadership in colleges and universities.

Prerequisites to Graduate Work

Teaching or administrative experience in a school setting prior to pursuing a graduate program in EDAS is not required but strongly recommended. If an applicant is deficient in general and/or professional preparation, additional course work may be required as a condition of admission. Also, if a student is interested in being recommended for an Ohio administrative or supervisory certificate, prior certification and teaching experience are required.

Admission Procedure

Applicants seeking admission to the EDAS graduate programs should

follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants must also fulfill the following departmental requirements for admission.

Applicants to the M.Ed. and Ed.S. programs must submit three written recommendations from professional persons, including an employer.

Applicants to the Ed.S. program must also submit a comprehensive biographical sheet which includes personal information, educational data, and a description of teaching and/or employment experience.

Applicants to the Ed.D. program must submit a professional résumé and four current letters of recommendation. At least one letter should be from a person who is familiar with the applicant's academic work and one letter should be from a person knowledgeable about the applicant's professional competence and potential in terms of leadership and management in administration.

Ed.D. applicants must also submit a written statement approximately two pages in length describing the applicant's present goals, interests, and reasons for seeking admission.

A completed application for a graduate assistantship should also be included if such an appointment is desired.

Degree Requirements Master of Education

Students may pursue the M.Ed. degree under one of two plans:

Plan I: Candidates must write a thesis and complete a minimum of 30 semester hours of graduate course work. The thesis experience provides students with an opportunity to conduct research and to test theory against present practice in administration.

Plan II: Candidates must complete 33 semester hours of graduate course work, including work in statistics and methodology, and a final written comprehensive examination.

Each student's program is planned individually in consultation with an advisor to meet degree and certification requirements.

Specialist in Education

A minimum of 30 semester hours of post-master's graduate work is required. The program of study is spread over courses in: educational administration; professional education outside the area of educational administration; and research methods and educational statistics. An internship or field experience is required.

Doctor of Education

The Ed.D. degree is a 60-hour, post-master's program. A minimum of 44 hours of course work (excluding dissertation research), which includes completion of 25 hours of specified EDLS core courses, ten hours of research methodology courses, and nine hours of cognate focus courses, is required. Specific departmental requirements for the Ed.D. are described in a brochure that can be obtained from the EDAS/EDLS office.

General requirements for each degree are outlined in the "Degree Programs" section of this catalog.

Educational Administration and Supervision Courses for Graduates

EDAS 621. Introduction to Educational Administration (3). An overview of administrative theory, tools, and technology; educational leadership; legal issues; organizational and community relationships; political structures; and program development, evaluation, and accountability.

EDAS 622. The School Principalship (3) Spring, Summer. An in-depth study of organization and administration of schools emphasizing

ing programmatic styles and strategies, administrative policies, personnel concerns, communicative aspects, and decision-making options. The course will also address concepts, processes, and functions of various management models relative to the role of the principal. Prerequisite: EDAS 621 or consent of instructor.

EDAS 623. School Law and Negotiations (3) Fall, Summer. The study of constitutions, statutes, and judicial decisions of federal and state government affecting schools; emphasis on Ohio legal authority, powers, and liabilities of school personnel; legal control, contract management, collective bargaining, and employee-employer relations. Prerequisite: EDAS 621 or consent of instructor.

EDAS 624. School Finance and Management (3) Spring, Summer. A study of school finance and planning models and their applications in educational administration. Prerequisite: EDAS 621 or consent of instructor.

EDAS 625. School Supervision and Staff Development (3) Fall, Summer. The course emphasizes organization of personnel functions, personnel evaluation, supervision, and instructional leadership in education. Prerequisite: EDAS 621 or consent of instructor.

EDAS 630. Internship/Field Experience I (3) Fall, Summer. An initial, supervised, and planned field experience seminar with opportunities for participation and observation in educational administrator/supervisor activities. Prerequisite: completion of 12 semester hours in EDAS including EDAS 622 and EDAS 625.

EDAS 680. Graduate Seminar (1-3) Fall, Spring, 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 682/683. Issues in Educational Administration and Supervision (1-3) Fall, Spring, Summer (on demand). Examination of emerging trends and issues of concern to school administrators. EDAS 682 for a grade; EDAS 683 graded S/U.

EDAS 684. Directed Readings in Educational Administration and

Supervision (1-3) Fall, Spring, Summer (on demand). Independent study, supervised study, selected problems, and tailored readings. Proposed program of study must be developed by student and approved by instructor. May be repeated with approval of student's advisor. Course may be considered for professional growth or certification.

EDAS 690. Directed Research in Educational Administration and Supervision (1-3). Fall, Spring, Summer (on demand). Supervised independent research on delimited topic. Generation of new knowledge. Not readings courses. May run for longer than single semester. Proposal must be approved by instructor/supervisor prior to registration. Graded S/U.

EDAS 695. Workshop on Current Topics in Educational Administration and Supervision (1-3) Fall, Spring, 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 696. Supervised Practicum in Educational Administration and Supervision (1-3) Fall, Spring, Summer (on demand). Supervised experience within an appropriate administrative area of a school district or appropriate educational agency. Approval of supervisor required prior to registration.

EDAS 698. Readings for Comprehensive Examination (1-3). Planned program of study to assist students in preparing for the comprehensive examination. Graded S/U.

EDAS 699. Thesis Research (1-12). 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. Graded S/U.

EDAS 709. Management Strategies in Educational Administration (3) Fall, On demand. Topics that may receive in-depth consideration are community relations; politics and decision making; educational planning; strategic personnel planning; courts and school policy making; and adaptations of technology to administration. May be repeated for a total of nine semester hours.

EDAS 720. Administrative Theories and Educational Administration (3) Spring, Summer (on demand). Theories of administration from government, business, industry, and education; provides broad background for theoretical construction. Prerequisite: administrative experience preferred; EDAS 621 or consent of instructor.

EDAS 721. Administration of Pupil Services, Activities, and Evaluation (3) Fall. A focus on the administration and management of diverse school services, with special attention to practical approaches and techniques for organizing, coordinating, directing, and evaluating effective student-service programs. Prerequisite: EDAS 621 or consent of instructor.

EDAS 722. Community Relations and Politics in Education (3) Summer. An examination of the relationship and interaction of educational organizations to internal and external constituents with emphasis on the theory and processes associated with the school-community relations process, political structures, and conflict resolution. Prerequisite: EDAS 621 or consent of instructor.

EDAS 723. Personnel Administration in Education (3) Summer. An investigation of the underlying personnel functions and concepts with emphasis on policies related to selection, evaluation, and development of personnel. Prerequisite: EDAS 621 or consent of instructor.

EDAS 724. School Business Affairs (3) Spring. The study of strategies and techniques that may be used for planning and managing resources to achieve educational goals and to establish public accountability in schools. Prerequisite: EDAS 621 or consent of instructor.

EDAS 725. Board of Education and Superintendent Relations (3) Spring. Interrelationship of the school board and the superintendent, emphasis on professional roles and responsibilities within the school community. Prerequisite: EDAS 621 or consent of instructor.

EDAS 730. Internship/Field Experience II (1-6) Fall, Summer. An advanced internship/planned field experience that is designed to provide

an in-depth student involvement with a qualified professional in an administrative position consistent with the career goals of the student. Prerequisite: completion of a minimum of 18 semester hours of EDAS course work, a master's degree, and a first internship/field experience.

EDAS 731. Seminar: Educational Law (3) Spring. 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. Prerequisites: EDAS 621 or consent of instructor.

EDAS 732. Seminar: Business Applications in Education (3) Fall, On demand. The study of techniques and strategies that may be used to manage effectively the business affairs of the educational enterprise with special emphasis on planning, systems analysis, forecasting, use of technology, and financial accountability systems. Prerequisites: EDAS 621 or consent of instructor.

EDAS 733. Seminar: Collective Bargaining (3) Fall. The study of the collective bargaining process with emphasis on employee relations, negotiations, contract management, and other legal issues. Prerequisites: EDAS 621 or consent of instructor.

EDAS 734. Seminar: Educational Finance (3) Spring. Financing public education in the U.S. with special emphasis on sources of support, methods of distribution, and problems and issues involved. Prerequisites: EDAS 621 or consent of instructor.

EDAS 735. Seminar: Integrated Leadership in Educational Organizations (3) Fall, Summer. Different theoretical empirical and experiential perspectives for understanding leadership in educational organizations are examined. Emphasis is upon developing an understanding of the multiple realities that characterize educational settings. Prerequisite: eighteen hours of EDAS graduate course work or consent of instructor.

EDAS 736. Seminar: Educational Facilities Planning and Management (3) Summer, On demand. Overview of the planning, modernization, and management of

facilities in education; approached in terms of providing shelter that meets public health, sanitation, and safety requirements and provides the amount, distribution, and character of space, equipment, and furnishings. Prerequisites: EDAS 621 or consent of instructor.

EDAS 737. Seminar in Educational Administration (3) Fall, Spring, Summer (on demand). Functions and processes, applying administrative theories and concepts, and relating knowledge from diverse and interdisciplinary specializations. Prerequisite: EDAS 720 or consent of instructor.

EDAS 780. Graduate Seminar in Educational Administration and Supervision Topics (1-3) Fall, Spring, On demand. Content varies from one year or semester to next. May be repeated on approval of student's advisor. Course may be considered for professional growth or certification.

EDAS 782/783. Issues in Educational Administration and Supervision (1-4) Fall, Spring, Summer (on demand). In-depth analysis of emerging trends and issues in education and their implications for educational leaders. EDAS 782 for a grade; EDAS 783 graded S/U.

EDAS 784. Directed Readings in Educational Administration and Supervision (1-3) Fall, Spring, 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 advisor for a total of nine semester hours.

EDAS 796. Supervised Advanced Practicum in Educational Administration and Supervision (1-3) Fall, Spring, Summer (on demand). Supervised experience designed to enable the student to develop and demonstrate effective leadership in a school or related setting.

EDAS 798. Readings for Preliminary Examination (1-3) Fall, Spring, Summer (on demand). Planned program of study to assist students in preparing for the preliminary examination. Graded S/U.

EDAS 799. Dissertation Research (1-16). Student must register

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for a minimum of 16 hours in this course while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Leadership Studies Courses for Graduates

EDLS 701. Organizational Change (3) Fall. This course is designed to analyze the fundamental behavioral concepts and process of organizations. The complex process of organizational change and how it can be managed through a collection of techniques. Issues such as forces related to creating the need for organizational change in human resource and educational organizations will be examined.

EDLS 711. Moral and Ethical Leadership (4) Spring. Examination, discussion, and application of the major moral and ethical theories and principles confronting organizational leaders. Includes a discussion of the ethical relationships among professionals and the potential conflicts between personal and professional ethics.

EDLS 721. Leadership Theories

(4) Fall. An introductory examination of diverse philosophical and theoretical perspectives which have been used to study leadership and leadership theory as it relates particularly to educational and other human services organization from an interdisciplinary perspective.

EDLS 731. Diversity and Cultural Leadership (3) Spring. This course is designed to examine and bring to consciousness the social, cultural, and historical influences on leadership in a multicultural democracy. This will be done by investigating and making visible aspects of the social forces, cultural dynamics, and historical contexts which influence human experience. Discoveries to leadership roles and practices will also be applied, as well as used to question the ends or purposes of our leadership practices. The course involves both theory and practice with an emphasis on practitioner research.

EDLS 741. Institutional Policy (3) Summer. Institutional Policy has an emphasis on the balance between theory and practice. The students will

examine various decision-making models, as well as the major stages in institutional policymaking and policy analysis, applicable to a variety of professions.

EDLS 761. Technology Trends in Institutional Leadership (3) Spring. Investigation and analysis of technology factors and trends which influence organizations and institutional leadership. Areas include technology changes and effects on community formation, productivity, workflow and the workplace, megachange regarding epistemological/pedagogical possibilities, and an introduction to specific applications of chaos theory and complexity theory to organizations regarding leadership, governance, and technology.

EDLS 771. Internship in Leadership Studies (2) Summer. An advanced internship/practicum placement experience that is designed to be supportive of the experiential needs of each student as these needs relate to achieving that student's career goals. Prerequisite: completion of a minimum of 18 semester hours of EDLS "core" course work.

Educational Foundations and Inquiry (EDFI)

Margaret Booth, Graduate Coordinator
Room: 550 Education Building
Phone: 419-372-7322

Graduate Faculty

Associate Professors - Kathleen Farber, Ph.D.

Assistant Professors - Haithe Anderson, Ph.D.; Margaret Booth, Ph.D.; Patricia Kubow, Ph.D.; Craig Mertler, Ph.D.; Rachel Vannatta, Ph.D.

Graduate offerings in educational foundations and inquiry are open to graduate students in other disciplines and may count toward degree programs in many areas.

Courses for Graduates

EDFI 502. Assessment and Evaluation in Education (3). Assess-

ment and evaluation applied to instructional procedures; construction of assessment tools; interpretations of assessment results. Prerequisite: EDFI 302 and one methods course. C/F hours: 20.

EDFI 515. Spaceship Earth Seminar (3) On demand. Integrating, synthesizing, environmental education seminar for upperclass and graduate students. Using inquiry approach, participants consider relationships of humankind with total environment.

EDFI 516. Philosophy of Environmental Education (3) On demand. Concepts and processes of environmental education including theories such as Toledo model, Strand approach, Environmental Studies Project, Boulder, and other representative models.

EDFI 517. 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 560. 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 580. Seminar in Educational Foundations and Inquiry (1-4). Topics such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of graduate coordinator. Prerequisite: consent of instructor.

EDFI 581. 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:

EDFI

consent of instructor and enrollment in Behavior Analysis Program.

EDFI 586/587. Workshop in Educational Foundations and Inquiry (1-4) On demand. Selected topics in disciplines such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated with approval of graduate coordinator. EDFI 586 for a grade; EDFI 587 graded S/U.

EDFI 600. Philosophy of Education (3). Influence of major philosophers on contemporary American education.

EDFI 601. Comparative Education (3). Comparative study and evaluation of basic factors of education found in representative occidental and oriental educational systems in each cultural setting.

EDFI 602. History of Education (3). Historical background of modern educational theory and practice.

EDFI 623. 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 627. Development of the Elementary School Child (3). Study of the physical, intellectual, and social development of the elementary school-age child and school programs and environments which affect development at this age. Specific emphasis is placed on school intervention programs intended to promote prosocial behavior, cognitive functioning, and physical well-being.

EDFI 640. 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 641. Statistics in Education (3). 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 tests of significance.

EDFI 642. Research in Education (3). Identification and evaluation of research problems, research designs, use of library resources, data

gathering, and writing research reports. Prerequisite: EDFI 641.

EDFI 661. Seminar in Educational Testing (3). An analysis of testing programs and standardized tests presently used in elementary and secondary schools with an emphasis upon interpretation and use of test scores. Prerequisite: EDFI 641 or consent of instructor.

EDFI 670. Readings in Advanced Educational Foundations and Inquiry (1-4) On demand. Supervised advanced independent study by individual on selected problem. May be repeated on approval of graduate advisor. Prerequisite: consent of instructor.

EDFI 671. Human Growth and Development (3) Fall, 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 672. Seminar in Mental Health in Education (3). 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 673. Adolescence (3). Nature of adolescence and development and behavior of adolescents and pubescent in different environments; emphasis in education. Prerequisite: general psychology.

EDFI 677. Contemporary Theory and Research in Classroom Learning (3). 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 educational process.

EDFI 678. Explorations in Human Potential (3) On demand. Dynamics of human interaction, exploration of self, and development of human potentials in context of group. Prerequisite: consent of instructor. Graded S/U.

EDFI 680. Seminar in Educational Foundations and Inquiry (1-

4). Topics such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of graduate coordinator. Prerequisite: consent of instructor.

EDFI 684. Directed Readings in Educational Foundations and Inquiry (1-4). Supervised independent work by individuals on selected problem in fields such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated with consent of graduate coordinator. Proposed program of study must be approved by instructor.

EDFI 690. 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 694. Workshop on Current Topics in EDFI (1-4) On demand. Selected topics within disciplines such as education psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of graduate coordinator.

EDFI 695. Workshop in Educational Foundations and Inquiry (1-4). Selected topics within disciplines such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated with consent of student's graduate advisor. Graded S/U.

EDFI 702. History and Philosophy of Higher Education (3) Fall. Development of forms of higher education in historical and philosophical perspective; relations between institutions of postsecondary education and other social institutions; evolving policies in worldwide systems of higher education.

EDFI 703. Seminar in Cultural Basis of Education (1-4). Lectures from anthropology, sociology, economics, political science, business administration, and other fields.

EDFI 734. College and University Teaching (3). An examination of the philosophies, methodologies, and

related issues (gender, race, et al.) that influence teaching and learning in the college and university classroom setting. Emphasis on teaching effectiveness and the application of course material to the formal classroom environment.

EDFI 743. Nonparametric Statistics in Education (3) On demand. Theoretical study and practical application of distribution free statistical tests. Prerequisite: EDFI 641 or equivalent.

EDFI 750. Quantitative Research and Statistical Methods in Leadership Studies (3). Practical application and utilization of basic research methods and statistical techniques. Specific emphasis is placed upon the development of a research proposal and data analysis using SPSS.

EDFI 751. Advanced Quantitative Methods in Education I (3) Fall. Theoretical constructs in research,

identification and evaluation of research problems, research designs, sampling techniques, data collection instrumentation, and research proposal design. Prerequisite: EDFI 642.

EDFI 752. Advanced Quantitative Methods in Education II (3) Spring. Application of advanced and multivariate statistical techniques. Multiple regression, factorial analysis of variance, multivariate analysis of variance, factor analysis, discriminant analysis, logistic regression, and other topics. Prerequisite: EDFI 641 and 751.

EDFI 771. Seminar in Education Psychology (3). Concepts and their relation to behavior as reflected in current literature and research. Prerequisite: EDFI 671 or equivalent.

EDFI 772. Educational Social Psychology (3). A study of topics in social psychology related to school and the educational process. Aggres-

sion and school vandalism, prejudice and school desegregation, sex-roles and educational equity, group dynamics, and classroom interaction, etc. Prerequisites: EDFI 671 or equivalent.

EDFI 780. Seminar in Educational Foundations and Inquiry (1-4) On demand. Topics such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated on approval of graduate coordinator. Prerequisite: consent of instructor.

EDFI 784. Directed Readings in Educational Foundations and Inquiry (1-4). Supervised independent work by individuals on a selected problem in fields such as educational psychology, measurement, research, history, philosophy, or counseling. May be repeated with consent of graduate coordinator. Proposed program of study must be approved by instructor.

Educational Teaching and Learning (EDTL)

Master of Education Specialist in Education

Edward Fiscus, Interim Chair
 Robert G. Berns, Graduate Coordinator - Business Education
 Gregg Brownell, Graduate Coordinator - Classroom Technology
 Leigh Chiarelott, Graduate Coordinator - Curriculum and Teaching
 Michael French and Cindy Hendricks, Graduate Coordinators - Reading
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Graduate Faculty

Professors - Robert Berns, Ph.D.; Gregg Brownell, Ed.D.; Leigh Chiarelott, Ph.D.

Associate Professors - Daniel Brahier, Ph.D.; Michael French, Ph.D.; D. Rosalind Hammond, Ed.D.; Jodi Haney, Ph.D.; Cindy Hendricks, Ph.D.; Julia McArthur, Ph.D.; Blanche O'Bannon, Ed.D.

Assistant Professors - Lena Ballone, Ph.D.; Cynthia Bertelsen, Ph.D.; Cassaundra El-Amin, Ph.D.; Virginia Keen, Ph.D.; Marcia

Rybczynski, Ph.D.

The **Division of Teaching and Learning (EDTL)** offers programs leading to the degrees of **Master of Education** and **Specialist in Education**. The Master of Education is available in the fields of business education, classroom technology, curriculum and teaching, and reading. The Specialist in Education is available in reading and mathematics supervision. A reading validation program is available for those students who do not wish to pursue a degree program.

The **Master of Education in Business Education** program is designed to qualify students for teaching positions at either the secondary or postsecondary level or for related positions in business and industry.

The **Master of Education in Classroom Technology** is intended to educate leaders in the area of classroom technology. These individuals will be capable of working within their regional, state, and local communities of practice to support and develop the integration of technology into the classroom and the community. Students have both a thesis and non-thesis option to

complete the degree. Upon completion of the program, students can apply to receive the Ohio endorsement in computers/technology.

The **Master of Education in Curriculum and Teaching** combines the former master's degrees in Elementary and Secondary Education. The master's degree in Curriculum and Teaching is designed to provide individuals possessing a bachelor's degree and licensure (certification) as teachers with the opportunity to enhance their understanding of curriculum theory, design and development, and their skill as effective classroom teachers. Individuals who do not possess a teaching license (certificate) may also pursue this degree, but it will not enable them to become licensed (certified) as classroom teachers in public schools. Individuals seeking licensure (certification) as secondary teachers should consult with the graduate coordinator or with the Director of Teacher Licensure in Room 365 Education Building for a transcript analysis and a checklist indicating professional education courses needed for licensure (certification).

The **Master of Education in Reading** is a one-year graduate

program that meets Ohio's reading licensure requirements. The specific goal of the program is to prepare early childhood, middle childhood, and adolescent/young adult teachers to teach reading in early childhood, middle childhood, or adolescent/young adult reading programs. Students may choose from Plan I (thesis) or Plan II (action research project). The M.Ed. leads to a reading endorsement which may be attached to the age-level of the license held by the candidate.

Applicants to the M.Ed. and Ed.S. reading programs should have a teaching license and teaching experience at the early childhood, middle childhood, or adolescent/young adult level.

The **Specialist in Education in Reading** program is designed for students who have a master's degree in reading and wish to extend and enrich their reading education. The specific goal of the program is to prepare teachers to play such leadership roles as reading coordinator, reading clinician, and developmental reading teacher at the college, junior college, or technical college level.

The M.Ed. in reading and the Ed.S. programs are structured in accordance with the licensing requirements established by the State Department of Education and the International Reading Association.

Prerequisites for Graduate Work

Prerequisites for the M.Ed. programs include a bachelor's degree from an accredited institution. For the persons seeking secondary certification in the curriculum and teaching program or grades 4-12 teacher licensure in business education or marketing education, applicants' transcripts are studied to identify deficiencies in preparation in professional education and in those areas for which licensure is desired. If there are deficiencies in the undergraduate preparation, the graduate coordinator prescribes additional course work to cover the area or areas. Completion of the master's degree is a prerequisite to admission into the specialist degree program.

Applicants to the M.Ed. and Ed.S. reading programs should have teacher certification and teaching

experience at the early childhood, middle school, or secondary school level.

Admission Procedure

Applicants seeking admission to the graduate programs offered by EDTL should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Education in Business Education

Plan I: Candidates must complete a total of 33 semester hours of graduate credit which includes the program core, one of the six program options, and thesis credit. Students must complete 15 hours in the program core (BUSE 601, BUSE 602, BUSE 603, BUSE 628, EDFI 641) and 15 hours in one of the six program options listed below. The remaining three hours must be completed by enrolling in BUSE 699, Thesis Research. Candidates under Plan I must complete a thesis under the direction of a graduate faculty advisor.

Plan II: Candidates must complete a total of 33 semester hours of graduate credit. A final written comprehensive examination is required. Students must complete the program core (BUSE 601, BUSE 602, BUSE 603, BUSE 628, EDFI 641) and choose one of the program options listed below.

Students in both plans must complete one of the following program options:

(1) *Business Education or Marketing Education Licensure:* follow approved teacher licensure checklist;

(2) *Master Teacher in Business Education* (12 hours): BUSE 653, BUSE 555, six hours in selected content area, and six hours of related graduate courses with graduate coordinator approval;

(3) *Master Teacher in Marketing Education* (12 hours): BUSE 563, BUSE 653, six hours in selected content area, and six hours of related graduate courses with graduate coordinator approval;

(4) *Postsecondary Education* (12 hours): 12 hours in selected content area and six hours of related graduate courses with graduate coordinator approval;

(5) *Vocational Supervisor in*

Business/Marketing Education: follow approved vocational education supervisor certificate checklist; and

(6) *Training and Development* (12 hours): BUSE 697, C&TE 659, TECH 662 or TECH 663, TECH 633 or ENG 640, and six hours of related graduate courses with graduate coordinator approval.

Master of Education in Curriculum and Teaching

Candidates must complete a minimum of 33 semester hours of graduate work approved by the graduate coordinator. (1) Professional core (choose two): EDTL 611, 616, 648, 649, 710; (2) assessment and research (choose two): EDFI 641 and 642 or EDTL 653; (3) development and learning (choose one): EDFI 627, 671, 673, 677; (4) foundations (choose one): EDFI 600, 601, 602; (5) advanced methods (choose one): EDTL 610, 640, 641, 642, 643, 645, 646, 647; (6) electives (selected with the approval of advisor): may be taken from any supporting department in the college as well as other content areas as approved; (7) culminating activity (choose one): (a) complete a significant research paper (EDTL 684), (b) complete a classroom-based master's project (EDTL 684), (c) complete a master's thesis (EDTL 699).

Under both programs, students pursue the M.Ed. degree under one of two plans.

Plan I: Candidates must prepare a thesis and complete an oral examination conducted by members of the thesis committee.

Plan II: Candidates must complete a written comprehensive research paper or classroom-based project before the completion of the course work for the degree.

Master of Education in Classroom Technology

Candidates must complete a minimum of 33 semester hours of graduate credit. The following courses are required: EDTL 611, EDTL 631, EDTL 632, EDTL 633, EDTL 638, EDFI 641, and EDFI 642. Candidates must also complete a minimum of 12 credits of suggested courses, including EDTL 634, EDTL 635, EDTL 636, EDTL 637. Substitutions for suggested courses may be drawn from units including, but not

limited to, computer science, the College of Musical Arts, the College of Technology, and the College of Education and Human Development. Substitutions must be approved in writing by the program coordinator.

Master of Education in Reading

Candidates must complete a minimum of 33 semester hours of graduate credit. Course work depends on the license currently held by the candidate. The following course work is required:

(1) Required Core Courses - The required core reading courses which meet Ohio licensure requirements for early childhood reading endorsement are EDTL 520, 621, 626, 661, and 664. The required core reading courses which meet Ohio licensure requirements for middle childhood reading endorsement are EDTL 520, 621, 626, 662, and 665. The required core reading courses which meet Ohio licensure requirements for adolescent/young adult reading endorsement are EDTL 620, 621, 626, 663, and 666.

(2) Required Research Courses - The required research courses for Plan I (thesis) are EDFI 641 and EDTL 699. The required research courses for Plan II (action research project) are EDFI 641, EDTL 684, and either EDFI 642 or EDTL 653.

(3) Cognate Field - Six semester hours in a cognate field are required. Cognate is to be determined in consultation with graduate advisor. General requirements and degree plans can be found under the heading Master of Education in the "Degree Programs" section of this catalog.

Specialist in Education (Reading)

A minimum of 33 semester hours of post-master's graduate work is required. Course work should consist of: (1) a minimum of 15 semester hours in reading/language arts beyond the master's level; (2) at least 12 hours in a cognate area (selected in consultation with the graduate advisor); (3) three hours of EDTL 684 which is to be used in the development of a scholarly research paper; and (4) a practicum or field-service experience for three to six semester hours. Prerequisites include: EDTL 621, 626, either EDTL 520 or 620; either 661, 662, or 663; and either

EDTL 664, 665, or 666. Research prerequisites include: EDFI 641 and either EDFI 642, EDTL 653, or EDTL 699.

Reading Endorsement Program

Five graduate courses in reading (EDTL 520 or 620, 621, 626, either 661, 662, or 663, and either 664, 665, or 666) plus a teaching license and a passing score on the NTE reading specialty test are required for the Reading Teacher endorsement which is attached to the age level of the teaching license. The courses must be taken in sequence, although EDTL 520 and 621 may be taken concurrently. Usually, this program is for licensure purposes only. However, the courses may be applied to an M.Ed. degree in reading if the student has obtained regular admission to the Graduate College before completion of the third reading course.

Teaching and Learning Courses for Graduates

EDTL 520. Developmental Reading in the Content Area (3). Orients the early childhood and middle childhood classroom teacher to the developmental reading process as it applies to the various content areas. Topics include assessment and evaluation, vocabulary, word recognition, comprehension, study skills, and writing. Prerequisite: EDFI 302, content methods course, or consent of instructor.

EDTL 529. Teaching Foreign Language Skills, K-12 (3) Spring. 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: EDTL 373. C/F hours: 30.

EDTL 586. Workshop in EDTL (1-4). Study of a particular topic in an intensive format. Topics vary.

EDTL 610. Advanced Language Arts Instruction (3) Fall. Survey of current research and theory on teaching/learning the language arts from preschool through grade 8. Critical examination of strategies for developing and assessing language

abilities using integrated and holistic perspectives. Development of reflective abilities for decision making in contemporary, multicultural classrooms through classroom and library research.

EDTL 611. The Curriculum (3). 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.

EDTL 616. Curriculum and Instruction in Early Childhood Education (3) On demand. Study of early childhood curricula and instructional activities. Analysis and evaluation of strategies.

EDTL 620. Adolescent/Young Adult Literacy (3) Fall, Summer. Investigation of literacy instruction, materials, and programs for adolescents/young adults.

EDTL 621. Literacy: Theories and Applications (3) Fall, Summer. Identification of major areas of concern in literacy development; alternative solutions; psychological, sociological, and historical point of view.

EDTL 623. Classroom Literacy Assessment (3) Fall, Summer. Techniques of assessing literacy in the classroom and resource settings. Assessment experiences including the use of appropriate informal and formal instruments and developing classroom and school-based assessment reports.

EDTL 624. Clinical Literacy Assessment (3) Fall. Techniques of assessing literacy in clinical settings. Assessment experiences with emphasis on using appropriate formal instruments in order to develop clinical reports.

EDTL 626. Role of Phonics and Word Recognition in Reading and Instruction (3) Spring, Summer. Course focuses on phonics instruction and other word recognition strategies implemented in reading instruction. Students will study theories and applications of phonics instruction as well as other word recognition strategies.

EDTL 629. Leadership in Reading and Communication Skills (3) On demand. 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.

EDTL 631. Survey of Computers in Education (3) On demand. Survey of computers in education with hands-on experience. Introduction to word processing, data bases, computer assisted instruction, the Internet, and e-mail. Methods of incorporating the computer in various subject matter areas. Introduction to pedagogical issues regarding classroom technology.

EDTL 632. Technology Planning in the Schools (3). On demand. Introduction to creating, implementing, and evaluating district technology plans. Consideration of curriculum, instruction, hardware, software, wiring, personnel, training, and funding issues. Concepts and skills for configuring computer systems and local area networks; relationship of local area networks to wide area networks; building and district wiring issues.

EDTL 633. Hypermedia for Educators I (3). On demand. Introduction to Hypermedia including the creation of Hypermedia-based materials for both presentation purposes and student interactive use. Introduction to instructional design principles. Prerequisite: EDTL 631.

EDTL 634. Hypermedia for Educators II (3). On demand. Continuation of Hypermedia I including in-depth coverage of scripting, use of digital cameras, camcorders, and videodisks in creating multimedia materials, and further development and application of instructional design principles. Prerequisite: EDTL 633.

EDTL 635. Technology, Problem Solving, and the Curriculum (1-3). On demand. Investigation of technology as a means to teach problem solving in the curriculum. Coverage of Logo and extensions of Logo as well as other software to develop problem-solving skills. Emphasis on a constructivist approach to using technology to develop students' problem-solving abilities. Prerequisite: EDTL 633.

EDTL 636. Networks for Learning (3). On demand. Intensive investi-

gation and experiences with tools to access, and resources available on, the Internet. Creation of Web pages. Applications across the curriculum. Investigation of relevant issues regarding privacy, censorship, commercialism and proprietary rights. Prerequisite: EDTL 631.

EDTL 637. Distance Learning and Education (3). On demand. Introduction to the theory and practice of distance education. Experience with teaching in a distance learning environment. Comparison of distance learning to other forms of education.

EDTL 638. Seminar on Classroom Technology and Learning (3). On demand. Investigation of relevant topics and readings in technology and education. Preparation and presentation of a piece of research in technology and education. Prerequisites: EDTL 633, EDFI 641, EDFI 642, and an additional 6 semester hours of semester hours in classroom technology or other approved technology-related courses.

EDTL 639. Special Topics in Classroom Technology (3). On demand. Consideration of current topics in classroom technology, for example: classroom technology and science education, equity and classroom technology, classroom technology and adaptive devices, and constructivism and classroom technology. Content will vary by offering. May be repeated for credit.

EDTL 640. Methods of Teaching Writing, K-6 (3) Spring. Examination of research leading to methods for teaching written expression. Includes all aspects of writing, from prewriting through conferencing techniques, to evaluation.

EDTL 641. Advanced Methods in Elementary School Mathematics (3) Fall, Summer. A systematic examination of research, trends, and issues affecting a contemporary program of elementary school mathematics. Attention is focused on theories, methods, objectives, and materials as applied to individualized diagnostic and prescriptive instruction.

EDTL 642. Advanced Methods in Elementary School Science (3) Spring, Summer. Theories, methods, objectives, and materials for teaching

science concepts and processes in elementary and middle schools. Development of teaching aids and practices.

EDTL 643. Advanced Methods in Elementary School Social Studies (3) Fall, Summer. Designed to explore current trends, developments, and practices in social studies as related to the elementary curriculum. Emphasis will be placed on the integration of social studies with other content areas as well as techniques to develop a specific elementary social studies program for grades K-8.

EDTL 645. 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 problems confronting science teachers in classroom and laboratory.

EDTL 646. Seminar in Teaching Secondary School Mathematics (3) On demand. Current research, recommendations, and materials pertaining to teaching secondary school mathematics.

EDTL 647. Inquiry in Secondary School Social Studies (3) On demand. Emphasizes 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 or unit plan required.

EDTL 648. Theory and Practice in Elementary School (3) Spring, Summer. Current theories and programs in elementary education and relationship to and effect on public elementary schools. Recommended after EDTL 611.

EDTL 649. Theory and Practice in Secondary School (3) Fall, 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: EDTL 611, EDFI 673, or equivalents.

EDTL 650. 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. Prerequisite: teaching experience and certification or consent of instructor.

EDTL 653. Qualitative Approaches to Classroom Inquiry (3) Spring, Summer. Introduction to qualitative methods focusing on naturalistic inquiry, ethnographic methodologies, and interpretive research to be used in classroom research.

EDTL 661. Early Childhood Literacy Assessment and Intervention (3) Fall, Summer. Techniques of assessing literacy and providing intervention strategies and support services for early childhood students in both the classroom and resource setting. Experiences include the use of appropriate informal and formal instruments as well as designing/developing appropriate intervention and support services.

EDTL 662. Middle Childhood Literacy Assessment and Intervention (3) Fall, Summer. Techniques of assessing literacy and providing intervention strategies and support services for middle childhood students in both the classroom and resource setting. Experiences include the use of appropriate informal and formal instruments as well as designing/developing appropriate intervention and support services.

EDTL 663. Adolescent/Young Adult Assessment and Intervention (3) Fall, Summer. Techniques of assessing literacy and providing intervention strategies and support services for adolescent/young adult students in both the classroom and resource setting. Experiences include the use of appropriate informal and formal instruments as well as designing/developing appropriate intervention and support services.

EDTL 664. Practicum in Early Childhood Literacy Intervention (3) Spring, Summer. Techniques of teaching and providing literacy intervention for atypical readers in early childhood classrooms and resource settings. Prerequisites: EDTL 621 and 661.

EDTL 665. Practicum in Middle Childhood Literacy Intervention (3) Spring, Summer. Techniques of

teaching and providing literacy intervention for atypical readers in middle childhood classrooms and resource settings. Prerequisites: EDTL 621 and 662.

EDTL 666. Practicum in Adolescent/Young Adult Literacy Intervention (3) Spring, Summer. Techniques of teaching and providing literacy intervention for atypical readers in adolescent/young adult classrooms and resource settings. Prerequisites: EDTL 621 and 663.

EDTL 670. 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 advisor if graduate program credit desired or at discretion of student for recertification or for personal growth.

EDTL 680. Graduate Seminar in Curriculum and Instruction (1-3) On demand. Selected topics within the discipline. Content varies from one year or semester to next. Must have approval of graduate coordinator if graduate program credit is desired or at discretion of student for recertification or for personal growth.

EDTL 684. 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.

EDTL 689. Practicum in Curriculum and Instruction (1-6) On demand. Supervised experiences within a setting of student's specialty. Must be approved by instructor prior to registration. Graded S/U.

EDTL 690. Directed Research in Teaching Curriculum and Instruction at Postsecondary Level (1-6) On demand. Must have approval of student's advisor if graduate program credit desired or may be taken at discretion of student for recertification or personal growth.

EDTL 694. Workshop in Professional Development (1-3). Topics vary. May be taken at discretion of student for personal growth. May not be taken as part of a degree program.

EDTL 695. Workshop in Cur-

riculum and Instruction (1-4) On demand. Study, readings, and development of materials related to needs of practitioner. Topics vary.

EDTL 699. Thesis Research (1-12) On demand. Enrollment in excess of four hours acceptable for Plan I master's degree but not more than six hours creditable toward degree. Graded S/U.

EDTL 710. Curriculum and Instructional Design (3) Spring, Summer. An analysis of curriculum and instructional systems, structures, and designs. Historical and philosophical bases for contemporary curriculum and instructional innovations and practices will be examined. Representative models will be presented and discussed to facilitate the creation of student-generated designs.

EDTL 711. Advanced Theories in Curriculum and Evaluation (3) On demand. Paradigms, models, and modes of inquiry related to theory in curriculum and evaluation; includes term paper demonstrating substantial scholarship. Prerequisites: EDTL 648 or 649, EDTL 710, and consent of instructor.

EDTL 721. Investigations in Literacy (3) Fall. A comprehensive study on an individual basis of the research and descriptive literature on assigned topics in literacy and oracy.

EDTL 722. Advanced Seminar in Literacy (3) Spring, Summer. Investigations and research on topics related to literacy acquisition and development including reading and writing. Specific seminar topics will vary as will the age/grade level emphasis. May be repeated to 12 hours.

EDTL 724. 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 language dysfunction together with related areas. Prerequisites: EDTL 520 or 620, 621, 623, and 625; or consent of instructor.

EDTL 725. 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: EDTL 724 or consent of instructor.

EDTL 780. Advanced Seminar in Educational Curriculum and Instruction (1-3) On demand.

Advanced topics within the discipline. May be repeated on approval of graduate coordinator. Prerequisite: consent of instructor.

Business Education Courses for Graduates

BUSE 541. Consumer Economics in the Schools (3) On demand. Need for consumer economics, organization and integration of consumer economics in school programs, consumer and business background information.

BUSE 555. Administrative Management (3) Fall, Spring. 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 563. Teaching and Learning Strategies for Adults (3) Fall. Identification of adult needs; curriculum, instruction, and assessment for adults; instructional programs for adults. C/F hours: 8.

BUSE 564. Teaching and Learning in Marketing Education (3) Fall. The teaching and learning process as it relates to marketing education including curriculum, instruction, integration of academic and marketing education, assessment, student organizations, and career development for learners ages eight and beyond and grades four and beyond. C/F hours: 10.

BUSE 565. Development and Administration of Workforce Education (3) Spring. Workforce education as sponsored by federal, state, and local legislation; new and emerging trends and initiatives such as national and state workforce education strategic plans, school-to-work, tech prep, and career pathways.

BUSE 567. Teaching and Learning in Business Education (3) Fall. The teaching and learning process as it relates to business education including curriculum, instruction, integration of academic

and business education, assessment, student organizations, and career development for learners ages eight and beyond and grades four and beyond. C/F hours: 10.

BUSE 569. School and Work-based Teaching and Learning (3) Spring. Managing and facilitating the teaching and learning process using school-based and work-based instructional and assessment strategies. C/F hours: 10.

BUSE 583. Topics in Business or Marketing Education (1-2) Fall, Spring. 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.

BUSE 586. Workshop in Business or Marketing Education (1-4). Study of a particular topic in an intensive format. Topics vary.

BUSE 601. Foundations of Business Education (3) Summer. Principles of business and marketing education; historical development, evolving philosophy, and pertinent research.

BUSE 602. Curriculum Development in Business Education (3) Summer. Curriculum development in business and marketing education in public schools. Integration of basic business, office systems, secretarial administration, marketing education, and vocational office education into the curriculum.

BUSE 603. Research in Business Education (3) Summer. Components of research methodology; written research proposal in area of interest.

BUSE 605. 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 628. Computers and Business Education (3) On demand. Business computer applications and their growing impact on secondary school programs in business and marketing education, computer concepts, software, development of

instructional materials for software evaluation.

BUSE 653. Procedures for Teaching Business Subjects (3) Spring. Procedures and trends in teaching business and marketing education evolving from research.

BUSE 662. Supervision in Vocational Education (3) Summer. Principles of supervision as they apply to business, marketing, and vocational education.

BUSE 680. Seminar in Marketing Education (3) On demand. Problems and issues in marketing education through intensive investigation of research materials.

BUSE 687. Independent Study in Business or Marketing Education (1-4). Selected problems and readings. Proposed program of study must be approved by instructor prior to registration. Graded S/U.

BUSE 690. Directed Research (1-4) On demand. Supervised independent research on delimited topic within discipline. Generation of new knowledge developed through research projects. Proposal for directed research must be approved by instructor prior to registration.

BUSE 694. Workshop in Business or Marketing Education (1-4) On demand. Study, readings, activities, and development of materials related to needs of practitioner.

BUSE 697. Internship, Field Placement, or Practicum in Business or Marketing 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. Graded S/U.

BUSE 699. Thesis Research (1-12). Credit for thesis study. Enrollment in excess of six hours acceptable for Plan I master's degree, but no more than six hours may apply toward degree. Minimum acceptable total for degree is three hours. Graded S/U.

BUSE 780. Seminar in Business Education (1-4) On demand. Systematic study of advanced topics within discipline. May be repeated upon approval of graduate coordinator. Prerequisite: consent of instructor.

English

English

Master of Arts

Master of Fine Arts

Doctor of Philosophy

Thomas Wymer, Chair
Sue Carter, Graduate Coordinator
Wendell Mayo, Director - Creative Writing
Richard Gebhardt, Director - Rhetoric
Shirley Ostler, Director - Teaching English as a Second Language
William O. Coggin, Director - Technical Communication
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Graduate Faculty

Professors - Ellen Berry, Ph.D.; Alice Calderonello, Ph.D.; William Coggin, Ph.D.; Bruce L. Edwards, Ph.D.; Richard Gebhardt, Ph.D.; William Grant, Ph.D.; Thomas Klein, Ph.D.; Vivian Patraka, Ph.D.; Larry Smith, Ph.D.; Philip Terrie, Ph.D.; Thomas Wymer, Ph.D.

Associate Professors - Khani Begum, Ph.D.; Sharona Ben-Tov, Ph.D.; Kristine Blair, Ph.D.; Sue Carter, Ph.D.; Allan Emery, Ph.D.; Gary Heba, Ph.D.; Daniel Madigan, D.A.; Virginia Martin, Ph.D.; Wendell Mayo, Ph.D.; Simon Morgan-Russell, Ph.D.

Assistant Professors - Deborah Alvarez, Ph.D.; Piya Pal Lapinski, Ph.D.; Donna Nelson-Beene, Ph.D.; Shirley E. Ostler, Ph.D.; Valerie Rohy, Ph.D.

The **Department of English** offers programs leading to the degrees of **Master of Arts**, **Master of Fine Arts**, and **Doctor of Philosophy**. Specializations available in the Master of Arts program include literature, technical communication, rhetoric and writing, and teaching English as a second language. The Master of Fine Arts in creative writing program offers the specializations of poetry and fiction. For more information, see "Master of Fine Arts" in the Degree Programs section of this catalog.

The Master of Arts-Plan I program is a thesis option designed primarily for students expecting to

pursue a Ph.D. degree. The Master of Arts-Plan II program is a flexible non-thesis option in which individuals may design their own professional or personal enrichment programs. The M.A.-technical communication program is designed for students with interests in written communication, particularly for science, technology, business, and industry. The M.A.-teaching English as a second language program combines the study of linguistic theory and application with training in methods of teaching English as a second language. It also offers a dual master's with German.

The central objective of the doctoral program in English is to recruit and equip women and men with a broad range of skills whose interests in English studies move them to seek careers as teacher-scholars at a variety of institutions in higher education. To that end, the doctoral program in English seeks to recruit doctoral students, including those with literature backgrounds and interests, for our nationally-known rhetoric and composition program. This program emphasizes rhetoric and composition as its core curriculum and provides students with a thoroughgoing foundation in rhetorical theory and history, composition pedagogy, research methods, electronic-mediated communication, and scholarly publishing. It also allows students to augment these core requirements with additional courses in composition studies or with course work in other areas. For instance, students are encouraged to develop a four-course concentration in another area within the department (e.g., literature, critical theory, scientific and technical communication, creative writing, or TESL) or in another of the University's interdisciplinary programs.

Prerequisites to Graduate Work

Admission to the M.F.A.-creative writing program is based primarily on the evaluation of sample manuscripts submitted to the creative writing program at the time of application. Prerequisites for the M.A.-technical writing program include excellent undergraduate preparation in writing and an undergraduate foundation for graduate work in a cognate area.

Usually, students begin the Ph.D.

program after completing a master's degree; well-prepared and motivated applicants with only baccalaureate degrees may apply for admission into a "continuing" Ph.D. program which leads directly to the Ph.D. without the intermediate step of the M.A. Such candidates do not prepare theses but qualify instead by a portfolio assessment mid-way through the second year of the program.

Admission Procedure

Applicants seeking admission to the graduate programs in English should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants to all programs must submit a 10-15 page research writing sample. Applicants also seeking funding must complete a separate assistantship application form available from the Graduate Secretary of the Department of English. Funding is increasingly competitive and applicants should apply as early as possible to insure their consideration. No funding applications will be considered after the annual February 1 deadline for fall admission.

The GRE Literature in English Subject Test is not required. Applicants to the M.F.A. program who wish to specialize in fiction must submit a portfolio of 50 pages. Those planning to specialize in poetry must submit a portfolio of 30 pages. Portfolios should be sent to: Director, M.F.A. Program, Department of English, BGSU, Bowling Green, Ohio 43403, before February 1 prior to the fall semester students wish to enter the program.

Degree Requirements

Master of Arts

Plan I: Candidates must complete a minimum of 33 semester hours of graduate credit including at least 24 hours in English course work (excluding ENG 602). Requirements include: (1) ENG 607 and ENG 615 or equivalent; (2) three or more 600- or 700-level English courses; (3) for literature specialists, five courses chosen from chronologically-arranged groups to ensure a broad background in English and American literature; (4) an approved thesis (three to six hours of ENG 699) and an oral examination given by the candidate's thesis committee based on the thesis; and

English

(5) ENG 602, for graduate assistants.

Plan II: Candidates must complete a minimum of 33 semester hours of graduate credit including 21 hours of English course work (excluding ENG 602). Requirements include: (1) ENG 607 and ENG 615 or equivalent; and, for anyone preparing to teach, ENG 620; (2) a professional concentration of four courses, with no more than two in English; (3) completion of one of two examination procedures: (a) a comprehensive examination in either literature or rhetoric and writing based upon a departmentally-approved core reading list; or (b) a portfolio of work that includes an extensive annotated bibliography in the field of concentration and representative seminar papers; and (4) ENG 602, for graduate assistants.

Scientific and Technical Communication: Candidates must complete 36 hours of graduate credit. Requirements include: (1) 12 hours in a cognate area; (2) ENG 640; ENG 641; ENG 642; ENG 689; ENG 696; TECH 633; and a computer science course approved by the technical writing director; (3) an internship (ENG 689) in an appropriate business; (4) collection of the student's written work in a portfolio; (5) an oral examination to be taken during the student's last semester of course work. The examination committee must include the director of technical writing, the graduate coordinator, and at least one faculty member from the student's cognate area; and (6) ENG 602, for graduate assistants.

The English graduate coordinator and director of technical writing may require a student to take extra courses to prepare for a career in business, science, or technology.

Teaching English as a Second Language: Candidates must complete 32 to 38 semester hours of graduate credit (excluding 602). Requirements include: (1) three to nine hours in an internship teaching English as a second language (ENG 688); (2) ENG 610; ENG 611; ENG 612; ENG 615; ENG 620; ENG 697; ENG 716; and ENG 718; (3) a written comprehensive examination, prepared by a departmental examination committee and based primarily upon a reading list of books and articles relevant to the

field; and (4) ENG 602, for graduate assistants.

Master of Fine Arts

The two-year M.F.A. program consists of a minimum of 40 semester hours of graduate credit. Requirements include: (1) 16 hours of ENG 632, Graduate Writers' Workshop, in the area of specialization; (2) three hours of techniques in the area of specialization; (3) six hours of thesis credit; (4) three hours of desktop publishing; (5) three hours of advanced fiction or poetry workshop; and (5) nine hours in either recommended courses or electives.

Total hour requirements may be reduced for outstanding students who are able to apply credit from previous graduate work. However, transfer of hours must be approved prior to enrollment. In all cases, students must take at least 30 hours in residence with a minimum of one workshop per semester in the area of specialization. All students must complete 30 semester hours of graduate work after being accepted into the M.F.A. program in addition to any work done in other programs at the University. For more information, see "Master of Fine Arts" in the Degree Programs section of this catalog.

Doctor of Philosophy

Students must complete a total of 90 semester hours of graduate credit, of which a maximum of 30 hours may be transferred from a master's degree in English. General requirements for the Ph.D. include: (1) a minimum of 33 hours of graduate course work beyond the M.A., of which at least 24 hours must be in 600- and 700-level courses; (2) satisfactory completion of preliminary examinations, including the oral examination; (3) an approved dissertation graduate lecture, dissertation text, and dissertation defense. A minimum of 16 hours of ENG 799, Dissertation Research, must be accumulated in the candidate's degree program. A maximum of 21 hours of ENG 799 may count toward the 90 hours required for graduation; and (4) demonstrated advanced competence in a foreign language, computer language, or American Sign Language, or successful completion of ENG 750.

Candidacy for the Ph.D. begins

after successful completion of the preliminary examinations and approval of the student's dissertation plan following the required graduate lecture. Candidacy is completed when the dissertation is approved by the student's dissertation committee, the department, and the Graduate College. Details regarding the preliminary examinations and the dissertation process are available from the department.

Courses for Graduates

ENG 500. English as a Second Language - Sentence and Theme Development (3). For graduate students whose language is not English. Provides grammar review and develops fundamental academic writing skills. Admission by placement. Graded S/U.

ENG 501. English as a Second Language - Academic Composition I (3). For graduate students whose language is not English. Provides instruction in academic writing skills at the intermediate level. Admission by placement or advancement from English 500. Graded S/U.

ENG 502. English as a Second Language - Study Skills and Reading for Research (1). For graduate students whose first language is not English. Provides instruction in basic academic reading, in research, and in study skills. Admission by placement, instructor approval, or instructor recommendation. Graded S/U.

ENG 503. English as a Second Language - Intermediate Listening and Speaking (3). For students whose language is not English. Provides oral and aural skills at the intermediate level. Admission open to all ESL graduate students, except those required to take CDIS. Undergraduates may register as independent study. Requires instructor approval. May be repeated. Graded S/U.

ENG 504. English for International Graduate Assistants (3). For first-year graduate assistants whose first language is not English. Introduces GAs to aural and oral techniques that facilitate teaching content material, interacting effectively with American undergraduates, and meeting departmental administrative demands. Admission by placement or

English

instructor approval. Graded S/U.

ENG 506. English as a Second Language - Academic Composition II (3). For graduate students whose language is not English. Provides academic writing skills at the advanced level. Admission by placement or advancement from English 501. Graded S/U.

ENG 507. English as a Second Language - Advanced Reading (3). For graduate students whose language is not English. Provides instruction in advanced academic reading skills. Admission by placement or advancement from English 502. Graded S/U.

ENG 508. English as a Second Language - Advanced Listening and Speaking (3). For students whose language is not English. Provides oral and aural skills at the advanced level. Admission open to all ESL graduate students. Undergraduates may register as independent study. Requires instructor approval. May be repeated. Graded S/U.

ENG 510. Teaching English as a Second Language (3). Modern techniques in teaching English as a second language at varied proficiency levels. Prerequisites: ENG 615 or equivalent course work in linguistics or in foreign language methodology or education, and consent of instructor.

ENG 515. 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 516. History of English Language (3) Alternate years. Changes in sounds, grammar, usage, and meaning from Old English to present. Prerequisite or parallel: ENG 380.

ENG 531. Directed Writing (1-3). Individual or group projects in creative writing, under supervision of specific faculty member. Prerequisite: consent of director of M.F.A. program.

ENG 552. Studies in Children's Literature (3) Alternate years. Problems in children's literature; history, criticism, trends, individual authors, types. Not open to students with credit for L&EM 442. Prerequisite: ENG 342 or consent of instruc-

tor.

ENG 580. Seminar in British or American Literature (3) On demand. Intensive study of major authors, literary schools, genres, or themes.

ENG 582/583. Topics in Rhetoric and Writing (3). Systematic study of current topics in the field of rhetoric and writing. ENG 582 for a grade; ENG 583 graded S/U.

ENG 586. Workshop in English (1-4) Fall, Spring. Study of a particular topic in an intensive format. Topics vary.

ENG 589. Internship in English Studies (1-3). Supervised experience in setting relating to specializations in English studies, including the teaching of writing, the teaching of literature, and other verbal and oral language skills. Graded S/U.

ENG 601. Introduction to English Studies (3). Comprehensive introduction to the field of English and the professional study of literature, rhetoric, and language, with special attention to and practice in using the reference and research tools available to the contemporary teacher, researcher, and theorist.

ENG 602. Composition Instructors' Workshop (3) Fall, Spring. Classroom experience, observation visitation, preparation of teaching materials evaluation, reading in teaching of writing. Inservice training required of graduate assistants in English prior to and concurrent with teaching ENG 110, ENG 111, and ENG 112. Continues through two consecutive semesters. Graded S/U only.

ENG 603. 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 consent of coordinator, General Studies Writing. Graded S/U.

ENG 604. 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 stu-

dents in all disciplines; assignments adjusted accordingly. Graded S/U.

ENG 607. Theory and Methods of Literary Criticism (3). Introduction to some of the major modern theories of literary criticism: historicism, formalism, reader-response, structuralism, poststructuralist, etc. Application of theory to selected works.

ENG 609. Teaching of Literature (3). Survey of the ways contemporary literary theory informs and can be applied to the teaching of literature. Relevant to the concerns of junior-high, secondary, and college teachers of literature.

ENG 610. Theories in TESL (3) Alternate years. Theoretical concepts related to the nature of language and language learning; emphasis upon second language acquisition and use. Theories and approaches underlying methodology for teaching all skills at varied proficiency levels.

ENG 611. Resources and Research in TESL (3) Alternate years. Resources and current research issues. Development of skills required to critique the validation of research designs.

ENG 612. Methods in TESL (3). Applications of approaches, methods, and techniques through lesson planning, demonstrations, observations, and evaluations; principles of testing. Must be taken concurrently with ENG 697.

ENG 615. Modern English Linguistics (3). Phonology, morphology, syntax, and dialectology of current American and British English.

ENG 620. 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 630. Technique of Poetry (3). Imagery, rhythm, and symbolism.

ENG 631. Technique of Fiction (3). Fictional technique in novel and short story; character development, plot, setting, mood, tone, and diction.

ENG 632. Graduate Writers' Workshop (4). Directed individual projects with group discussion, in fiction, poetry, or nonfiction. Prereq-

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quisites: advance submission of creative work and consent of instructor. May be repeated with instructor's consent.

ENG 633. Creative Writing and Desktop Publishing (3). Course offered in conjunction with Creative Writing. Students will learn desktop publishing through editing, design, and production of the Mid-American Review. Designed for but not limited to creative writing.

ENG 634. 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 635. 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 636. Creative Writing Administration (1-3). Study and hands-on experience in the direction and operation of a creative writing program, including budget, curriculum, fundraising, visiting writers series, advising, and other related matters. Open to M.F.A. students and to others by permission of instructor. May be taken once in summer and once in academic year to a maximum of 4 credit hours. Graded S/U.

ENG 637. Teaching Creative Writing to Creative Writers (1). For graduate assistants teaching undergraduate creative writing classes. Introduction to creative writing pedagogy. Course offered each semester. Required of all graduate students teaching in the undergraduate creative writing curriculum. Graded S/U.

ENG 640. Technical Writing (3). Practical application of technical writing in industry, business, and the sciences. Uses workshop approach.

ENG 641. Resources and Research in Technical Writing (3). Resources and current research issues in the field of technical writing. Development of skills, awareness of reference and research tools relevant to technical communication.

ENG 642. Technical Editing (3). Practical application of technical editing in industry, business, and the sciences. Uses workshop approach.

ENG 649. Accounting Communications (3) Fall. This course provides students in the Master of Accountancy program theory of and practice in oral and written communication. The course is based on communication situations involving practicing accountants. Enrollment limited to 15. Prerequisite: acceptance into Master of Accountancy program and consent of instructor.

ENG 675. Seminar in American Culture 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 675 is also listed in this catalog as ACS 675. During a given semester, a student may receive credit for only one of these courses.

ENG 680. Seminar in English Studies (3). Systematic study of literary genres or topics (poetry, fiction, drama, comparative literature), modes of literary or rhetorical inquiry, or intensive study of special literary, rhetorical, or creative writing topics. May be repeated if topics are different.

ENG 682. Topics in English Studies (3). Individual or group study of some phase of literature, criticism, rhetoric and writing, or creative writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate coordinator. Master's level credit.

ENG 684. Readings in English (1-3). Individual or group study of some phase of literature or writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate coordinator. Master's level credit.

ENG 685. Directed Readings in English Studies (1-3). Instructor supervised readings in some phase of literature, criticism, rhetoric and writing, or creative writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate coordinator. Master's level credit. Graded S/U.

ENG 689. Internship in Technical Writing/TESL/English Studies (1-9). Supervised professional experience within an occupational or pedagogical setting related to the

student's area of academic specialization, either technical writing, teaching English as a second language, or English studies (literature, rhetoric, creative writing). May be repeated. ENG 688 for a grade; ENG 689 graded S/U.

ENG 690/691. Directed Research in English Studies (3). Individual or group research project in specialized topic in literature, rhetoric and writing, or creative writing supervised by instructor. Prerequisite: consent of instructor; approval of graduate coordinator. ENG 690 for a grade; ENG 691 graded S/U.

ENG 693. Research Group in Literature/Rhetoric and Writing (3). Supervised group observation and ethnographic research in the teaching of literature or writing skills in the General Studies Writing program, the General Studies Literature program, or other university settings. Prerequisite: consent of instructor and graduate coordinator approval. Master's credit only; S/U grading only.

ENG 694. Workshop in English Studies (1-4) On demand. Workshop on current topics and issues within discipline; topics vary from semester to semester.

ENG 696. Supervised Practicum in Technical Writing (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 640.

ENG 697. Practicum in TESL (3). Observation of teaching ESL classes, a complement to and to be taken in conjunction with Methods (ENG 612) and other professional development, such as testing, administration, international student advisement.

ENG 698. Readings for Comprehensive Examination (1-6). Individual preparation for M.A. examinations in literature, rhetoric and writing, or TESL as appropriate. No credit toward degree. Graded S/U.

ENG 699. Thesis Research (1-12). Credit for thesis study. Enrollment in excess of six hours acceptable for Plan I master's degree, but no

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more than six hours creditable toward degree. Graded S/U.

ENG 701. Bibliography and Research Methods (3). Scholarly and critical forms of study relevant to professional work in literature: analytical bibliography and editing, problems in critical research.

ENG 702. Advanced Bibliography and Editing (3) On demand. Theory and techniques of analytical bibliography and textual criticism. Prerequisite: ENG 701.

ENG 706. 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 707. Contemporary Literary Theory (3). Development of contemporary literary theory from modern period to present. Schools and approaches of contemporary theory criticism; e.g., psychoanalytical, neo-Marxist, feminist, postmodernist, and ethnopoetic.

ENG 715. Studies in Linguistics (3). Theories and applications of linguistics to studies in languages, literature, and related fields or disciplines.

ENG 716. Language Variation (3) Alternate years. Effects of culture on language; principles and methods of dialect studies.

ENG 717. Applied Syntax (3) Alternate years. Adaptation of grammatical models and analysis to the TESL pedagogical context: analysis of student errors in spoken and written English and formulation of strategies for correction. Some contrastive analysis of English and other languages to isolate areas of potential difficulty with English grammar. Prerequisite: consent of instructor.

ENG 718. Applied Phonology (3) Alternate years. Articulatory phonetics; phonological rules; some contrastive analysis of English and other languages to isolate areas of potential difficulty with English phonology; practice with transcription. Prerequisite: consent of instructor.

ENG 722. The History of Rhetoric and Written Discourse (3). Survey of major figures/developments in the history of rhetoric with special

reference to their relevance to written discourse. The course will include topics such as attitudes toward and development of written literacy, contributions of noncanonical rhetoricians, and institutionalization of writing instruction. Special attention will be given to methods of historical research and historiography.

ENG 724. The Rhetoric of Written Discourse (3). Survey of rhetorical theory about writing from antiquity to present. Topics include theories of invention, arrangement, and style; kinds and purposes of discourse; the effects of literacy; and the epistemology of writing and reading processes.

ENG 726. Research in Rhetoric and Writing (3). Research methods and the study of the social, cognitive, behavioral, and physiological processes of writing. Topics include evaluation of writing, the composing process, computers and literacy, dialect and writing, grammar and writing.

ENG 728. Computer-Mediated Writing Theory and Practice (3). A survey of research in computers and writing theory and pedagogy over the last 25 years. Topics include computers and the composing process, multimedia literacy, networked communication in the classroom, hypertext theory and practice, and the politics of electronic communication.

ENG 729. Research and Publication in Rhetoric and Writing (3). Designed to help students initiate, revise, and prepare scholarly works for publication and professional careers. Students will produce a portfolio of work appropriate to their specialty.

ENG 750. Old English Language and Literature (3) Alternate years, On demand. Old English poetry and prose read in Old English and modern forms, including Beowulf. Satisfies department language requirement.

ENG 751. Middle English Literature (3). Chaucer's major works read in Middle English along with current criticism. In alternate years or on demand: Langland, Pearl Poet, Gower, and other 14th-century poetry.

ENG 752. Renaissance Poetry

and Prose (3). Poetry of major figures (such as Sidney or Spenser), or 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 754. Tudor and Stuart Drama (3). Dramatic forms and traditions from liturgical drama, to the plays of Kyd, Greene, and Marlow, to the plays of such dramatists as Chapman, Jonson, and Webster who wrote before the closing of the theatres.

ENG 755. Studies in Shakespeare (3). Poetry or plays and criticism; focus on specific period, type, genre, or problem.

ENG 756. 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). May be repeated if topic different.

ENG 757. 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. May be repeated if topic different.

ENG 758. Restoration and 18th-Century Drama (3). Significant forms, including tragedy, comedy, heroic plays, sentimentalism.

ENG 759. 18th-Century Novel (3) Alternate years. Rise of novel, major authors; minor authors who made important contributions to development of genre.

ENG 760. 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). May be repeated once if topic different.

ENG 761. 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. May be repeated if topic different.

ENG 762. Tennyson and Browning/Victorian Poetry and Prose (3).

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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. May be repeated once if topic different.

ENG 763. 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. May be repeated if topic different.

ENG 764. 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. May be repeated if topic different.

ENG 765. Modern British Drama (3) Alternate years. Shaw and important dramatists of period. Backgrounds and early development of modern British drama.

ENG 766. 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, Albee.

ENG 767. 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 768. 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 769. Studies in Postcolonial Literature (3). Literature written in English by writers emanating from countries other than Britain and the U.S. during and since the postcolonial period of modern

world history. May be repeated if topic is different.

ENG 770. American Literature to 1800 (3). Two or more important figures. May be repeated once if topics differ.

ENG 771. 19th-Century American Prose (3). Two or more important figures. May be repeated once if topics differ.

ENG 772. 19th-Century American Poetry (3). Two or more important figures. May be repeated once if topics differ.

ENG 773. Modern American Poetry (3). Two or more important figures. May be repeated once if topics differ.

ENG 774. Modern American Fiction (3). Two or more important figures. May be repeated once if topics differ.

ENG 775. Modern American Drama (3) Alternate years. O'Neill and important dramatists of period such as Odets, Robert Sherwood, Lillian Hellman.

ENG 779. Studies in Ethnic American Literature (3). The study of literature from one or more non-European American cultures: namely, African American, Asian American, Native American, and Latino/a. Incorporates ethnic literary theory, issues, and traditions. May be repeated if topic is different.

ENG 780/781. Seminar in English Studies (3). Systematic study of literary genres or topics (poetry, fiction, drama, comparative literature), modes of literary or rhetorical inquiry, or intensive study of special literary, rhetorical, or creative writing topics. May be repeated if topics are different. ENG 780 for a grade; ENG 781 graded S/U.

ENG 782/783. Topics in English Studies (3). Individual or group study of some phase of literature, criticism, rhetoric and writing, or creative writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate coordinator. Ph.D. level credit. ENG 782 for a grade; ENG 783 graded S/U.

ENG 784/785. Directed Readings in English Studies (1-3). Instructor supervised readings in some phase of literature, criticism,

rhetoric and writing, or creative writing not ordinarily offered in curriculum. Prerequisite: consent of instructor and approval of graduate coordinator. Ph.D. level credit. ENG 784 for a grade; ENG 785 graded S/U.

ENG 788/789. Internship in English Studies (1-6). Supervised professional experience within an educational, disciplinary, or pedagogical setting related to student's area of academic specialization. ENG 788 for a grade; ENG 789 graded S/U.

ENG 790/791. Directed Research in English Studies (3). Individual or group research project in specialized topic in literature, rhetoric and writing, or creative writing supervised by instructor. Prerequisite: consent of instructor and approval of graduate coordinator. ENG 790 for a grade; ENG 791 graded S/U.

ENG 793. Research Group in Literature/Rhetoric and Writing (3). Supervised group observation and ethnographic research in the teaching of literature or writing skills in the General Studies Writing program, the General Studies Literature program, or other university settings. Prerequisite: consent of instructor and graduate coordinator approval. Ph.D. credit only; S/U grading only.

ENG 796/797. Supervised Practicum in Literature/Rhetoric and Writing (3). Directed writing or pedagogical project within a particular area of the field of literature/rhetoric and writing. Prerequisite: consent of supervising instructor and graduate coordinator approval. ENG 796 for a grade; ENG 797 graded S/U.

ENG 798. Readings for Preliminary Examination (1-12). Individual preparation for preliminary examinations in literature, rhetoric and writing, or creative writing as appropriate. Only six hours creditable toward graduation. Graded S/U.

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.

Environmental Health - Ethnic Studies

Environmental Health

Gary Silverman, Director
Room: 223 Health Center
Phone: 419-372-7774

Graduate Faculty

Professor - Gary Silverman,
D.Env.
Associate Professor - Charles Keil,
Ph.D.

Graduate offerings in environmental health are open to all graduate students with appropriate academic backgrounds. Course work in environmental health may be useful to students interested in integrating their area of graduate specialization with study of environmental protection and management. Students should check with the graduate coordinators of their degree programs

to determine whether environmental health courses may count toward their degree requirements. Graduate courses in environmental health are offered on demand, so interested students should inquire at the program office.

Courses for Graduates

ENVH 549. Occupational and Environmental Epidemiology (3) Principles of epidemiological investigation focused on occupational settings. Quantitative analysis of relationship between environmental conditions and human responses.

ENVH 582. Topics in Environmental Health (1-3) Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

ENVH 586. Workshops in Environmental Studies (1-4). Workshops designed for current

topics of concern and issues in environmental studies. May be repeated with clearly different topics.

ENVH 605. Introduction to Environmental Health (3). A survey of the major environmental issues facing global society and their relationship to personal, public, and ecological health. Issues encompass the developing and developed worlds, current conditions and future trends, and all major settings where environmental degradation may be a problem.

ENVH 680. Seminar in Environmental Health (1-4) On demand. Systematic study of selected topics in environmental health. Prerequisite: consent of instructor.

ENVH 691. Directed Research in Environmental Health (1-4) On demand. Supervised independent research on a particular topic. Prerequisite: consent of instructor.

Ethnic Studies Certificate in Ethnic Studies

Michael T. Martin, Chair
A. Rolando Andrade, Graduate
Coordinator
Room: 228 Shatzel Hall
Phone: 419-372-2796

Graduate Faculty

Professor - Michael T. Martin,
Ph.D.
Associate Professors - A. Rolando
Andrade, Ph.D.; Linda Pertusati,
Ph.D.
Assistant Professors - Theresa
Mah, Ph.D.; Eithne Luibhéid, Ph.D.;
Apollos Nwauwa, Ph.D. (History)
Instructor - David Wall, Ph.D.

The **Department of Ethnic Studies** offers a program of study that examines race and ethnicity both in national and global contexts and in relation to gender, class, and sexuality. Courses consider U.S. racial and ethnic minority populations in relation to one another, the dominant order, diasporic populations, and the formation of the U.S. as a global power in an era of globalization. Focusing on processes such as immigration, colonization, transnational migration, and slavery,

courses are comparative, interdisciplinary, and emphasize critical thinking.

A **Graduate Certificate in Ethnic Studies** is offered by the **Department of Ethnic Studies** in the **College of Arts and Sciences**. Within an interdisciplinary/multi-disciplinary framework, the certificate curriculum contributes to societal needs as it addresses issues of racial and ethnic diversity in the workplace, community, nation, and world during a period of profound demographic change. It is designed to provide professional study in an area of increasing importance to practitioners in social, health, and immigration service agencies; law; and K-12 and community college education, among other occupations. The certificate also offers a graduate credential to students pursuing advanced degrees and seeking to broaden their teaching and research competencies in order to enhance their career options and employment prospects.

Students may enroll either in the certificate program or they may complete the certificate in conjunction with a graduate degree at the University. Satisfactory completion of the requirements for the certificate will be noted on the student's transcript as "Graduate Certificate in

Ethnic Studies."

Prerequisites to Graduate Work

Individuals currently enrolled in graduate degree programs or having non-degree status at the University are eligible to apply to the certificate program.

Admission Procedure

Applicants seeking admission to the certificate program should follow the instructions outlined in the "Graduate Admission" section of this Catalog.

In addition to the application required by the Graduate College, applicants to the certificate program must submit: 1) three letters of recommendation, and 2) a personal statement of career goals and reasons for applying to the program.

Certificate Requirements

Students must complete 16 credit hours of approved core and elective courses to obtain the certificate. The core curriculum is comprised of ten credit hours or four courses to ensure foundational knowledge and breadth: ETHN 620, Theories of Race Relations, Ethnicity, and Multiculturalism; ETHN 520, Comparative Perspectives on Race and Ethnicity; ETHN 650, Sexuality, Race, and Nation; and ETHN 686/687, Independent Study in Ethnic Studies.

The remaining six credit hours or

Ethnic Studies - Family and Consumer Sciences

two courses consist of departmental electives (ETHN 505, 525, 540, 560, 673, 680, 682). With the approval of the Ethnic Studies graduate advisor, three elective credit hours may be substituted with a cognate course offered by another program or department at the University. No internship is required for the certificate.

Courses for Graduates

ETHN 505. Qualitative Research Methods (3) On demand. This course is designed to introduce students to qualitative modes of social research commonly found in the field of ethnic studies. The course will concentrate on the data gathering process as well as data analysis.

ETHN 520. Comparative Perspectives on Race and Ethnicity (3) Spring. Examines the historical, structural, political, and everyday basis of ethnic difference and racial/ethnic conflict, and uses a focused case-study approach to compare different systems of race and ethnic relations in the U.S., the Americas, or globally.

ETHN 525. Discourses of Empire and Nation (3) Fall (alternate years), Spring (alternate years).

Examination of the development of ideologies of race, ethnicities, and nations within colonial and postcolonial contexts.

ETHN 540. Women and Globalization (3) Fall. Examines the intensification of globalization as a set of economic and cultural processes impelled by transnational migrations of capital and labor, and the ways in which "Third World" and "racial-ethnic" women form the bottom of this global labor pool within the U.S. and abroad.

ETHN 560. Third World Cinema (3) Fall. Study of the cinematic traditions and film practices in the Third World and among minoritarian film movements with emphasis on anti-colonial and postcolonial political film.

ETHN 620. Theories of Race Relations, Ethnicity, and Multiculturalism (3) Spring. This course provides an advanced introduction to classical theories of race and ethnicity, cultural studies, postcolonial studies, critical race theory, and the politics of multiculturalism. It focuses on questions of racial and ethnic systems of social organization and signification.

ETHN 650. Sexuality, Race, and Nation (3) Spring. Focusing on communities of color, the course analyzes how sexuality discourses and practices have constructed, reinforced, and challenged racial, ethnic, gender, and class inequalities in the U.S. and globally. Materials focus on systemic rape, lynching, selective criminalization, sterilization, scientific discourses, AIDS policies, and border monitoring.

ETHN 673. Seminar in American Culture Studies (3). Interdisciplinary seminar in American culture from an Ethnic Studies perspective. May be repeated.

ETHN 680. Seminar in Ethnic Studies (3). Interdisciplinary seminar to study a theme, problem, or topic in ethnic studies. May be repeated if topic is different.

ETHN 682. Problems/Topics/Issues in Ethnic Studies (3). Study of selected aspect of the field, particular area of concern, or question under consideration.

ETHN 686/687. Independent Study in Ethnic Studies (1-3). Supervised independent study on a topic or problem approved by graduate advisor. ETHN 686 for a grade; ETHN 687 graded S/U.

Family and Consumer Sciences

Master of Family and Consumer Sciences

Thomas R. Chibucos, Director
Room: 206 Johnston Hall
Phone: 419-372-2026

Stephen M. Horowitz, Graduate Coordinator

Room: 212 Eppler Hall
Phone: 419-372-6920

Graduate Faculty

Professors - Thomas Chibucos, Ph.D.; Sally Kilmer, Ph.D.; Molly Laflin, Ph.D.; David Weis, Ph.D.

Associate Professors - Diane Frey, Ph.D.; Jean Hines, Ph.D.; Stephen Horowitz, Ph.D.; M. Sue Houston, Ph.D.; Younghee Kim, Ph.D.; Rebecca Pobocik, Ph.D.; Joy Potthoff, Ed.D.; Julian Williford, Jr., Ph.D.

Assistant Professors - Leona

Collins, Ph.D.; Frances Dumas-Hines, Ph.D.; Jean Gerard, Ph.D.; Jacqueline Guzell, Ph.D.; Kristi Hannan, Ph.D.; Dawn Hentges, Ph.D.; Laura Landry Meyer, Ph.D.; Susan Peet, Ph.D.; Lubomir Popov, Ph.D.

The **School of Family and Consumer Sciences** offers the **Master of Family and Consumer Sciences** (M.F.C.S.) degree. Major fields include: human development and family studies (HDFS) and food and nutrition (F&N).

The HDFS graduate program emphasizes the development of collaborations to serve the needs of children and families. All HDFS students study child and family policy, developmental and family theory, linking research and practices, and partnership building. Students then build a specific focus of study based on professional interest (e.g., child development,

sexuality, family studies, early childhood education). Individually selected internships provide opportunities for students to employ their scholarship and disciplinary education in HDFS in the service of a wide range of child, family, and community issues, e.g., through design and implementation of field research projects.

The Food and Nutrition (F&N) graduate program focuses on two areas: human nutrition sciences; and applied dietetics, which may lead to a comprehensive supervised practicum experience. The latter program focus is the Dietetic Internship/master's degree program. The Dietetic Internship/master's degree program is currently granted developmental accreditation status by the Commission on Accreditation for Dietetics Education of the American Dietetic Association.

Students will be admitted into the Food and Nutrition Dietetic Intern-

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ship/ master's degree program only in the fall of each year. Applications for this program must be completed by February 15 of the year in which students wish to enter the program. The program requires a minimum GPA of 3.0 and completion of the GRE verbal and quantitative tests. In addition, since this program is clinical in nature, an interview may be required as part of the admissions process. Interviews are conducted in early or mid-March, and admission decisions are made by early April.

Students interested in one of the Family and Consumer Sciences content areas may pursue a Master of Education (M.Ed.) in Career and Technology Education through the College of Technology (see "Career and Technology Education" section of this catalog).

Prerequisites to Graduate Work

A bachelor's degree related to one of the two major fields of specialization or in a related professional area, such as business or social sciences, is the preferred foundation for graduate work. Additional course work may be required as a condition of admission should there exist deficiencies in undergraduate course work.

Admission Procedure

Applicants seeking admission to the graduate programs in Family and Consumer Sciences should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Family and Consumer Sciences

The M.F.C.S. degree requires a minimum of 37 semester hours, including three hours each of statistics and research methodology, and six hours of thesis.

Plan I: Candidates under Plan I must complete a formal thesis and pass an oral examination on the thesis.

Family and Consumer Sciences Courses for Graduates

FCS 580/581. Seminar in Family and Consumer Sciences (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. FCS 580 for a grade; FCS 581 graded S/U.

FCS 582. Problems in Family and Consumer Sciences (3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

FCS 584/585. Directed Readings in Family and Consumer Sciences (1-3). Supervised independent readings in a focused area of study. FCS 584 for a grade; FCS 585 graded S/U.

FCS 586/587. Workshop in Family and Consumer Sciences (1-4). Study of a particular topic in an intensive format. FCS 586 for a grade; FCS 587 graded S/U.

FCS 589. Internship in Family and Consumer Sciences (3-6). Supervised practical field application or clinical experience offered on an individual basis. Graded S/U.

FCS 680. Professional Seminar in Family and Consumer Sciences (3) On demand. Examination of theoretical, social, and political issues critical to the discipline of family and consumer sciences.

FCS 681. Seminar in Family and Consumer Sciences (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator. Graded S/U.

FCS 682. Problems in Family and Consumer Sciences (3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

FCS 684/685. Directed Readings in Family and Consumer Sciences (1-3). Supervised independent readings in a focused area of study. FCS 684 for a grade; FCS 685 graded S/U.

FCS 686. Workshop in Family and Consumer Sciences (1-3). Study of a particular topic in an intensive format.

FCS 687. Independent Study (1-3). Supervised study, selected problems and selected readings. Proposed program of study must be developed by student and FCS graduate faculty. May be repeated to six hours with approval of graduate coordinator. Graded S/U.

FCS 689. Internship (3-6). Placement within the student's academic major area to provide opportunities for planning and practicing leadership roles. Placement

must be approved by instructor/supervisor prior to registration and approved by FCS graduate coordinator. Prerequisites: 12 hours of graduate courses. May be repeated but only six hours may count toward degree plan. Graded S/U.

FCS 690/691. Directed Research in Family and Consumer Sciences (1-3). Supervised independent research on delimited topic. Generation of new knowledge as contrasted with private reading course. The proposal for a directed research must be approved by the instructor prior to registration. FCS 690 for a grade; FCS 691 graded S/U.

FCS 692/693. Research Group in Family and Consumer Sciences (1-3). A group research project accomplished in the laboratory of or under the auspices of a designated instructor. FCS 692 for a grade; FCS 693 graded S/U.

FCS 694/695. Workshop in Family and Consumer Sciences (1-4). Workshop on current topics and issues within discipline. May be repeated. FCS 694 for a grade; FCS 695 graded S/U.

FCS 696/697. Supervised Practicum in Family and Consumer Sciences (3-6). Supervised practical field application or clinical experience offered on an individual basis. FCS 696 for a grade; FCS 697 graded S/U.

FCS 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Six hours required for degree. Graded S/U.

FCS 699. Thesis Research (1-12). No more than six hours creditable toward degree. Minimum for degree is also six hours. Graded S/U.

Food and Nutrition Courses for Graduates

F&N 531. Experimental Foods (3) Spring. Experimental methods of quality control and product development. Scientific reasoning applied to the methods of food preparation. Subjective and objective evaluation criteria will be practiced. Two hours of lecture and three hours of lab. Prerequisites: F&N 210, CHEM 306, or consent of instructor. Lab fee.

F&N 532. Advanced Nutrition (3) Spring. Topics in normal nutrition,

Family and Consumer Sciences

nutrient interrelationships, and nutritional assessment. Analysis of current literature and validity of content. Prerequisites: BIOL 332 and CHEM 116, or equivalent.

F&N 534. Diet Therapy (3) Fall. Diseases and dietary modifications they necessitate. Determination of rationale for inclusion or exclusion of specific foods in prescribed diets; clinical dietitian's roles. Two hours of lecture and four hours of clinical experience. Prerequisite: F&N 532. Professional liability insurance required.

F&N 535. Nutrition for Infants and Young Children (3) Fall. Nutrition of infants and young children in health and disease, from prenatal period to adolescence. Two hours lecture and two hours of lab. Prerequisite: F&N 207 or F&N 307. Professional liability insurance required.

F&N 536. Nutrition for the Aging (3) Spring. Psychological, physiological, and socio-economic factors affecting dietary practices and nutritional needs of the elderly in group and individual situations. Two hours of lecture and two hours of clinical experience. Prerequisites: F&N 207 or F&N 307, and BIOL 332, or consent of instructor. Professional liability insurance required.

F&N 607. Family and Community Nutrition (3) On demand. Fundamental nutrition needs for the family and community at all social levels. A survey of various community-related nutrition problems and their role in human nutrition. Prerequisite: basic nutrition or consent of instructor.

F&N 608. 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. Prerequisite: basic nutrition or consent of instructor.

F&N 609. Micronutrients Through the Life Span (3) On demand. Emphasis on human needs and food sources of vitamins and minerals during health and disease conditions. Identification and discussion of the chemical and physical properties of these micronutrients in foods and human systems. Prerequisite:

site: advanced nutrition or consent of instructor.

F&N 610. Macronutrients for Human Nutrition (3) On demand. Emphasis on metabolism of the structural and energy furnishing nutrients as applied to the nutritional requirements and food supplies of people; current literature and research in proteins, carbohydrates, and lipids. Prerequisite: advanced nutrition or consent of instructor.

F&N 611. Clinical Nutrition (3) On demand. Application of nutritional principles in the treatment of human disease. Two one-hour lectures, one four-hour in-hospital laboratory. Prerequisites: courses in Advanced Nutrition, Diet Therapy, Biochemistry, Physiology, or consent of instructor.

F&N 688. Dietetic Internship I (3 or 6) Summer or Fall. Lectures exploring current topics in dietetic practice and placement. Placement in clinical settings in NW Ohio to provide opportunities for dietetic students to meet the American Dietetic Association's requirements for successful completion of a supervised practice experience (internship). Placement is approved by the F&N graduate faculty prior to registration. Prerequisites: 18 hours of graduate courses (approved by the F&N graduate faculty). Graded S/U. Lab fee.

F&N 689. Dietetic Internship II (3 or 6) Fall or Spring. Lectures exploring current topics in dietetic practice and placement. Placement in clinical settings in NW Ohio to provide opportunities for dietetic students to meet the American Dietetic Association's requirements for successful completion of a supervised practice experience (internship). Placement is approved by the F&N graduate faculty prior to registration. Prerequisite: F&N 688. Graded S/U. Lab fee.

Health Education Courses for Graduates

HED 645. Planning and Evaluating Health Education Programs (3) Fall, Summer (alternate years). Consideration of design, implementation, and assessment of health education programs.

HED 646. Application of Health

Education Concepts (3). Presentation of the major content and methodological components of health promotion programs. Prerequisite: HED 645.

HED 647. Seminar in Health Education (3). Studies and discussions in health education; topics leading to research paper or thesis.

Human Development and Family Studies Courses for Graduates

HDFS 508. Investigations in Family Life of Minority Groups (3) Spring. Directed investigation of family life of racial and cultural minority groups in the United States. Prerequisite: junior or senior standing.

HDFS 521. Parenting and Parent Education (3) Fall, Spring. Theories related to process of parenting and interactive effects of parent-child relationships including impact on roles of professionals. Strategies for working with parents are explored.

HDFS 522. Cognitive Development of the Young Child (3) Fall. Contemporary theories of intellectual development of young children; research pertaining to specific concept areas and the development of related experiences. Prerequisite: HDFS 320 or HDFS 321 or consent of instructor.

HDFS 523. Organization of Programs for Young Children (3) Spring. Factors in organization and administration of programs for young children. Prerequisite: HDFS 322 or consent of instructor. C/F hours: 20.

HDFS 526. Studies in Individual and Family Potential (3) Fall. Theories of human behavior and family interaction which promote fully functioning individuals and families. Family communication; various patterns of family adjustment to internal and external stress. Prerequisite: HDFS 105 or HDFS 302 or consent of instructor.

HDFS 601. The Young Child (3) Fall. Analysis of the role of play and of ecological variables on the competencies of young children, two through seven years. Prerequisite: a basic course in child development or consent of instructor.

HDFS 602. Family Studies (3) Spring. A comprehensive analysis of

Family and Consumer Sciences - Geography

research and theory pertaining to American families, both historically and presently, with a focus on normative, non-normative, and dysfunctional functioning, and the ongoing interplay between individuals, families, and the larger society.

HDFS 605. The Child Development Center: Interaction and Management (3) On demand. An in-depth study of the structure and function of early education settings and the concomitant dynamics of the teaching-learning process. Prerequisite: HDFS 601 or consent of instructor.

HDFS 607. Human Development (3) Fall. Current theory and research in the field of human development. Focuses on individual development through the life-span, with an emphasis on the role that contexts (e.g., historical, family, school) play in development.

HDFS 608. Theory in Human Development and Family Studies (3) Fall. Examination of characteristics of scientific theory. Overview and analysis of theories used in the study of family dynamics and human

development.

HDFS 610. Child and Family Policy (3) On demand. Analysis of the development, implementation, evaluation, and effects of public and social policies concerning children and families. Examination of policy issues to increase understanding of the ecology of child and family development.

HDFS 621. 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. Prerequisite: child development or consent of instructor.

HDFS 650. Professional Issues in Marriage and Family Counseling (3) On demand. Introduction to legal, ethical, and professional practice issues which often confront mental health counselors in general and marriage and family counselors in particular. Prerequisite: HDFS 606 or EDFI 675 or consent of instructor.

HDFS 688. Internship in HDFS

(3-6). Placement within professional settings to provide opportunities for application of course work and scholarship. Each credit hour will require 50 clock hours at the internship site. Prerequisite: placement must be approved by HDFS graduate faculty prior to registration. Graded S/U.

HDFS 701. Programs and Issues in Early Childhood Education (3) On demand. A comparative analysis of early childhood education programs and a study of the results of research regarding their effectiveness. Exploration of current issues in early education. Prerequisite: HDFS 605 or consent of instructor.

HDFS 702. Facilitation of Familial Interaction (3) On demand. Investigation of theory, research, and practice of the major educational and treatment approaches to facilitating change in family interaction patterns. Emphasis will be given to the communicational, general systemic, and ecological approaches. Prerequisite: HDFS 606 or consent of instructor.

Geography

Stephen Chang, Chair
Room: 305 Hanna Hall
Phone: 419-372-2925

Graduate Faculty

Professor - Bruce W. Smith, Ph.D.

Associate Professors - Stephen Chang, Ph.D.; Jeffrey Gordon, Ph.D.; Yu Zhou, Ph.D.

Assistant Professor - Arthur Samel, Ph.D.

Graduate offerings in geography are open to graduate students in other disciplines and may count toward degree programs in many areas.

Courses for Graduates

GEOG 502. Regional Economic Geography (3) On demand. Problems of subnational areal units in county and regional planning, poverty pockets, delivery of services; emphasis on individual projects.

GEOG 504. Climatology (3) Fall

or Spring. Fundamentals and applications; drought, water resources, human comfort, health, architecture; short- and long-term climatic changes.

GEOG 511. 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 321 or consent of instructor.

GEOG 512. Use and Interpretation of Aerial Photographs (3) Fall. Sources, types, characteristics, uses, and limitations of aerial photographs. Training in use of standard equipment for stereoscopic viewing and height measurement.

GEOG 513. Introduction to Remote Sensing (3) Spring. Principles and procedures used to obtain information about natural and cultural features through imagery derived from photographic, multi-spectral, thematic mapper, and side-looking airborne radar sensor systems.

GEOG 524. Geographic Information Systems (4) Fall or Spring. Collection, manipulation, integration, and automated display of data with emphasis on geographic/spatial analysis. Three hours of lecture and three hours of lab. Prerequisite: GEOG 321 or 422 or consent of instructor.

GEOG 526. The American City (3) Fall. Internal organization of cities. Ecological and land-use problems, ghetto development, urban-economic base, urban sprawl, and intra-urban delivery of services.

GEOG 533. Soil Classification and Mapping (3) On demand. Classification of soils; use of soil survey equipment; preparation of soil type, slope and erosion maps of assigned areas. Prerequisite: GEOG 126 or consent of instructor.

GEOG 535. Political Geography (3) Fall. Study of political features and processes from a geographical perspective. Issues include land use planning, zoning, electoral patterns, and geopolitical relationships of countries.

Geography

GEOG 536. Topics in Community and Area Development (3) Alternate years. Field analysis of various problems and topics of urban and rural areas. Prerequisite: GEOG 502 or GEOG 526 or consent of instructor.

GEOG 542. 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 555. Global Atmospheric Problems (3) On demand. Interrelationships between humans and atmospheric environments; implications of air pollution, acid rain, snow, floods, drought, temperature extremes, and global warming. Prerequisites: GEOG 125, and either GEOG 213 or GEOG 303.

GEOG 557. Global Water Resources (3) Spring. Analysis of the earth's water resources, surface water systems (drainage basins, rivers, lakes, and reservoirs), distribution, supply, demand, quality, and hydrologic extremes. Prerequisite: GEOG 125 or consent of instructor.

GEOG 575. Agriculture and Rural Development (3) On demand. Changes and trends in availability, production, and consumption of food resources; rural problems such as pollution, zoning, recreation, and future uses of rural areas.

GEOG 610. Quantitative Geographic Analysis (3) Fall or Spring. Concepts, methods, and utilization of quantitative systems for describing and analyzing geographically-distributed physical and cultural phenomena.

GEOG 611. Advanced Quantitative Methods and Spatial Analysis (3) On demand. Examination of specific methods in quantitative geography and spatial analysis. Prerequisite: GEOG 610 or consent of instructor.

GEOG 615. Philosophy and Research Design in Geography (3) Fall or Spring. Philosophy of geogra-

phy, analysis of current trends, and use of geographical source material for research.

GEOG 620. Seminar in Cartography (3) On demand. Research-oriented analysis of cartographic problems. Prerequisite: GEOG 321 or consent of instructor. May be repeated upon consent of advisor.

GEOG 621. Computer Cartography (3) Spring. Analysis and display of spatial data on two- and three-dimensional computer maps. Prerequisite: CS 500 or consent of instructor.

GEOG 630. Seminar in Cultural Geography (3) On demand. The nature and distribution of culture traits and geographic interpretation of how they evolved. May be repeated upon consent of advisor.

GEOG 631. Seminar in Population Geography (3) Fall, Spring. Theory, description, and analysis of spatial and temporal relationships between factors of population composition and change and areally-associated social, economic, political, and environmental variables. May be repeated upon consent of advisor.

GEOG 635. Seminar in Geopolitics (3) On demand. Guided research activities in geopolitics. May be repeated upon consent of advisor.

GEOG 636. Conservation Ecology (3) On demand. 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 640. Seminar in Regional Geography (3) On demand. Guided research activities in geography of selected world regions. Prerequisite: consent of advisor. May be repeated upon consent of advisor.

GEOG 650. Seminar in Physical Geography (3) Fall. 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 advisor.

GEOG 651. Seminar in Meteorology and Climatology (3) On

demand. Guided research activities in meteorology and climatology. Prerequisite: GEOG 213. May be repeated upon consent of advisor.

GEOG 655. Geography of Soils and Land Use (3) On demand. Advanced consideration of soil processes and distribution and interrelations of world soil orders and their use. Attention to land-use problems in particular regions of the world. Prerequisite: consent of instructor.

GEOG 660. Seminar in Economic Geography (3) Spring. Directed study, investigation, and research in selected problems in economic geography. May be repeated upon consent of advisor.

GEOG 675. Seminar in Urban Geography (3) On demand. Guided research activities in urban geography. Prerequisite: GEOG 526 or consent of instructor. May be repeated upon consent of advisor.

GEOG 680. Graduate Seminar (3) On demand. Systematic study of selected topics in geography. Prerequisite: consent of instructor. May be repeated upon consent of advisor.

GEOG 685. Readings in Geography (1-3) On demand. Prerequisite: consent of graduate coordinator. Graded S/U.

GEOG 689. Internship (1-6) Fall, Spring. 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. Graded S/U.

GEOG 691. Directed Research (1-3) On demand. Prerequisite: consent of graduate coordinator. Graded S/U.

GEOG 695. Workshop (1-3) On demand. Graded S/U.

GEOG 699. Thesis Research (1-12) Enrollment in excess of six hours is acceptable for a Plan I master's degree, but no more than six hours may be credited towards an M.A. degree. Minimum acceptable total for degree is three hours. Graded S/U.

Geology

Master of Arts in Teaching Master of Science

Joseph Frizado, Chair
Charles Onasch, Graduate Coordinator

Room: 190 Overman Hall
Phone: 419-372-2886

Graduate Faculty

Professors - Charles Onasch, Ph.D.; Don Steinker, Ph.D.; Robert Vincent, Ph.D.

Associate Professors - James Evans, Ph.D.; Joseph Frizado, Ph.D.; Sheila Roberts, Ph.D.

Assistant Professors - John Farver, Ph.D.; Norman Levine, Ph.D.; Jeffrey Snyder, Ph.D.; Margaret Yacobucci, Ph.D.

The **Department of Geology** offers programs leading to the degrees of **Master of Arts in Teaching** and **Master of Science**. The graduate programs in geology are oriented towards the application of modern techniques and methods of analysis to solving geologic problems, especially in the area of environmental geology and natural resources. In the program, research is an integral part of geological education. Due to the interdisciplinary nature of geology, opportunities exist for course work in other departments.

Areas of emphasis include economic geology, environmental geology, petrology, geomorphology, geochemistry, geographic information systems, hydrogeology, paleontology, sedimentology/stratigraphy, structural geology/tectonics, geophysics, geological and environmental remote sensing, and materials science

Prerequisites to Graduate Work

An undergraduate major in the geological sciences usually is adequate preparation for regular admission to the graduate degree program, providing the work submitted is of appropriate quality as determined by the department. Additionally, a basic background in mathematics, biology, chemistry, and physics or some combination thereof is recommended.

Applicants with undergraduate majors in fields other than the geological sciences will be considered

for admission on an individual basis. Students may be required to take undergraduate course work as a condition of admission. Prior to the start of the first semester in residence, a placement examination may be given to aid in advising.

Admission Procedure

Applicants seeking admission to the graduate programs in geology should follow the instructions outlined in the "Graduate Admission" section of this catalog. In addition to the general requirements, applicants must submit test scores from the GRE Subject Test in Geology.

Degree Requirements

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Master of Science

The M.S. in geology is offered under Plan I only. Candidates are required to complete: (1) an approved degree program of courses; (2) an acceptable thesis proposal no later than the end of the second semester of full-time residence; and (3) an acceptable thesis, including its successful oral defense before the thesis committee.

Completion of a geology field course is required as part of the degree program. Work experience may be substituted for this requirement at the discretion of the Department.

Courses for Graduates

GEOL 501. Economic Geology

(4) Fall (alternate years). Classification and genesis of metallic ore deposits illustrated by study of classic areas. Three lectures and one two-hour laboratory. Prerequisites: GEOL 309 and GEOL 302.

GEOL 502. Computer Applications in Geology

(3) Spring (alternate years). Methods for the retrieval, extraction, and manipulation of geological information and numerical data using computers. Prerequisites: minimum of nine credit hours in GEOL and knowledge of FORTRAN (students may co-register for CS 280), or consent of instructor.

GEOL 503. Geographic Information Systems (4) Fall. Collection, manipulation, integration, and automated display of spatial data

from various disciplines with particular emphases on environmental geology, resource management, and geographic analysis. GEOL 503 is also listed in this catalog as GEOG 503. A student may receive credit for only one of these courses.

GEOL 515. Paleontology (4) Fall, Spring. Principles of paleontology; major groups of fossil animals. Three lectures and one two-hour laboratory. Prerequisite: GEOL 105 or consent of instructor.

GEOL 518. Geology of Ohio (3) Fall (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 519. Vertebrate Paleontology (3) Spring (alternate years). Fossil vertebrates and their morphology, classification, and evolution. Two lectures and one two-hour laboratory. Credit not given for both GEOL 519 and GEOL 305. Prerequisites: GEOL 100 or GEOL 101 or GEOL 105.

GEOL 520. Environmental Aspects of Geology

(3) Fall. Contribution of geological concepts to environmental concerns. One half-day field trip required. Credit not given for both GEOL 322 and 520. Prerequisites: GEOL 104 and GEOL 310, or consent of instructor.

GEOL 523. Tectonics (3) Spring. Tectonic elements in the continents and ocean basins interpreted within the framework of plate tectonics. Prerequisites: GEOL 309 and GEOL 316.

GEOL 525. Micropaleontology (3) Spring. Classification, morphology, phylogeny, and paleoecology of selected groups of microfossils. Two lectures and one two-hour laboratory. Prerequisite: GEOL 415 or consent of instructor.

GEOL 531. Introduction to Geochemistry (4). Geological applications of basic thermodynamics, kinetics, acid-base and oxidation-reduction equilibria, solubility, stable and radiogenic isotopes, and geochemical cycles. Prerequisites: GEOL 302, CHEM 127 and 128, MATH 131 or 134 (may be taken concurrently), or consent of instructor.

Geology

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GEOL 532. Solid Earth Geophysics (4) Spring. Gravity, magnetic, and seismic properties of the earth; plate tectonics. Three lectures and one two-hour problem-solving laboratory per week. Prerequisites: GEOL 309, MATH 131, PHYS 211; or consent of instructor.

GEOL 540. Geologic Remote Sensing (4) Fall (alternate years). Use of remotely sensed multispectral data for geological applications. Data acquisition, image processing, and interpretation. Recent advances in geologic remote sensing research. Three lectures and one two-hour laboratory. Prerequisite: GEOL 309.

GEOL 545. Surface Water Hydrogeology (4) Spring (alternate years). Geological aspects of flowing water at the earth's surface, emphasizing open channel hydraulics, flood analysis, sediment transport, and water quality. Three lectures and one recitation section. Prerequisite: GEOL 316.

GEOL 546. Groundwater Hydrogeology (4) Spring (alternate years). Hydraulics of groundwater flow, hydrologic properties of geologic materials, evaluation of groundwater resources, and contamination. Three lectures and one recitation section. Prerequisite: GEOL 316.

GEOL 572. Marine Geology (3) Spring (alternate years). Processes, sediments, and organisms of modern marine environments; interrelationships and expression in rock record. Prerequisite: consent of instructor.

GEOL 580. Seminar in Geology (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

GEOL 609. Structural Geology (3) Spring. Study of the deformation of the earth's crust. Analysis of stress and strain. Origin and significance of geologic structures. Two lectures and one two-hour lab. Prerequisites: GEOL 309.

GEOL 611. Petrography (2) Fall. Second half of semester only. Identification, description, and classification of igneous, sedimentary, and metamorphic rocks through use of petrographic microscope. Two two-hour laboratories.

GEOL 613. Carbonate Geology

(4) Spring. 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.

GEOL 615. Engineering Geology (3). Characterization of geologic materials for engineering purposes; engineering properties of soils; slope stability; evaluation of natural hazards; foundation design. Two lectures and one two-hour laboratory.

GEOL 620. Environmental Geophysics (4). Application of geophysical techniques to the exploration of the shallow subsurface with an emphasis on environmental problems. Seismic reflection and refraction, resistivity, magnetics, and gravity. Three lectures and one two-hour laboratory. Prerequisites: GEOL 309, PHYS 201 or 211, or consent of instructor.

GEOL 621. Metallic Mineral Deposits (3) Fall (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 623. Sedimentary Environments (3) Fall. Study of 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 316.

GEOL 629. Advanced Invertebrate Paleontology (3) Spring (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 415.

GEOL 633. Advanced Paleobiology (3) Spring (alternate years). Paleobiological aspects of paleontology: paleoecology, paleobiogeography, evolution, phylogeny, and biochronology. Selected case histories. Prerequisites: GEOL 415 or consent of instructor.

GEOL 635. Advanced Micropal-

ontology (3) Spring (alternate years). Classification, paleoecology, and phylogeny of selected groups; use of microfossils in stratigraphic paleontology. Emphasis on Foraminifera. Prerequisites: GEOL 415 or consent of instructor.

GEOL 637. Exploration Geochemistry (3) Spring (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 501, or consent of instructor.

GEOL 638. Geochemistry of Sediments (3) Spring (alternate years). Investigation of diagenesis of sediments; chemical behavior of sediments, nature and evolution of pore fluids. Two lectures and one two-hour laboratory. Prerequisites: GEOL 531 or consent of instructor.

GEOL 639. Glacial Geology (3) Fall (alternate years). Glacial processes and influence on landscape. Three one-hour lectures. Three one-day field trips required. Prerequisite: GEOL 310 or consent of instructor.

GEOL 640. Environmental Remote Sensing (3) Fall (alternate years). Use of multispectral remote sensing data for environmental applications. Examples of localized environmental studies and engineering geology. Results of global monitoring of Earth's atmosphere, oceans, cryosphere, geological hazards, and manmade hazards by remote sensing satellites, as well as future needs. Two lectures and one two-hour lab, including internet applications. Prerequisite: GEOL 440 or GEOL 540, or consent of instructor.

GEOL 645. Sedimentary Basin Analysis (3) Fall (alternate years). Study of sedimentary basins in their tectonic and paleogeographic setting, with emphasis on collection and analysis of field data, geophysical logs, basin mapping techniques, seismic stratigraphy, and thermal maturity studies. Prerequisite: GEOL 316.

GEOL 646. Sedimentary Structures in Clastic Rocks (3) Fall (alternate years). The recognition, significance, and hydrodynamic origin of sedimentary structures in clastic sediments and sedimentary rocks, with strong emphasis on application

Geology - GREAL

of sediment transport mechanics and fluid dynamics to these features.

Prerequisite: GEOL 316.

GEOL 647. Mechanics of Sediment Transport (3) Spring (alternate years). Study of the properties of fluid flow, analysis of forces acting on a grain, initial motion, bedload and suspended load sediment transport, and deposition.

Prerequisite: GEOL 316.

GEOL 649. Geologic Research and Communication (2) Fall. Scientific methodology; geologic research methods; preparation and communication of research results. Prerequisite: consent of instructor.

GEOL 670. Geology Colloquium (1) Fall, Spring. Current topics in geology. Presentation and discussion of topics of interest to the geological community as a whole. May be

repeated twice.

GEOL 680. Seminar in Geology (1-3) Fall, Spring. 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 684/685. Directed Readings in Geology (1-3). Supervised readings to meet students' special needs. May be repeated. Prerequisite: consent of the graduate coordinator and instructor. GEOL 684 for a grade; GEOL 685 graded S/U.

GEOL 690/691. Directed Research in Geology (1-3). Individual work on a topic in which a student has special interest. Prerequisite: consent of instructor. GEOL 690 for a grade; GEOL 691 graded

S/U.

GEOL 693. Advanced Field Geology (1-6) Summer only. Utilization of field techniques to construct geologic maps, structure sections, and stratigraphic sections of specific regions. Prerequisite: consent of instructor. Lab fee.

GEOL 694/695. Workshop in Current Topics of Geology (1-3). Study of a particular topic in an intensive format. GEOL 694 for a grade; GEOL 695 graded S/U.

GEOL 699. Thesis Research (1-12). 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.

German, Russian, and East Asian Languages

Master of Arts

Master of Arts in Teaching

Timothy Pogacar, Chair
Geoffrey Howes, Graduate Coordinator

Room: 103 Shatzel Hall
Phone: 419-372-2268

Graduate Faculty

Professor - Heinz Bulmahn, Ph.D.
Associate Professors - Christina Guenther, Ph.D.; Geoffrey Howes, Ph.D.; Timothy Pogacar, Ph.D.
Assistant Professors - Kristie Foell, Ph.D.; Edgar Landgraf, Ph.D.

The Department of German, Russian, and East Asian Languages offers programs leading to the **Master of Arts in German** and the **Master of Arts in Teaching German**. It is also possible to pursue a dual Master of Arts in German and Political Science or History, as well as certain other disciplines.

The graduate programs in German are flexible enough to meet a variety of student needs and career orientations, such as teaching, government positions, and corporate employment. Students interested in secondary-level teaching can work on

obtaining teacher certification while earning a master's degree. Students can pursue a Ph.D. preparatory program with a strong concentration in literature and culture. The curriculum includes language training, with courses in composition, stylistics, and phonetics, as well as technical translating and business German. The Department also has a writer-in-residence program.

M.A. students ordinarily fulfill part of their degree requirements in Salzburg, Austria, through the Department's Academic Year Abroad (AYA) program. Students usually spend their first year of study in Salzburg and complete their degree on the University campus the following year.

Prerequisites to Graduate Work

Admission to graduate study in German requires an undergraduate major or minor in German (not less than 20 semester hours beyond the intermediate level). Applicants with less background may be accepted, provided they are willing to make up the deficiencies specified by the graduate coordinator.

As a basic entrance standard, the Department of German, Russian, and East Asian Languages looks for a minimum undergraduate GPA of 3.0 (on a scale of 4.0) and a GPA of 3.2 or better in German. Applicants' ability in the German language is an impor-

tant factor in admission decisions.

Admission Procedure

Applicants seeking admission to the graduate programs in German should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog. A copy of the specific M.A.T. requirements in German will be provided on request.

Master of Arts

A candidate may pursue a Master of Arts degree in German under the following two plans:

Plan I: Candidates must complete a minimum of 32 semester hours of graduate credit which includes the writing of a formal thesis for six hours of credit. Students must pass an oral examination on the thesis and a related area.

Plan II: Candidates must complete a minimum of 32 semester hours of graduate credit. No formal thesis is required. Students must pass a written examination on an area of specialization and an oral follow-up examination on the area of specialization and a related area.

Under either plan candidates must pass proficiency examinations in the German language. A minimum

of 24 hours in German is required, including GERM 601, a literature survey, linguistics, and a seminar. Beyond this minimum, students may apply courses in cognate areas toward their degree, subject to the approval of the graduate coordinator.

Courses for Graduates

GERM 515. 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 film.

GERM 516. Contemporary

Austria (3) Fall. Offered in AYA Salzburg Program. Survey of political and social life, education, mass media, the arts, and cultural life in present-day Austria. Guest lectures, discussion sessions, field trips. Prerequisite: admission to AYA program.

GERM 517. Advanced Composition and Conversation (2-4) Fall.

Development of increased facility in speaking and writing. (May be repeated for credit in AYA Salzburg Program.) Prerequisites: GERM 318 or consent of instructor.

GERM 518. Stylistics, Syntax, and Structure of German (2-3)

Spring. 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 consent of instructor.

GERM 519. German Drama Workshop (1-5) Spring.

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 202 or consent of instructor.

GERM 520. German Linguistics

(3) Spring. Derivation of modern Germanic languages from Proto-Indo-European. Classification and history of German within the Germanic language group. Development of the German language to New High German. Selected additional topics in linguistics.

GERM 521. Business German

(3) Fall. Offered in AYA Salzburg program. Acquisition and application of German vocabulary in business and economics. Topics include stock market, international business, and how to read the business section of a newspaper.

GERM 545. Writer and Work (2)

On demand. Readings of works by the Visiting Writer-in-Residence and discussion with the author of the creative process that produced them.

GERM 580. Seminar in German

(3) Spring. Senior seminar on topics in literature, culture, or language. Research paper. May be repeated with different topics.

GERM 582. Selected Topics in German (1-4) 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 585. Directed Readings in German (1-3).

Independent study project for advanced students of German. May be repeated to six hours with different projects. Prerequisite: arrangement with instructor and graduate coordinator prior to registration. Graded S/U.

GERM 586. Workshop in German (1-4) On demand.

Current topics and issues in the discipline. Study, readings, activities, and development of materials related to the needs of the participants. May be repeated with different topics. Repetition for credit towards a graduate degree program must be approved by the graduate coordinator.

GERM 589. Internship in German (1-6) 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 600. German for Graduate Students (4) Summer only.

For graduate students in other fields who desire to develop a reading knowledge of German. Does not count toward degree. Graded S/U.

GERM 601. Introduction to Graduate Study in German (3) Fall.

Offered in AYA Salzburg Program.

Introduction to research methods, bibliography, and scholarly writing; literary concepts and terminology; analysis of literary texts and approaches to interpretation; critical evaluation of secondary literature.

GERM 602. Introduction to Stylistics (I) On demand.

Textual analysis of various levels of linguistic usage. Introduction to generative aspects of German; derivational morphology; transformational grammar.

GERM 603. Translation (German-English) (1-2) On demand.

Introduction to 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 604. 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. Prerequisite: GERM 603.

GERM 607. Composition (Level I) (2) On demand.

Advanced practice in German composition. Complex structures, variations in style. Group and individual projects. May be repeated if taken in Salzburg.

GERM 608. 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 if taken in Salzburg. Prerequisite: GERM 607.

GERM 615. German Culture and Civilization (3).

A survey of German cultural, social, intellectual, and political development from the late Middle Ages to the end of the Nazi era.

GERM 616. Contemporary Germany (3) Spring.

Contemporary society in Germany. Division and rebuilding of Germany after World War II; systemic comparison of the FRG with the GDR (1949-90), including politics, government, the economy, education, media, social services, and general socialist reality; the German Question; changes in the

GREAL - Gerontology

GDR (1989-90); unification and its consequences.

GERM 617. Advanced Grammar and Stylistics I (4-5) Fall. Offered in AYA Salzburg Program. Advanced language skills with attention to idiom, style, and complex aspects of grammar and structure; reading and discussion of texts.

GERM 618. Advanced Grammar and Stylistics II (4-5) Spring. Offered in AYA Salzburg Program. Continuation of GERM 617.

GERM 619. Middle High German (2). Introduction to Middle High German. Readings in selected texts.

GERM 621. Survey of German Literature I (3) Fall. Offered in AYA Salzburg Program. Middle Ages through Classicism. Reading of representative literary works in their social and cultural context; study of literary periods and genres.

GERM 622. Survey of German Literature II (3) Spring. Offered in AYA Salzburg Program. Romanticism to 1945. Continuation of GERM 621.

GERM 623. German Literature Since 1945 (3) Fall. Post-World War II German literature within the framework of social and literary relationships. Authors read may vary according to genres and themes treated.

GERM 635. East German Literature (3) Alternate years. Representative writers, including Seghers, Kant, Plenzdorf, Wolf, Braun, and Mueller. Treatment of socialist aesthetic theory, the cultural policy of the GDR, and the role of writers and literature in the socialist state.

GERM 641. German Lyric (2) On demand. Introduction to forms of

German lyric poetry. Selected readings from major poets, with detailed analysis and interpretation.

GERM 670. Teaching College German (1-3) Fall, Spring. Current theories and practices; observation; supervised classroom experience; discussion of teaching techniques; advanced pronunciation and methods of teaching German pronunciation. May be repeated. Graded S/U. May be required of teaching assistants.

GERM 671. 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 680. Seminar in German (3). Seminar on topics in literature, culture, or language. Research paper. May be repeated with different topics.

GERM 682. Topics in German (1-3) On demand. Topics in German language, literature, or culture. May be repeated if topics are clearly different.

GERM 685. Directed Readings in German (1-3) On demand. Supervised individual readings to meet student's special needs. Prerequisite: advance approval by graduate coordinator and by instructor. Graded S/U.

GERM 687. Independent Study in German (1-3) On demand. Supervised independent project other than readings. May be repeated. Prerequisite: advance approval by graduate coordinator and by instructor. Graded S/U.

GERM 689. Internship in German (1-6) 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 695. Workshop 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. May be repeated with different topics. Graded S/U.

GERM 697. Supervised Practicum in Teaching (1-3) On demand. Methods and practices of teaching literature or culture, observation and supervised classroom experience; design of teaching units in literature or culture. Open to advanced graduate students; may be repeated twice with consent of department. Graded S/U.

GERM 698. Readings for Comprehensive Examination (1-6) Summer. Supervised readings in areas not covered by regular course work. No more than three hours may be counted towards degree requirements. Graded S/U.

GERM 699. Thesis Research (1-6). Enrollment in excess of six hours in consecutive semesters is acceptable for Plan I master's degree, but no more than six hours creditable toward degree. Graded S/U.

GRE 585. Directed Readings in GREAL (1-3). Independent study project for advanced students. May be repeated with different topics. Prerequisite: arrangement with instructor and graduate coordinator prior to registration. Graded S/U.

Gerontology Certificate in Gerontology

Steven Fulks, Director/Graduate
Certificate Coordinator
Room: 102 Health Center
Phone: 419-372-9930

Graduate Faculty
Assistant Professor - Steven
Fulks, Ph.D.

As society enters into the twenty-

first century, the elderly - those aged 65 and over - comprise the most rapidly growing segment of our population. To address the special needs of this segment of the population, the **College of Health and Human Services** offers the **Graduate Certificate in Gerontology**. The certificate curriculum acknowledges the role of biological, psychological, and social influences on older adults' well-being, and provides students with knowledge of how these factors interact to influence the aging pro-

cess. Employing a multi-disciplinary approach, the curriculum prepares students to assist older adults and their families meet the challenges of later life.

Regardless of a student's career goals, the certificate program provides knowledge of gerontology applicable to all business, professional, and personal situations involving older adults and their families. The certificate program is appropriate for professionals who occupy positions in agencies and

Gerontology

institutions which directly administer and deliver services to the older population, but who have not received recent formal training in gerontology; for students pursuing academic and/or research careers which focus on the older population; and for students who anticipate their chosen profession will bring them into contact with older adults.

Students may enroll only in the certificate program, or may complete the certificate in conjunction with a graduate degree at the University.

The faculty of the Gerontology Program at Bowling Green State University represent a cross-section of social science degrees in family science, psychology, and sociology. The faculty have experience in theoretical and applied gerontology through a wide array of agencies and institutions. The gerontology faculty at Bowling Green have experience in the administration of senior housing and long-term care, senior citizen centers, adult day care centers, research institutes, and other gerontological settings.

Prerequisites to Graduate Work

Formal training in gerontology is not a prerequisite to admission. Individuals currently enrolled in graduate degree programs at the University and those whose occupations bring them into contact with older adults are eligible to apply to the certificate program.

Admission Procedure

Applicants seeking admission to the certificate program should follow the instructions outlined in the "Graduate Admission" section of this Catalog.

In addition to the application required by the Graduate College, applicants to the certificate program must submit: 1) three letters of recommendation from recent instructors, employers, or other individuals qualified to evaluate probable success

in the program; 2) a statement of intent delineating the purpose for enrolling in the program; and 3) a personal statement outlining short- and long-term career goals. Careful attention is given to the personal statement accompanying the application.

Certificate Requirements

Students must complete 15 semester hours of approved courses to earn the certificate. No internship is required for the certificate. Students must complete a nine hour core of courses in the gerontology program including GERO 601, Current Perspectives in Gerontology. The remaining two courses may be taken in other departments as approved by the gerontology program. An outline of the proposed course work comprising the graduate certificate in gerontology must be approved by the director of the gerontology program and placed on file with the Graduate College. The form for the proposed course work is available from the Graduate College of from the gerontology program.

Students are encouraged to select remaining courses to build the certificate to their professional needs by working with the gerontology program and other departments. Suggested courses comprising the remaining six hours may include additional courses offered by the gerontology program, such as federal, state, and local programs in aging; aging and the family; GERO 684, Readings in Gerontology; and GERO 690, Direct Research in Gerontology. Suggested courses from other departments include, but are not limited to, CDIS 605, Communication Disorders and Aging; F&N 536, Nutrition for Aging; AHE 680, Relationships in Later Life; HMSL 628, Planning Leisure Lifestyles; PHIL 721, Professional Ethics; and PSYC 737, Mental Health and Aging.

Additional aging-related courses

from various departments will be reviewed by the gerontology faculty for fulfillment of electives as they are offered.

Courses for Graduates

GERO 601. Current Perspectives in Gerontology (3) Fall. Study of aging from a multi-disciplinary perspective. Provides a comprehensive understanding of age-related processes in content disciplines.

GERO 602. Health and Aging (3) Summer. Issues related to health and diseases among older adults. Consideration of health promotion, prevention, treatment, and public policy. Prerequisite: GERO 601 or consent of instructor.

GERO 604. Environment and Aging (3) Spring. Focus on the places where older adults live. Issues concerning housing and institutions are emphasized. Prerequisite: GERO 601 or consent of instructor.

GERO 680. Seminar in Gerontology (3). Systematic study of selected topics in gerontology. Content varies from semester to semester. Prerequisite: GERO 601 or consent of instructor.

GERO 684. Readings in Gerontology (3). Independent reading and study in specific areas of gerontology suited to needs of individual student. May be repeated. Registration must be approved by Program Coordinator. Prerequisite: GERO 601 or consent of instructor.

GERO 686. Independent Study in Gerontology (3). Supervised independent completion of a project other than readings. Prerequisite: GERO 601 or consent of instructor.

GERO 690. Directed Research in Gerontology (3). Supervised independent research on a particular topic. Registration must be approved by program coordinator. Prerequisite: GERO 601 or consent of instructor.

Graduate Business Administration

Graduate Business Administration

Master of Business Administration

James McFillen, Associate Dean,
Graduate Studies in Business
Carmen Castro-Rivera, Director,
Graduate Studies in Business
Toby Swick, Assistant Director,
Graduate Studies in Business
Room: 369 College of Business
Administration
Phone: 800-247-8622 or
419-372-2488
Fax: 419-372-2875
E-mail Address:
mba-info@cba.bgsu.edu

Graduate Faculty Accounting and Management Information Systems

Associate Professors - W. David
Albrecht, Ph.D.; Patricia Essex,
Ph.D.; Alan Lord, Ph.D.

Assistant Professors - Andreas
Nicolaou, Ph.D.; Madhavarao
Raghunathan, Ph.D.; Sachi Sakthivel,
Ph.D.; Paul Schauer, Ph.D.; David
Stott, Ph.D.

Applied Statistics and Operations Research

Professors - Danny C. Myers,
Ph.D.; B. Madhu Rao, Ph.D.; James
Sullivan, Ph.D.

Associate Professors - Nancy
Boudreau, Ph.D.; Grace Montepiedra,
Ph.D.; Arthur Yeh, Ph.D.

Economics

Professors - M. Neil Browne,
Ph.D.; Paul Haas, Ph.D.; John Hoag,
Ph.D.; Mark Kasoff, Ph.D.; Kyoo Kim,
Ph.D.

Associate Professors - Mary Ellen
Benedict, Ph.D.; Timothy Fuerst,
Ph.D.; Alan Haight, Ph.D.; J. Kevin
Quinn, Ph.D.; Peter VanderHart,
Ph.D.

Assistant Professors - Lisa Wilder,
Ph.D.; Stephen Ziliak, Ph.D.

Finance

Professors - Sung Bae, Ph.D.; Raj
Padmaraj, Ph.D.

Associate Professor - Daniel Klein,
Ph.D.

Assistant Professor - Terry
Richardson, Ph.D.

Legal Studies and International Business

Professors - Nancy Kubasek, J.D.;
Sue Mota, J.D.

Associate Professor - Brent
Nicholson, J.D.

Assistant Professors - Vinod Jain,
Ph.D.; Linda Ueltschy, Ph.D.

Management

Professors - James McFillen,
D.B.A.; Peter Pinto, Ph.D.

Associate Professors - Arthur
Darrow, Ph.D.; Edward Duplaga,
Ph.D.; Janet Hartley, Ph.D.; Richard
Penlesky, D.B.A.

Assistant Professors - Steven
Cady, Ph.D.; Bryant Hudson, Ph.D.;
Mitchell Neubert, Ph.D.; Diana Wong-
Millette, Ph.D.

Marketing

Professor - Susan Petroschius,
Ph.D.

Associate Professors - Mark
Bennion, Ph.D.; Nancy Merritt, Ph.D.;
Stephen Newell, Ph.D.; William
Redmond, Ph.D.; Philip Titus, Ph.D.;
Bob Wu, D.B.A.

Assistant Professors - Stacey
Menzel Baker, Ph.D.; Susan Kleine,
Ph.D.; Gregory Rich, Ph.D.; Judith
Washburn, Ph.D.

Bowling Green State University
has offered the **Master of Business
Administration** degree since 1961.
The program is accredited by
AACSB - The International Associa-
tion for Management Education.
Individuals may pursue the M.B.A.
degree through the full-time, evening,
or executive program. The M.B.A.
curriculum is organized into three
parts. The foundation courses cover
accounting, economics, information
technology, and quantitative meth-
ods. The core courses include ethics
and law, finance, marketing, and
operations management. The
capstone courses cover economic
policy, leadership and change,
strategy design and implementation,
and international business and
management.

Admission Procedure

All three of the M.B.A. programs
are designed for individuals with or
without an undergraduate degree in
business. The full-time and evening
programs do not require professional
experience as a condition of admis-
sion. However, the Executive M.B.A.
program requires three or more years
of full-time professional or managerial

experience for admission. The Gradu-
ate Management Admission Test
(GMAT) is required for admission into
all programs leading to the M.B.A.
degree. Applicants seeking admission
to one of the three M.B.A. programs
should follow the instructions out-
lined in the "Graduate Admission"
section of this catalog. Application
forms and instructions are available
from the Graduate Studies in Busi-
ness office or can be obtained from
the M.B.A. website at
www.cba.bgsu.edu/gsb/gradprg/.
Applicants are reminded that the full-
time M.B.A. program begins in July
and the Executive M.B.A. program
begins in late October. Students may
begin the evening M.B.A. program in
any semester. Applicants should
check with the Graduate Studies in
Business office for application
deadlines and plan their application
process accordingly.

Degree Requirements Full-time and Evening M.B.A. Programs

The full-time program serves
individuals who plan to enroll in 12
or more graduate credit hours per
semester. The full-time program
requires 47 graduate credit hours, 42
credit hours of course work, and five
graduate credit hours of professional
development seminars. The 14
required courses and the professional
seminars must be completed in a
specific order. This "lockstep" format
is designed to foster integration
across the program and a strong
learning community among the
program's participants. Enrollment in
the full-time program is limited, and
students may enter the program only
in the summer (July). Students can
complete a general M.B.A. degree in 3
1/2 semesters or complete an M.B.A.
degree with a specialization in 4 1/2
semesters of full-time study.

The evening M.B.A. program
serves individuals who must pursue
their M.B.A. degrees as part-time
students. Classes are offered Monday
through Thursday evenings. The
evening program requires 42 gradu-
ate credit hours. Evening students
are almost evenly split between those
taking one versus two courses per
semester. At two courses per semes-
ter, the M.B.A. degree can be com-
pleted in as little as seven semesters.

Graduate Business Administration

Students may begin the evening M.B.A. program in any semester.

The full-time and evening programs share the same 14 required courses. The six foundation courses include ECON 600, STAT 601, and MBA 600, 601, 602, and 603. The four core courses include MBA 604, 605, 606, and 607. The four capstone courses are ECON 601 and MBA 608, 609, and 610. Full-time students are required to enroll in five credit hours of MBA 583, Topics in Management, three credit hours during the first summer in the program and one credit hour in each of the subsequent fall and spring semesters. Both programs require that the six foundation courses be completed before taking the four core courses, which in turn must be completed before taking the four capstone courses.

The full-time and evening M.B.A. programs offer formal specializations in finance, management information systems (MIS), marketing, and supply chain management. The finance specialization requires MBA 551, 552, and 657 and one additional course selected from MBA 553, 554, and 558. The MIS specialization is composed of five required courses: MBA 621, 622, 623, 624, and 625. The marketing specialization requires MBA 646 and 647 and two additional courses selected from an approved list of courses. Supply chain management requires MBA 635, 637, and 639 and one elective selected from MBA 531, 623, and 644. Full-time and evening M.B.A. students may select electives from other graduate offerings on campus and may combine their M.B.A. degrees with a second graduate degree. Interested students should contact the Graduate Studies in Business office for further information.

Executive M.B.A. Program

Bowling Green State University began offering an Executive M.B.A. program in 1977. The EMBA program serves experienced professionals whose work responsibilities, travel, and potential for relocation make it impractical to enroll in an evening or weekend program. The Executive M.B.A. is a rigorous, accelerated program that requires twelve graduate courses: ECON 600, STAT 601, and MBA 601, 602, 604, 605, 606,

607, 608, 609, 610, and 620. The courses are offered in a "lockstep" format in six two-week sessions over a period of 31 months. The sessions are held each year in late October and mid-May. During each two-week session, participants complete two graduate courses. Each course typically requires pre- and post-session assignments. The two-week format accommodates professional travel and relocation, keeps weekends free for other activities, encourages participants to immerse themselves in the on-campus learning experience, and promotes the development of a learning community among the participants.

Foundation Courses

ECON 600. Economic Analysis of the Firm (3). Applications of microeconomic theory to the decision-making process of the firm. Topics include marginal analysis, market structure, competitive strategy, and public policy issues.

MBA 600. Financial Accounting and Analysis (3). Addresses financial accounting concepts and development of financial statements. Emphasis is placed on the effect of business processes on the reported financial statements of an organization and on the usage of financial information in the management and analysis of business operations. Prerequisite: MBA students only or consent of Graduate Studies in Business.

MBA 601. Quantitative Analysis for Managers (3). This course provides students with the opportunity to develop analytical skills through the application of quantitative models to managerial problems. Students will learn to design analyses in the context of practical business situations and use the results obtained to support managerial decision making.

MBA 602. Information Technology for Managers (3). A survey of topics in information systems. Provides an understanding of key information technologies and the role of IT in organizations. Focuses on empowering managers with the knowledge of IT necessary to effectively apply information technology in their domain. Prerequisite: MBA 583 or consent of Graduate Studies in Business.

MBA 603. Managerial Accounting (3). Applies accounting to the decision making, planning, and control processes of management. Emphasizes the nature, use, and reliability of accounting data for decision making. Prerequisite: MBA students only or consent of Graduate Studies in Business.

MBA 620. Accounting for Executives (3). Examines accounting concepts and financial statements. Applies accounting to the decision-making, planning, and control processes of management. Prerequisite: EMBA students only or consent of Graduate Studies in Business.

STAT 601. Statistics for Managerial Decisions (3). Fundamental statistical concepts and important statistical techniques will be introduced. Topics to be covered include exploratory data analysis, confidence interval estimation, hypothesis testing, regression analysis, forecasting, analysis of variance, and contingency tables. Credit not applicable toward the M.S. in Applied Statistics.

Core Courses

MBA 604. Operations Management (3). Emphasizes the major managerial problems and decision processes of operations management including operations strategy, product and process design, quality management, planning and control systems, and integration of the operations function with other organizational processes. Prerequisite: MBA students only or consent of Graduate Studies in Business.

MBA 605. Marketing Management and Strategy (3). Relevant theory and practice as related to principles, analysis, and planning for developing marketing strategy.

MBA 606. Financial Management (3). Addresses the acquisition and allocation of funds for non-financial firms. Topics include financial tools, valuation, risk and return, cost of capital and capital budgeting, long- and short-term fund sources, capital structure and dividend policy, working capital management, and mergers and acquisitions. Executive view stressed. Includes use of cases. Prerequisite: MBA students only or consent of Graduate Studies in Business.

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MBA 607. Ethics and Law in Business (3). Examination of issues relating to law and ethics that impact the business enterprise including product liability, contract issues, intellectual property, privacy, agency, officer and director liability, employment discrimination, bribery, and the social responsibility of business. A case study approach is emphasized.

Capstone Courses

ECON 601. Economic Policy (3). Application of concepts introduced in ECON 600. Economic influences on business decision making are evaluated using market and nonmarket economic forces, as well as macroeconomic tools. Current economic environment provides basis of topical content. Prerequisite: ECON 600.

MBA 608. Leadership and Change (3). Examines the role of leadership within the context of organizational change and globalization. Emphasizes working with individuals and teams to define changing performance expectations, to facilitate changes in individual and team behavior, and to motivate people with diverse goals and backgrounds. Considers the cross-cultural and ethical implications of change. Prerequisite: MBA students only or consent of Graduate Studies in Business.

MBA 609. Strategy Design and Implementation (3). Examines competitive and corporate strategies from the general manager's perspectives. Topics include analysis of strategic mission and objectives, environmental and industry dynamics, development of internal resources and capabilities, and sources of competitive advantage in a changing global environment. Evaluates appropriate competitive and corporate strategic alternatives. Emphasizes the development of coherent strategies for implementation, includes integrating functional areas and mobilizing all aspects of an organization to achieve and sustain competitive advantage. Prerequisites: completion of MBA foundation and core courses.

MBA 610. International Business and Management (3). Addresses environment of international business; theories of international trade and investment; regional

economic integration; international monetary system; international strategy formulation and implementation; entering and competing in foreign markets; managing international operations. Integration of the functional aspects of multinational enterprises through problem solving, case analysis, and/or simulation. Prerequisites: completion of MBA foundation and core courses.

Elective Courses

In addition to the GBA and MBA courses listed below, MBA students may select from a variety of accounting (ACCT), economics (ECON), operations research (OR), organization development (ORGD), and statistics (STAT) courses offered by the College of Business Administration as well as courses from other graduate programs on campus.

GBA 572. Computer and Technology Law (3). Civil and criminal law involving computers and technology, including employment contracts and tort liability including contracts to buy and sell hardware and software; invasion of privacy and computer malpractice; intellectual property including patents, copyrights, trade secrets, and trademarks.

GBA 574. Seminar in Entrepreneurship (3). An exploration of macro-economic models of entrepreneurship, including fiscal, regulatory, and taxation issues, the study of product-market strategies, new business structures, capital acquisition, and the creation of a business plan. Prerequisites: GBA 520, 530, 540, or their equivalents.

GBA 585. Readings in Business Administration (1-4). Supervised study and/or projects pertaining to any area of business administration. This course cannot be included in the minimum hours required for the MBA degree. Graded S/U. Prerequisite: consent of Associate Dean for Graduate Studies. May be repeated.

GBA 587. Workshop in Business Administration (1-4) On demand. Selected topics in Business Administration. May be repeated. Credit may not be applied toward graduate programs in the College of Business Administration. Graded S/U.

GBA 636. Advanced Organization Theory and Behavior (3).

Understanding effective functioning of individuals and groups in organizations through study of organizational processes. Emphasis upon applying conceptual knowledge to major organizational problems and issues such as productivity, conflict, decision making, leadership, and organizational adaptation and change. Not open to students with credit for MBA 608.

GBA 661. Linear and Integer Programming (3). Modeling industrial and public administration problems via linear, goal, and integer programming; L.P. solution techniques, sensitivity analysis, dual, parametric programming; cutting-plane and branch and bound method; current topics in integer programming. Prerequisite: GBA 560 or equivalent or consent of instructor.

GBA 662. Probability Models for Decision Making (3). Techniques of modeling business decision problems involving random phenomena. Topics include elementary probability models, Markov chains and waiting line models along with their applications in various functional areas of business. Prerequisites: GBA 560 and STAT 500 or equivalent.

GBA 666. Computer Simulation of Management Systems (3). Techniques for modeling manufacturing, inventory, queuing, scheduling, communication, and transportation systems under uncertainty; implementing these models using computer simulation languages (e.g., GPSS). Prerequisite: STAT 500 or equivalent and one computer programming course.

GBA 669. Cases in Management Science (3). Applications of management science techniques to problems in finance, management, marketing, and other areas of business will be examined by the use of case studies. Students will experience the process of problem discovery, specification, and analysis through individual and team projects. Prerequisite: GBA 560 or CS 440 or equivalent.

GBA 672. International Business Operations and Strategy (3). Focuses on strategy and policies of firms with overseas operations. Integrates the major functional areas of business administration from an international perspective. Emphasizes

Graduate Business Administration

cases and problem-solving skills. Prerequisite: satisfactory completion of all required MBA Phase I courses.

GBA 674. Environmental Law for Managers (3). Provides a comprehensive look at the environmental problems facing business managers today, and examines alternative strategies for approaching these problems from both a managerial and societal standpoint. Prerequisite: satisfactory completion of all required MBA Phase I courses.

GBA 680/681. Seminar in Business Administration (1-3). Group study of special topics in business administration. Must be approved by Associate Dean of Graduate Studies in Business. GBA 680 for a grade; GBA 681 graded S/U.

GBA 682. Issues in Business Administration (3). Contemporary topics are studied. Topics will be selected by the program faculty and will change to reflect current topics worthy of study in a graduate environment. Letter grade only.

GBA 683. Topics in Business Administration (1). A wide variety of topics are included that will be relevant to the MBA program and will vary from year to year. May not be repeated. Graded S/U.

GBA 686. Independent Study in Business Administration (1-3). Individual study of special issues pertaining to business administration. Must be approved by Associate Dean of Graduate Studies in Business. Letter grade only. Prerequisite: good academic standing.

GBA 687. Independent Study in Business Administration (1-3). Individual study of some phase of business administration. Must be approved by Associate Dean of Graduate Studies in Business. Graded S/U.

GBA 691. Business Research Project (1-3). Research project on topic approved by advisor 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 695. Workshop in Business Administration (1-4) On demand. Selected topics in Business Administration. May be repeated. Credit may

not be applied toward graduate programs in the College of Business Administration. Graded S/U.

GBA 697. Supervised Field Study (1-3). A supervised field study whereby problem(s) will be identified, optional solutions will be identified and analyzed against a set of objectives, and a proposed solution will be recommended and defended. May be a team project. Graded S/U.

MBA 531. Production Planning and Control (3). Addresses production planning and control processes. Topics include intermediate range scheduling such as aggregate planning and master scheduling; short-range production scheduling such as job shop scheduling; capacity planning and control such as rough-cut capacity planning and capacity requirements planning; material planning and control using material requirements planning; and project scheduling with resource constraints. Not open to students with credit for MGMT 445. Prerequisite: MBA 603 or consent of Graduate Studies in Business.

MBA 551. Portfolio Management (3). Addresses the application of security analysis and portfolio management. Topics include both security analysis and portfolio theory, applied security analysis, and development and management of investment portfolios. Not open to students with credit for FIN 435. Prerequisite: FIN 300 or equivalent.

MBA 552. Advanced Corporate Finance (3). Addresses the application of decision-making procedures to realistic problems in financial management. A case approach is emphasized. Not open to students with credit for FIN 455. Prerequisite: FIN 300 or equivalent.

MBA 553. International Financial Management (3). Extends financial management to the international arena with emphasis on the financial strategies of multinational corporations. Topics include foreign exchange markets, currency futures and options markets, swaps, international securities markets, managing and hedging currency risk, multinational financing strategies and capital budgeting, and international portfolio management. Not open to students with credit for FIN 410. Prerequisite:

FIN 300 or equivalent.

MBA 554. Bank Management (3). Addresses the management of banking fund resources; their allocation among reserves, loans, and investments; and their impact on bank liquidity and profitability. Considers depositors' services and credit and lending analysis practices. Not open to students with credit for FIN 412. Prerequisite: FIN 300 or equivalent.

MBA 558. Personal Financial Planning (3). Addresses the development of a client's comprehensive financial plan from the perspective of a professional financial planner. Reviews and integrates the five practical areas of financial planning: investment, insurance, tax, retirement, and estate planning. Not open to students with credit for FIN 412. Prerequisite: FIN 300 or equivalent.

MBA 580/581. Seminar in Business Administration (1-3). Study of designated topics in business. Content of seminar will vary. Prerequisite: MBA students only or with consent from Graduate Studies in Business. May be repeated with approval from Graduate Studies in Business. MBA 580 for a grade; MBA 581 graded S/U.

MBA 583. Topics in Management (1-3). A variety of topics are included that provide future managers with the personal, interpersonal, and organizational skills necessary for a career in management. Prerequisite: MBA students only or with consent from Graduate Studies in Business.

MBA 621. Windows Application Design (3). Design of business applications in the Windows environment. Focuses on developing front-end applications to databases using tools such as Visual Basic and on integrating Windows applications.

MBA 622. Business Database Management (3). Addresses the theory and practice of business database management. Topics include data modeling; logical design; normalization techniques; physical design; database implementation; relational, hierarchical, and network models; database administration; and security issues. Emphasizes data modeling and implementation using DBMS. Requires a significant busi-

Graduate Business Administration

ness project involving many aspects of design and implementation. Prerequisites: MBA 602 and 621.

MBA 623. Electronic Commerce (3). Examines the opportunities that Internet-related technologies have to offer for conducting electronic commerce. Includes coverage of a variety of tools, analysis of available business opportunities, skills needed to exploit exciting new opportunities, and an analysis of critical management issues. Prerequisite: demonstrated computer literacy. Lab fee.

MBA 624. Business Data Communications (3). Addresses the principles of data telecommunications for business. Topics include telecommunications hardware, ISO/OSI reference model, local and wide-area data network structures and management, and structure and environment of data communications industry. Focuses on managerial implications of various components of the telecommunications industry and how they affect the business environment. Not open to students with credit for CS 529. Prerequisite: MBA 602.

MBA 625. Business Systems Analysis (3). Examines systems analysis and design for computer-based information systems. Topics include the determination of information requirements, design of systems and methods, feasibility study contents, and project management techniques. Prerequisite: MBA 622.

MBA 632. Human Resources Management and Change (3). Examines the major topics in personnel and human resource management emphasizing the role of HRM policies and practices in achieving and facilitating organizational change. Topics include job analysis, human resource planning, staffing, career management, appraisal, compensation, development, and labor relations. Prerequisite: MBA and MOD students only or consent of Graduate Studies in Business.

MBA 635. Managing Purchasing and Materials Management Systems (3). Addresses the management and control of the purchasing and materials management subsystems. Topics include managing the supplier base, supplier selection and evaluation, negotiation, cost/price analysis, total cost modeling, international

sourcing, strategic sourcing and partnerships, and measurement of purchasing/materials management performance. Prerequisite: MBA 604 or consent of Graduate Studies in Business.

MBA 637. Supply Chain Management (3). Addresses the planning and control of acquisition, movement, and storage activities of materials across the supply chain. Topics include supply chain management, logistics system, transportation, order processing, and inventory requirements. Prerequisite: MBA 604 or consent of Graduate Studies in Business.

MBA 639. Topics in Operations and Supply Chain Management (3). Addresses recent developments in production planning and supply chain management. Topics include materials requirements planning, capacity planning, product process technology, operating systems management, and supplier development. Prerequisite: MBA 604 or consent of Graduate Studies in Business.

MBA 641. Internet Marketing (3). Addresses relevant theory and practice as related to how the Internet impacts marketing functions. Demonstrates how the Internet serves as a means of communication (e.g., with customers); as a medium for accessing information for decision support, capturing data on customer prospecting behavior, and conducting marketing research; and as a channel for capturing revenue, organizing distribution, and/or distributing specific services directly. Prerequisite: MBA 605 or consent of Graduate Studies in Business.

MBA 642. Services Marketing Management (3). Addresses marketing theory and practice as related to the marketing function in service organizations. Emphasizes the distinctive needs and problems associated with the marketing of services. Examines and integrates the theoretical foundations from fields of psychology, environmental psychology, sociology, organizational behavior, and marketing as they relate to marketing strategy. Prerequisite: MBA 605 or consent of Graduate Studies in Business.

MBA 644. Business-to-Business

Marketing (3). Addresses the strategic analysis of industrial and business-to-business marketing emphasizing analysis of markets, organizational buyer behavior, marketing research, forecasting, and management of pricing and promotional elements. Considers all three types of business-to-business markets (resale, industrial, and institutional) along with comparisons with consumer markets. Prerequisite: MBA 605 or consent of Graduate Studies in Business.

MBA 645. Product Development and Management (3). Examines the development and introduction of new industrial and consumer products as well as the management of existing products. Focuses on the control of a product from initial idea generation through the new product development process and product life cycle, with emphasis on strategies for each stage. Includes such topics as organizing for new products, concept generation and evaluation, test marketing, diffusion of innovations, product life cycle, positioning, and abandonment. Prerequisite: MBA 605 or consent of Graduate Studies in Business.

MBA 646. Customer Analysis (3). Addresses the processes and procedures associated with the integrated business activity of customer analysis. Emphasizes the exploration of the cognitive and behavioral dimensions of customer behavior, along with an examination of the various qualitative and quantitative methods employed in gathering customer information. Prerequisite: MBA 605 or consent of Graduate Studies in Business.

MBA 647. Integrated Marketing Communications Strategy (3). Addresses strategic approaches to managing marketing communications. Topics include integrated marketing communications strategy, selecting target audiences, persuasion, setting objectives, using promotion mix tools (advertising, sales promotion, personal selling, public relations, publicity, direct marketing, and Internet applications), creative strategy, media strategy, program evaluation, and regulatory and ethical issues. Prerequisite: MBA 605 or consent of Graduate Studies in

Graduate Business Administration - Graduate College - HIED

Business.

MBA 657. Money and Capital Markets (3). Addresses the structure and functioning of money and capital markets. Uses flow of funds accounts to assess effects of business conditions demand for and supply of funds by supplier and user groups. Considers the implications for financial, investment, and loan management. Prerequisite: MBA 606 or consent of Graduate Studies in Business.

MBA 680/681. Seminar in Business Administration (1-3). Study of designated topics in business. Content of seminar will vary. Prerequisite: MBA students only or with consent from Graduate Studies in Business. May be repeated with approval from Graduate Studies in Business. MBA 680 for a grade; MBA

681 graded S/U.

MBA 683. Topics in Business Administration (1). Study of designated topics in business. Content of seminar will vary. Prerequisite: MBA students only or with consent from Graduate Studies in Business. May not be repeated. Graded S/U

MBA 686/687. Independent Study in Business Administration (1-3). Individual study of designated topics in business. Must be approved by Graduate Studies in Business. Prerequisites: good academic standing and MBA students only or with consent from Graduate Studies in Business. MBA 686 for a grade; MBA 687 graded S/U.

MBA 691. Business Research Project (1). Research project on topic approved by a graduate faculty

advisor. Involves research methodology, collection and analysis of data, and presentation of the results.

Prerequisite: consent of Graduate Studies in Business. Graded S/U

MBA 695. Workshop in Business Administration (1-4). Selected topics in business administration. Credit may not be applied to graduate programs in the College of Business Administration. Prerequisite: consent of Graduate Studies in Business. Graded S/U.

MBA 697. Supervised Field Study (1-3). Study of a managerial problem in an applied setting. Project must be supervised by a faculty member. Prerequisite: consent of Graduate Studies in Business. Graded S/U.

Graduate College

120 McFall Center
Phone: 419-372-2791

The Graduate College offers the courses listed below as a service to graduate students and faculty at Bowling Green State University

Courses for Graduates

GRAD 600. 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 is offered in August prior to fall semester. If the program is not completed during August, new graduate assistants and teaching fellows will be enrolled in the most immediate session available in

relation to when their contracts begin. Graded S/U.

GRAD 680. Graduate Seminar (1-3) On demand. Study of selected topics.

GRAD 899. Independent Research (1-7).

Higher Education Administration

Doctor of Philosophy

Donald D. Gehring, Director/
Graduate Coordinator
Room: 330 Education Building
Phone: 419-372-7382

Higher Education Program Graduate Faculty

Professors - Leigh Chiarelott, Ph.D.; Donald D. Gehring, Ed.D.; Ernest Savage, Ed.D.; Carney Strange, Ph.D.

Associate Professors - Michael Coomes, Ed.D.; Robert DeBard, Ed.D.; Fiona MacKinnon-Slaney, Ph.D.; Carolyn Palmer, Ph.D.

Assistant Professors - Haithe Anderson, Ph.D.; Patricia Kubow, Ph.D.

The **Ph.D. program in higher education administration** within the **School of Leadership and Policy Studies** offers a strong but flexible curriculum designed to prepare students for a variety of leadership positions in teaching, academic administration, and student affairs in postsecondary educational settings. The curriculum is primarily designed for those who seek to provide leadership for a broad range of teaching and administrative positions in colleges and universities ranging from two-year to graduate institutions. This curriculum also will accommodate others who wish to prepare themselves as educational leaders for other organizations in the public and private sectors.

The core curriculum for the Ph.D. program offers a foundation of history, philosophy and curriculum,

basic understandings of organizational theory, and of students in postsecondary education, as well as skill courses in the areas of budget administration and law.

The Ph.D. program's flexibility is provided by a 12-hour cognate in which students may specialize in a relevant area of their choice in order to meet their particular career objectives. Exemplary options include, but are not limited to, student affairs, adult learning and development, business, management, public relations and communications, and technology education.

Ph.D. students are encouraged to participate in experiential learning opportunities such as practica, internships, and assistantships. These experiences provide students with opportunities to broaden and enhance their professional back-

grounds through exposure to new areas of administration, instruction, and research as well as the application of theory to practice.

Prerequisites to Graduate Work

Applicants to the Ph.D. program must hold a master's degree or equivalent from an accredited institution as a prerequisite for admission to the Ph.D. program. The degree need not be in education, but must be relevant to the student's career objectives. Evidence of at least three years of successful work experience beyond the advanced degree is expected.

Admission Procedure

Applicants seeking admission to the higher education administration graduate program should follow the instructions outlined in the "Graduate Admission" section of this catalog and should contact the higher education administration program directly for additional supplemental application materials.

Degree Requirements

The higher education administration Ph.D. program is a 60 semester hour post-master's curriculum requiring completion of a core of 21 semester hours in higher education studies, 12 semester hours in a cognate specialization of the student's choice, nine semester hours of research tools, a global awareness requirement, a comprehensive examination, a minimum of 16 hours of dissertation credit, and two hours of dissertation seminar. Where appropriate, students may be required to complete an internship experience.

Courses for Graduates

HIED 710. Issues in Higher Education (3) On demand. Analysis of the broad range of current problems, concerns, and professional issues confronting administrators, faculty, students, and others concerned about higher education.

HIED 711. Governance and Organization of Higher Education (3) Fall. In this seminar, emphasis will be placed on developing an understanding of the mission, organizational structure(s), and governance of higher education institutions.

HIED 712. Administration of

Higher Education (3) Spring. This seminar involves an exploration of the functional areas/skills that contribute to the effective administration of higher education institutions. Emphasis will be placed on planning, leadership, personnel administration, and facility management in the higher education environment. Prerequisite: HIED 711 recommended.

HIED 713. The Organization and Administration of the Two-year College (3) Summer. An overview of the two-year (community and technical) college emphasizing organizational structure, administrative patterns, role and scope, institutional/system characteristics, and trends.

HIED 720. Curriculum in Higher Education (3) Spring. This course focuses on the principles and issues involved in curriculum planning in higher education. Special attention is given to traditional and alternative curriculum design modes and to contemporary issues such as moral development, ethics, cultural diversity versus uniformity, liberal versus vocational education, and changing demographics. Prerequisite: EDFI 702 or consent of instructor.

HIED 721. Law and Higher Education (3) Fall. This course will emphasize the legal environment of postsecondary institutions, legal processes, analysis, and problems incurred in the administration of colleges and universities. Prerequisite: consent of instructor.

HIED 724. Budget Administration in Higher Education (3) Spring. This course focuses on financing higher education in the U.S. from a theoretical as well as practical perspective. Special emphasis is placed on the process and politics of budgeting, financial accounting and reporting, and the funding of higher education. Included in the course assignments is an in-depth analysis of an institutional budget and a reallocation exercise. Prerequisite: HIED 711, HIED 712, or consent of instructor.

HIED 730. Leadership in Higher Education (3) On demand. This seminar focuses on leadership in higher education from a theoretical as well as practical perspective. Topics to be explored include leadership

theory, effective leadership, leadership and power, leadership styles, and leadership development. Prerequisite: HIED 712 or consent of instructor.

HIED 731. The American College Student (3) Spring. This course offers a comprehensive overview of the American college student from the perspective of demographic, psychological, and cultural differences; patterns of growth and change during the college years; and the expected educational outcomes of college attendance.

HIED 732. Planning in Higher Education (3) On demand. This seminar focuses on planning in higher education in the U.S. from a theoretical as well as a practical perspective. Emphasis is on the understanding and application of the steps involved in effective planning. Appropriate tools/techniques to expedite and enhance planning efforts will be identified. Prerequisite: HIED 712 or consent of instructor.

HIED 733. Women in Higher Education (3) Fall. An exploration of issues, research, and practices influencing women's roles as students, faculty, and staff. Topics include: historical and psychological perspectives on achievement; identity formation; leadership; professional development; socialization and self-esteem.

HIED 734. College and University Teaching (3) Fall. An examination of the philosophies, methodologies, and related issues (gender, race, et al.) that influence teaching and learning in the college and university classroom setting. Emphasis on teaching effectiveness and the application of course material to the formal classroom environment.

HIED 751. Qualitative Problems and Methods in Higher Education (3) Fall. An examination of alternative paradigms and methods of research in higher education with a comprehensive overview of extant models, including naturalistic inquiry, case study, and ethnography, and their application to problems and practices in higher education.

HIED 752. Issues and Methods of Applied Inquiry in Higher Education (3) Spring. This course involves research and evaluation methods

HIED - History

used by higher education administrators and provides a special focus on the application of data or information to the decision-making and policy-formulation processes. Prerequisites: EDFI 741, HIED 751.

HIED 780. Graduate Seminar in Higher Education (1-3) On demand. Advanced study of a selected topic in higher education. Content varies from year to year (or semester). Instructor's consent required prior to registration. May be repeated on approval of graduate coordinator.

HIED 784. Advanced Readings in Higher Education (1-3) On demand. Independent supervised study on selected problems through extensive readings. Proposed plan of study must be approved by instructor prior to registration. May be repeated upon approval of student's advisor.

HIED 789. Higher Education Administration Internship/Field Experience (1-3) On demand. This course represents a planned field experience designed to provide the student with in-depth, on-site involvement with a qualified professional occupying an administrative position to which the student aspires. A maximum of three semester hours may be applied toward the degree, but the course may be repeated with consent of the advisor. Graded S/U.

HIED 790. Directed Research in Higher Education (1-4). Supervised independent research on delimited topic related to higher education. Proposal for directed research must be approved by instructor prior to registration. May be repeated on approval of student's advisor.

HIED 797. Advanced Practicum

in Higher Education (1-3) On demand. Supervised experience in higher education for advanced graduate students. Approval of supervisor is required prior to registration. May be repeated for credit upon approval of student's advisor. Graded S/U.

HIED 798. Readings for Preliminary Examination (1-12) On demand. Supervised independent readings in preparation for the doctoral preliminary examination. Graded S/U.

HIED 799. Dissertation Research (1-16). Student must register for a minimum of 16 hours in this course while working on doctoral dissertation; may be repeated to 30 hours in degree program.

History

Master of Arts

Master of Arts in Teaching

Doctor of Philosophy

Fujiya Kawashima, Interim Chair
Douglas Forsyth, Graduate Coordinator

Room: 128 Williams Hall
Phone: 419-372-2030

Graduate Faculty

Professors - Edmund Danziger, Ph.D.; James H. Forse, Ph.D.; Gary Hess, Ph.D.; Fujiya Kawashima, Ph.D.; Kenneth Kiple, Ph.D.; Donald Nieman, Ph.D.; Don Rowney, Ph.D.; Judith Sealander, Ph.D.

Associate Professors - Lillian Ashcraft-Eason, Ph.D.; Douglas Forsyth, Ph.D.; Thomas Knox, Ph.D.; Scott Martin, Ph.D.

Assistant Professors - Rachel Buff, Ph.D.; Robert Buffington, Ph.D.; Liette Gidlow, Ph.D.; Walter Grunden, Ph.D.; Apollos Nwauwa, Ph.D.

The **Department of History** offers programs leading to the degrees of **Master of Arts**, **Master of Arts in Teaching**, and **Doctor of Philosophy**. It is also possible to pursue a dual Master of Arts in History and German, History and Spanish, or History and French. In these pro-

grams, individual research and knowledge of research by others in the field are integral to students' education. Special attention is given to research techniques, historiography, and policy history; indeed, the Bowling Green policy history program is the most comprehensive in the nation, the only one which emphasizes study in non-American as well as American fields. The doctoral program focuses on policy history. Students examine the interrelationships among politics, institutions, and society, the ways in which policies have often been transformed when put in place, and the consequences of policy decisions. Students are encouraged to work comparatively, across national boundaries. All students whose focus is on American history must take an Asian or Latin American field, as well. M.A. and M.A.T. students choose from six field groups: Medieval History, Early Modern Europe or Modern Europe, American History to 1877 or American History since 1877, Latin America, Policy History or Public History, or East Asia. M.A. and M.A.T. students may choose policy history as a major or minor field group. Ph.D. students must choose policy history as a major field group.

Prerequisites to Graduate Work

Graduate study in history requires a minimum of 24 hours of

undergraduate work in history. A maximum of six hours in related areas may be accepted as part of the 24-hour requirement.

Admission Procedure

Applicants seeking admission to the graduate program in history should follow the instructions outlined in the "Graduate Admission" section of this catalog.

In addition to the general Graduate College requirements, an applicant should submit the following items along with the application for admission form: (1) at least three letters of recommendation from professors of history or a related field and (2) evidence of ability to do research and writing, such as a copy of a seminar paper or thesis.

Degree Requirements

Master of Arts

Candidates may pursue the M.A. degree under one of two plans.

Plan I: Thirty-six semester hours of graduate credit are required. Candidates must write a thesis and complete an oral examination on the thesis and the field of history in which it lies. This plan includes a language requirement which may be fulfilled either through a dictionary reading knowledge of an approved foreign language or the satisfactory completion of HIST 602, Quantitative Methodology; SOC 369, Introductory Statistics; or CS 500, Computing for

History

Graduate Students. Plan I is recommended for students who plan to pursue doctoral work in history.

Plan II: Thirty-two semester hours of graduate credit are required. Candidates must complete a comprehensive oral examination in two fields of history. Preparation for the examination normally entails the reading of at least six books in each field selected in consultation with two examiners.

Under both plans, a student's program must include a course in historical methods, one course in historiography, and two graduate seminars.

Master's degree candidates may pursue an emphasis in the field of public history, which provides professional education in archives and museum management, local history, and other endeavors through which historians cooperate with larger publics. This program is integrally tied to other graduate offerings in history. Among the course work required for completion of the degree are ten hours in public history courses, a thesis, and an internship involving on-site work experience.

Master of Arts in Teaching

M.A.T. students are required to take 36 semester hours of course work of which 24 to 28 must be in history and eight to 12 must be in education. There is a final written comprehensive examination in history.

Doctor of Philosophy

General Requirements: The doctoral program in history requires the completion of 90 hours of approved graduate credit beyond the bachelor's degree, including a maximum of 30 hours of credit for research on the dissertation. All candidates for the Ph.D. degree must spend at least two consecutive semesters beyond the master's degree, or equivalent, in residence at the University, during which time a minimum of six hours of work must be completed satisfactorily each semester.

The Ph.D. foreign language requirement may be satisfied in one of the following ways: (1) passing a dictionary-assisted reading proficiency examination in two foreign languages; (2) passing a dictionary-

assisted reading proficiency examination in one foreign language plus completion of HIST 602 (Quantitative Methods) and satisfactory completion of an additional advanced course in CS, SOC, ECON, or MATH/STAT to be chosen by the student in consultation with an advisor in one of the four departments; (3) demonstration of high proficiency in one foreign language.

In the case of students from countries where English is not the language of instruction, satisfaction of the University's English proficiency requirement satisfies the history foreign language requirement, except when research is to be conducted in a language other than English or the student's native tongue.

History Requirements: All candidates for the Ph.D. will be required to complete HIST 652 (Historiography) and HIST 694 (Methodology) unless they have equivalent training in these areas. Students seeking exemption from HIST 652 or HIST 694 must submit proof to the graduate coordinator that the training they have acquired elsewhere is the equivalent of that provided by these courses. Students must prepare for examinations in three fields, one of which will be policy history with a focus in a specialized area (e.g., American foreign policy, 20th Century U.S., U.S. Constitutional history, 20th Century Europe, Modern Russia, Modern East Asia, gender and policy). Students whose focus is U.S. or European history must take a field in Asian or Latin American history. All candidates for the Ph.D. degree will be required to spend at least two consecutive semesters beyond the Master's degree (or equivalent) in residence at the University.

Examinations: Admission to Ph.D. candidacy is granted following the successful completion of preliminary examinations, which consist of written and oral exercises covering the student's four fields.

Dissertation: Dissertations may be written in areas of American, European, Latin American, and East Asian history, but all dissertations must have a focus on private or public institutional decision-making processes.

Courses for Graduates

HIST 501. Caesar and Christ: Social Worlds of Late Antiquity and Early Christianity (4) Fall. 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 511. Modern Mexico (4) Spring. 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 513. Caribbean and Spanish Main (4) Spring. 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 514. Canada (4) Fall. 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 515. Spain and Portugal (4) Spring. 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 519. Westward Movement in America (4) Fall. Development of Trans-Mississippi West during 19th century; American Indian, territorial expansion, sectional conflict, economic development.

HIST 521. American Colonial History, 1492-1763 (4) Fall. European backgrounds of American history, establishment of European settlements and institutions, emergence of colonial culture, conflict between France and England for New World.

HIST 522. American Revolutionary Era, 1763-1789 (4) Causes, course, and consequences of the movement for independence in Colonial British North America.

History

Detailed analysis of strategies and campaigns of the War for Independence and of the development of state and national constitutional republicanism.

HIST 525. Early National U.S., 1789-1848 (4) Fall. Development and growth of American social, political, and economic institutions from the ratification of the Constitution to the Mexican War. Topics include the emergence of new ideologies of race and gender, the market revolution, slavery and the Old South, antebellum religion and reform.

HIST 526. Era of Civil War and Reconstruction, 1848-1877 (4) Spring. Examination of the social, political, constitutional, and cultural aspects of sectionalism, secession, military conflict, and reconstruction. Topics include the collapse of the political system in the 1850s, the emergence of the Republican party, emancipation and the African-American experience, racism in postbellum U.S. society.

HIST 527. American South, 1865-Present (4) Spring. 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 528. U.S., 1877-1917 Industrialization and Reform (4) Fall. Transformation of U.S. from agrarian nation to industrialized society and attendant political and economic problems: urbanization, immigration, farmers' protest, rise of political reform movements, the Progressive Movement.

HIST 529. U.S., 1917-1945 Normalcy and Depression Between the Wars (4) Spring. Political, economic, and social impact on America of increasing role of the federal government; World War I; the "Twenties"; the Great Depression; World War II.

HIST 530. U.S., Since 1945: Affluence and Anxiety (4) Fall. Politics: persistence and demise of the New Deal party system; congressional coalitions. Public policy: Fair Deal, Eisenhower Equilibrium, Great Society, Reagan Revolution. Society: Red Scare, prosperity and poverty, conformity, black struggle, student revolt, challenge to sexism, Middle

America, and reaction to protest.

HIST 533. American Constitutional History (4) Fall. 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 536. American Social History (4) Fall. An examination of 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.

HIST 537. U.S. as World Power in 20th Century (4) Fall. 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 542. Roman Revolution: From Gracchi Through Caesar Augustus (4) Spring. 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 544. The Making of Europe (4) Spring. 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 546. Early Modern Europe, 1450-1750 (4) Fall. Comparative study of European societies in an age of transition. Examines the Renaissance, the Reformation, the growth of absolutism and constitutionalism, economic expansion, social change, intellectual development, and the emergence of baroque art forms.

HIST 548. Modern European

Society and Thought (4) Spring. Major social and intellectual trends in modern European society, including liberalism, socialism, Marxism, fascism, existentialism, and post-war disillusionment.

HIST 551. Classical Hellenism (1000-400 B.C.) (4) Fall. 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 554. European Foreign Relations, 1914-Present (4) Fall. 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 558. England, 55 B.C.-1689 (4) Fall. 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 559. Great Britain, 1689-Present (4) Spring. 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 562. British Empire-Commonwealth (4) Fall. Rationale of imperialism, expansion of Britain overseas, development of colonial holdings, evolution of concept and reality of Commonwealth of Nations.

HIST 564. History of France Since 1815 (4) Spring. 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 569. Medieval and Imperial Russia, 900-1825 (4) Fall. Radical, political, and religious origins; development of autocracy;

History

national and imperial problems to death of Alexander I.

HIST 570. Modern Russia, 1825-Present (4) Spring. Major topics in 19th and 20th century Russian history; political systems and personalities, territorial control and foreign relations, economic development, dissidence and revolutionary movements, social structure and demographic change.

HIST 573. Revolution and Tradition in Modern China (4) Spring. 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 576. Japan: New Super-state (4) Spring. 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 580. Seminar in History (4). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

HIST 582. Problems in History (4). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

HIST 584. Directed Readings in History (2-4). Supervised independent readings in a focused area of study.

HIST 586/587. Workshop in History (1-4). Study of a particular topic in an intensive format. Topics vary. HIST 586 for a grade; HIST 587 graded S/U.

HIST 601. Historical Methods (4) Fall. 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. Graded S/U.

HIST 602. Quantitative Methodology (4) Spring. Quantitative methodology in historical research, examination of quantitative sources, and training in their use.

HIST 610. Local History (4).

Selected topics in early modern and modern European, American, and East Asian local history. Emphasizes the comparative, cross-cultural, and interdisciplinary nature of the study of local history.

HIST 612. Introduction to Policy History (4) Fall. An overview is provided of ways in which historical perspectives may shed light on contemporary policy issues. Students are introduced to basic policy history issues and methodologies.

HIST 614. Gender and the State in Modern Europe (4) Spring. Comparative examination of the ways various forms of state (monarchal, liberal-democratic, fascist, communist) have shaped and responded to changes in gender roles and the family.

HIST 615. Colloquium: United States and Canadian Indian Policies (4). Readings, discussion, and research on the formation and consequences of U.S. and Canadian policies toward Indians during the last two centuries.

HIST 616. Colloquium: 1930s U.S. Federal Policies at the State and Local Levels (4). The effects of state and local political, economic, and social factors on the implementation of federal policies. Emphasis on relief and public works agencies.

HIST 617. Colloquium: U.S. National Security Policy Since 1945 (4). An overview of the scholarship on the history of U.S. national security policy since World War II. Based on intensive reading and discussion, the colloquium will analyze the principal historiographical and methodological issues in the study of national security policy.

HIST 618. History of American Science Policy (4) Fall. An exploration of the historical origins and development of policies toward major American scientific issues and concerns.

HIST 619. Colloquium in Comparative Industrial Policy (4). Introduction to industrial development policies in 19th and 20th century societies. The course involves reading and evaluation of the history of industrial policy, and preparation of a paper that comparatively analyzes industrial policies and their consequences in a historical frame-

work.

HIST 621. Problems - Early American History (4) Fall. Intensive study of selected problems, such as the nature of the colonial system, social aspects of the American Revolution, reasons for the break with England; emphasis on bibliography and on variant interpretations.

HIST 626. Problems - 19th Century America (4) Spring. Selected themes and historiographical problems, such as development of political parties, reform movements, territorial expansion, Civil War and reconstruction, response to industrialism.

HIST 629. Problems - 20th Century America (4) Fall. Principal works and interpretations of American political and diplomatic history in the 20th century.

HIST 635. Problems - American Social and Intellectual History (4) Spring. 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 647. Problems in Modern European History (4) Fall. Major interpretive problems in European history since 1750.

HIST 651. American Historiography (4) Fall. American historical writing in 19th and 20th centuries; emphasis on principal philosophical tendencies.

HIST 652. Historiography (4) Spring. Classical historical writers and schools; major trends in contemporary historical writing; emphasis on conceptual and methodological problems involved in historical investigation and writing.

HIST 654. Museology (4). The focus shall be upon the philosophy of museums, the functions of museums from collection and classification to preservation and exhibition, and public relations aspects of a museum's existence. Considerable emphasis shall be placed upon the nature and significance of the history of material culture.

HIST 656. Archives Administration (4) Fall. Professional ethics and standards, principles of planning, public relations, programs, financial matters, and director-trustee relations. Three hours of lecture and two

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hours of laboratory.

HIST 657. Historical Society Administration (4) Spring. Implementation history; curatorial concepts and responsibilities, educational and cultural activities, research, and publications. Three hours of lecture and two hours of laboratory.

HIST 658. Oral History: Theory, Methods, and Use (4) Fall. The course shall provide an overview of the historiography of oral history; of the uses of oral history in the documentation of various aspects of local history; and of the numerous steps and skills involved in the research, conduct, and completion of oral history interviews and projects.

HIST 662. Great European Revolutions (4) Spring. 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 670. Graduate Readings in History (2-4). Supervised individual readings to meet student's special needs. Prerequisite: consent of instructor and department. May be repeated.

HIST 674. Problems in Modern East Asian History (4) Spring. Selected topics, primarily political and diplomatic, in East Asian history in 19th and 20th centuries. May be repeated.

HIST 676. Seminar in American Culture Studies (4) Spring. 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 676 is also listed in this catalog as ACS 676. During a given semester, a student may receive credit for only one of these courses.

HIST 680. Seminar in History (4). Systematic study of selected topics in history. Content of seminar varies from semester to semester. May be repeated on approval of graduate coordinator.

HIST 682. Problems in History (4). Study of selected aspect of the

discipline, particular area of concern, or question put forward for consideration.

HIST 684. Directed Readings in History (2-4). Supervised independent readings in a focused area of study.

HIST 686. Independent Study in History (2-4). Supervised independent completion of a project other than readings.

HIST 688. Internship in Public History (4). Provides practical experience working as a historian to student concentrating in Public History. Possible work sites include museums, archives, government agencies, businesses, historical societies, and parks.

HIST 690. Directed Research in Policy History (2-4). Supervised independent research.

HIST 694. Workshop in History (1-4) On demand. Study, readings, and development of materials related to needs of history teachers. Topics vary from semester to semester.

HIST 695. Workshop in History (2-4). Study of a particular topic in an intensive format. Topics vary. Graded S/U.

HIST 699. Thesis Research (1-12). Credit for thesis study. Enrollment in excess of six hours acceptable for a Plan I master's degree, but no more than six hours creditable toward degree. Graded S/U.

HIST 712. Research Seminar in Policy History (4). Students specializing in policy history will work with all faculty participants in the policy history program and will prepare an article-length, professional quality research paper. Integral to History 712 will be the inclusion of guest speakers from other institutions who are nationally-known specialists in policy history.

HIST 722. Seminar: American Revolution and Early United States (4) Spring. Directed research on economic, political, social, intellectual, and military aspects of revolutionary and early national period (1763-1815).

HIST 725. Seminar: American Indian (4) Spring. 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 734. Seminar: American Social and Intellectual History (4) Spring. Selected problems and topics in 19th and 20th century American social, cultural, and intellectual history. Culminated by preparation of article for professional journal.

HIST 736. Seminar: America in the 1930s (4) Spring. Topics in political, economic, social, cultural, and intellectual history of 1930s.

HIST 738. Seminar: 20th Century American Diplomacy (4) Spring. Topics and problems of American foreign policy since 1900.

HIST 751. Seminar: Modern European History (4) Fall. Selected problems in modern European history.

HIST 771. Seminar: Modern Russian and Soviet History (4) Fall. Topics in Russian and Soviet history; introduction to relevant historiographical tools and to problems of conducting research in Russian and Soviet history.

HIST 780. Seminar in History (4). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

HIST 782. Topics in History (4) On demand. Study of selected topics of subject areas within field of history.

HIST 784. Directed Readings in History (4). Supervised independent readings in a focused area of study.

HIST 786. Independent Study in History (4). Supervised independent completion of a project other than readings.

HIST 788/789. Internship in Policy History (3-9). Supervised practical field application or clinical experience offered on an individual basis. HIST 788 for a grade; HIST 789 graded S/U.

HIST 790. Directed Research in Policy History (2-4). Supervised independent research.

HIST 797. Supervised Practicum in History (1-4). Supervised practical field application or clinical experience offered on an individualized basis. Graded S/U.

HIST 798. Readings for Preliminary Examination (1-12). Supervised independent readings in preparation for the doctoral preliminary examina-

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tion. Graded S/U.

HIST 799. Dissertation Research (1-4). Credit for disserta-

tion study. Enrollment in excess of 30 hours acceptable for a Ph.D. degree but no more than 30 hours creditable

toward degree.

Human Movement, Sport, and Leisure Studies

Master of Education

Bonnie Berger, Director
Janet B. Parks, Graduate Coordinator
Room: 112 Eppler
Phone: 419-372-6906

Graduate Faculty

Professors - Bonnie Berger, Ed.D.; David Groves, D.Ed.; Janet Parks, D.A.; Mary Ann Robertson, Ph.D.

Associate Professors - Pamela Allison, Ed.D.; Jacquelyn Cuneen, Ed.D.; Lynn Darby, Ph.D.; Susan Gavron, P.E.D.; Vikki Krane, Ph.D.; Stephen Langendorfer, Ph.D.; Julie Lengfelder, Ph.D.; Becky Pissanos, Ed.D.; Jerome Quarterman, Ph.D.; Patricia Shewokis, Ph.D.; Adrian Turner, Ph.D.

Assistant Professors - Michael Liang, Ph.D.; Lisa McClung, Ph.D.; John McMillen, Ph.D.; Raymond Schneider, Ph.D.; William Skelly, Ph.D.; Nancy Spencer, Ph.D.

The **School of Human Movement, Sport, and Leisure Studies** (HMSLS) offers the **Master of Education** degree. The M.Ed. program is designed to expand upon the undergraduate experience with more opportunities for research, critical thinking, and analysis within a specialization. The three specializations available are: developmental kinesiology (the study of human movement from a lifespan perspective), recreation and leisure studies, and sport administration. Within developmental kinesiology, students may concentrate in physical education teacher education, motor learning, motor development, sport/exercise physiology, or biomechanics. Among the focus areas in recreation and leisure are environmental issues, disability sport, gerontology, and tourism. In sport administration, students may concentrate in areas such as marketing, promotion,

administration, facility management, and psychosocial aspects of sport.

Prerequisites to Graduate Work

Prerequisites include a bachelor's degree from an accredited school and a minimum GPA of 2.7. There are also specific admission requirements for each specialization. Deficiencies in prerequisite course work are completed before graduate course work and do not count toward completion of the degree. Students are required to consult with their advisor prior to starting any course work.

Admission Procedure

Applicants seeking admission to the M.Ed. program should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Applicants who wish to be considered for graduate assistantships must have a 3.0 GPA and complete additional forms available from the School of HMSLS. All students must submit GRE scores as part of the admission process.

Degree Requirements

Master of Education

The M.Ed. degree is offered under one of two plans.

Plan I: Candidates must complete a minimum of 30 semester hours of graduate credit, including a thesis.

Plan II: Candidates must complete a minimum of 33 semester hours of graduate credit, including a major project.

Courses for Graduates

HMSL 580. Seminar in HMSL (1-3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

HMSL 584. Introductory Readings in HMSL (1-2). Independent study, supervised study or selected problems, and readings. Proposed program of study must be approved by instructor prior to registration.

HMSL 586. Workshop HMSL (1-3). Study of a particular topic in an intensive format. Topics vary.

HMSL 588. Internship in HMSL (1-3). Supervised practical field

application or clinical experience offered on an individual basis.

HMSL 606. Teaching Movement Across the Life Span (3). A life span perspective on fitness and motor skill instruction in a variety of kinesiological settings.

HMSL 608. Analysis of Teaching in Physical Education (3). Principles and techniques in analyzing instruction in physical education; quantitative and qualitative analytic strategies explored; opportunities for self-evaluation and development of research competency in analysis of teaching.

HMSL 609. Contemporary Philosophy in Physical Education (3). Analysis of contrasting philosophies in physical education leading to the development of individual philosophical positions to guide professional action.

HMSL 610. Physical Education Curriculum Theory and Design (3). Examination of theoretical perspectives and the curriculum design process in physical education.

HMSL 611. Measurement and Evaluation in Physical Education and Exercise Science (3). Validity and reliability theory applied to norm-referenced and criterion-referenced measurement; critique and development of techniques for evaluating performance characteristics associated with physical education and exercise science.

HMSL 612. Motor Learning and Control (3). Analysis of learning variables and control mechanisms associated with motor skill acquisition and performance.

HMSL 613. Motor Development (3). Observation and description of changes in motor behavior across the life span. Emphasis on endogenous and environmental factors that affect motor development in education, sport, and recreation activity settings.

HMSL 614. Programming in Physical Education for Special Populations (3). Examination of special populations in relation to their needs, interests in movement experiences. Also, etiology of disabil-

ity, observation strategies, and assessment in a mainstreamed or self-contained setting.

HMSL 615. Electrocardiography in Health and Exercise (1). Techniques for recording/analyzing the ECG are presented. Electrophysiology of the heart, various rhythms, heart blocks, and effects of pharmacologic agents will be examined. Prerequisite: six hours of physiology and consent of instructor.

HMSL 616. Laboratory Techniques in Exercise Physiology (3). Exercise physiology tests and procedures, laboratory guidelines, and supervision. Emphasis on choice and implementation of proper procedures; calibration; operation and maintenance of exercise physiology equipment. Two lectures; one two-hour laboratory.

HMSL 617. Biomechanics (3). Biomechanics as applied to sports and related physical activities. Analysis will be based on selected mechanical principles.

HMSL 618. Physiology of Exercise (3). Physiological responses to exercise are studied. Areas include metabolism, cardiorespiratory components, body composition, neuromuscular concepts, heat stress, applied nutritional aspects, and ergogenic aids.

HMSL 619. Sports Conditioning (2). Basic knowledge and understanding of scientific principles of sports conditioning with application to specific sports and physical activity in general. Prerequisite: undergraduate course in human physiology or exercise physiology.

HMSL 620. Therapeutic Recreation Systems (2). Theoretical and philosophical foundations of therapeutic recreation; history, role function, programming, and assessment of therapeutic recreation in treatment and rehabilitation settings.

HMSL 621. Administrative Management in Leisure and Recreation Services (3). Theory and application of methods and technique; acquisition and allocation of funds; process approach to supervision, training, development, and evaluation of recreation personnel.

HMSL 622. Foundations of Recreation and Leisure Experiences (3). Recreation and leisure

philosophies; leisure behavior patterns; outcomes from recreation participation; bases of enjoyment in relation to leisure pursuits.

HMSL 624. Program Design and Strategies of Recreation and Leisure Services (3). Design principles and strategies in the development of Recreation and Leisure programs: facilitating approaches; leisure education, leisure counseling; program evaluation and management concerns in program administration.

HMSL 627. Seminar in Interpretive Services (3). Research implications for more effective interpretive services; depreciative behavior and environmental understandings as influenced by interpretive services; evaluative processes to determine effectiveness.

HMSL 628. Planning Leisure Lifestyles (3) On demand. Investigation of decision-making processes applied to life planning for leisure settings; focus upon development and implementation of programs for wellness and life satisfaction for professionals in leisure program development.

HMSL 629. Legal Aspects of HMSL (3). Legal authorization for services and powers; liabilities for operations based on tort, contract, violation of law; constraints on program administration and management, including human rights, health and sanitation, safety, personnel, areas and facilities; risk management.

HMSL 630. Administrative Processes of Intercollegiate Athletics (3). An in-depth study of the underlying processes of leading and managing intercollegiate athletics programs.

HMSL 631. Athletic and Recreation Facility Planning and Management (3). Theory and practice concerning problems related to construction, programming, financing, and evaluation.

HMSL 632. Budgeting and Planning for Sport and/or Leisure Enterprises (3). Budgeting and planning aspects such as spreadsheets, budgeting, documents, budget analysis techniques, and other aspects specific to the successful operation of a sport and/or leisure enterprise. Prerequisites: any accounting, budgeting, or finance

course or consent of instructor.

HMSL 633. Marketing Strategies in Sport and Leisure Services (3). An investigation of how marketing in sport and leisure services differs from traditional product-oriented marketing. Focus on developing unique marketing strategies and processes for successful management of sport and leisure service programs and facilities. Prerequisite: GBA 540 or MKT 300.

HMSL 634. Critically Evaluating Contemporary Issues in HMSLS (3). Critical evaluation of issues in human movement, sport, and leisure through analyses of scholarly and professional literature; emphasis on creating principled, reflective resolutions for the issues.

HMSL 635. Sport and Society (3). Cultural trends motivating forces, socializing processes, and other psycho-social parameters of American sport. Seminar-type course with the opportunity for individual research and class interaction.

HMSL 636. Psychological Aspects of Sport and Physical Activity (3) Spring. Examination of psychological theories related to the social and cognitive aspects of sport, exercise, and movement. Prerequisite: SMD 365 and 366 or equivalent, or consent of instructor.

HMSL 637. Sport and Higher Education (3). Examines collegiate sport in America higher education and the relationship of athletics to the mission of the institution. Special focus on current benefits and problems associated with athletics programs and student-athletes.

HMSL 638. Applied Sport Psychology (3) Spring. Sport psychology strategies and techniques to enhance satisfaction and performance in sport and exercise (e.g., imagery, concentration, confidence development, relaxation). Prerequisite: SMD 365/366 or equivalent, or consent of instructor.

HMSL 640. Governance of Intercollegiate Athletics (3). An in-depth study of the nature and scope of intercollegiate athletics programs.

HMSL 650. Seminar in Exercise Sciences (1). Selected topics in exercise sciences including sports physiology, sports medicine, cardiac rehabilitation, biomechanics, and

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other related areas will be analyzed and discussed. Prerequisites: HMSL 618 or equivalent, or consent of instructor.

HMSL 651. Interpretation of Quantitative Research in HMSL (2). Strategies and tools for analyzing and interpreting results from research using quantitative designs. Critique of contemporary quantitative literature in developmental kinesiology, leisure, and sport. Prerequisites: HMSL 653 and EDFI 641 or other statistics course, or consent of instructor.

HMSL 652. Teaching HMSL at College Level (1-2). Focus on pedagogic aspects of HMSL discipline within higher education. Techniques, strategies for utilization of HMSL concepts, and procedures in two-year, four-year, and/or graduate institution.

HMSL 653. Research Methods in HMSL (3). Identification and evaluation of research problems and designs; use of library resources; data gathering; writing of theses and research reports.

HMSL 654. Interpreting Qualitative Research Results in HMSL (2) On demand. Strategies for analyzing and interpreting research data gathered in studies using qualitative design. Critique of existing qualitative literature in these human movement fields. Prerequisite: HMSL 653.

HMSL 655. Foundations of Travel and Tourism (3) Fall. Study of the interrelationships that affect tourism; research in tourism; applications to professional practices in travel and tourism. Prerequisite: HMSL 621 or consent of instructor.

HMSL 656. Strategic Planning for Travel and Tourism (3) Spring. Planning with emphasis on community participation; assessment in a service-based industry; economic impacts. Management concepts. Prerequisite: HMSL 621 or consent of instructor.

HMSL 657. Policy Development for Travel and Tourism Agencies (3) Summer. Methods of measurement and analysis of the assessing of system components and their impact; development of organizational strategies to synthesize system components to achieve agencies, goals, and objectives. Prerequisite: HMSL 621 or consent of instructor.

HMSL 680. Seminar in HMSL (1-3). Selected topics within HMSLS disciplines. Content varies from one year or semester to next. May be repeated.

HMSL 682. Topics in HMSL (1-3). Study of selected aspect of a discipline, particular area of concern, or question put forward for consideration within HMSLS.

HMSL 684. Directed Readings in HMSL (1-2). Supervised independent readings in a focused area of study.

HMSL 686. Independent Study in HMSL (1-2). Supervised independent completion of a project other than readings.

HMSL 688. Internship, Field Placement, or Practicum in HMSL (1-3). 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.

HMSL 690. Directed Research in HMSL (1-4). Supervised independent research on approved delimited topics. May run for longer than one semester. Proposal must be approved by instructor/supervisor prior to registration. Prerequisite: 3.0 GPA and HMSLS 653 or equivalent.

HMSL 692. Research Group in HMSL (1-3). A group research project accomplished in the laboratory of or under the auspices of a designated instructor.

HMSL 694. Workshop on Current Topics in HMSL (1-3). Study, readings, and development of materials related to needs of HMSL practitioner. Topics vary from semester to semester. May be repeated on approval of student's advisor if graduate program department credit desired or at discretion of student for certification or for personal growth.

HMSL 695. Workshop in HMSL (1-3). Study of a particular topic in an intensive format. Topics vary. Graded S/U.

HMSL 696. Supervised Practicum in HMSL (1-3). Supervised practical field application or clinical experience offered on an individualized basis.

HMSL 699. Thesis Research in HMSL (1-12). 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. Prerequisite: 3.0 GPA and HMSLS 653 or equivalent. Graded S/U.

Intervention Services (DIS)

Master of Arts

Master of Education

Specialist in Education

Richard Wilson, Director
Peterann Siehl, Graduate

Coordinator - Guidance and Counseling

Jay Stewart, Graduate Coordinator - Rehabilitation Counseling

Audrey Ellenwood, Graduate Coordinator - School Psychology

Eric Jones, Graduate Coordinator - Special Education
Room: 451 Education Building
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Graduate Faculty

Professors - Martha Gaustad, Ph.D.; Eric Jones, Ed.D.; W. Thomas Southern, Ph.D.; Ellen Williams, Ph.D.; Richard Wilson, Ph.D.

Associate Professors - Sherlon Brown, Ph.D.; Lessie Cochran, Ph.D.; Edward Fiscus, Ph.D.; Veronica Gold, Ph.D.; Joseph Havranek, Ed.D.; Colleen Mandell, Ed.D.; Linda Mandlebaum, Ph.D.; Peterann Siehl,

Ph.D.; Jay Stewart, Ph.D.

Assistant Professors - Audrey Ellenwood, Ph.D.; Gregory Garske, Ph.D.; Susan Huss, Ph.D.

The **Division of Intervention Services (DIS)** offers programs leading to the **Master of Arts, Master of Education, and Education Specialist** degrees. The Division also offers the **Master of Rehabilitation Counseling** degree. (See "Rehabilitation Counseling" in this section of the catalog for further information.) Students major in guidance and counseling, school psychology, or

Intervention Services

special education. The guidance and counseling programs are designed to provide a broad preparation in the theoretical foundations and the technical skills necessary for employment as a professional counselor. Within the special education major, the following specializations are available: specific learning disabilities; developmentally handicapped; multihandicapped; severe behavioral handicapped; hearing impaired; gifted and talented education; and early education of children with disabilities.

The **Master of Education in Counseling** program is designed for individuals who seek positions as counselors in elementary, middle, or secondary schools. Persons who complete this program will satisfy the academic requirements for a K-12 school counselor certificate in the state of Ohio. Certification is contingent on three years of teaching experience and possession of a valid teaching certificate.

The **Master of Arts in Counseling** is designed to meet the needs of students wishing to pursue counseling careers in mental health agencies, the criminal justice system, substance abuse facilities, religious settings, or colleges. The program satisfies the academic requirements of the Ohio Counselor and Social Worker Board for status as a Professional Counselor.

Certified teachers can add additional areas of certification and/or validation to their teaching certificates by completing specifically designated course work. Some certification areas require the successful completion of an NTE Specialty Area Test. Currently five certification areas are available to students who hold a valid Ohio teaching certificate and wish to pursue certification at the graduate level: specific learning disabilities, severe behavior disorders, developmental handicaps, hearing impaired, and multihandicapped. Teaching validations in early childhood special education and education of gifted and talented students are also available.

The specific learning disabilities program is designed to provide specialized training in theoretical foundations and in practical technical

skills for individuals planning to teach children and adolescents (grades K-12) who have specific learning disabilities (SLD). Students enrolled in this specialization become knowledgeable in assessment/evaluation of learning disabilities, development of service options, curriculum alternatives and modifications, behavioral management, current trends and issues, and research.

Students who pursue severe behavior handicapped (SBH) certification receive training in the characteristics, assessment, and identification of students with SBH, delivery of academic and behavior management methods, current issues, and research. Teachers certified in the area of SBH are qualified to teach in a variety of settings where students with behavior disorders are educated.

The developmentally handicapped program (DH) is designed for individuals planning to work with students in grade levels K-12 who have developmental disabilities. Students in this program study assessment, development of educational service options, behavior management, curriculum development, current trends and issues, collaborating with parents, and research.

Students in the hearing impaired specialization (HI) study the structure, acquisition, and development of language; speech and hearing mechanisms; methods of teaching speech and speech reading; curriculum development; educational guidance of students with hearing handicaps; and communication systems, current trends, issues, and research.

The multihandicapped program (MH) is designed to prepare individuals to work with students at all age levels who have multiple handicaps. Students become knowledgeable and competent in behavior management; prevocational and vocational skill development, curriculum development; community instruction; provision of adult services; and development of career options.

The early education of the handicapped program is designed for individuals planning to work with young children, from birth through five years of age, which requires knowledge and skills in both early

childhood education and special education. The program includes course work and supervised experiences in both disciplines. Individuals completing this master's program will meet all the requirements for certification or validation in the following areas: pre-kindergarten certification or validation; early education of the handicapped validation; and early intervention certification (issued through the Ohio State Department of Mental Retardation and Developmental Disabilities). A pre-kindergarten or special education certificate is required for the early education of the handicapped validation.

Students in the gifted and talented education program acquire skills in curriculum development; development of critical and creative thinking skills; and development of independent learning abilities. A validation in the education of the gifted and talented is required to work with this population in Ohio's schools, and must be applied to an existing teaching certificate. The Department offers a full array of courses leading to a K-12 validation in teaching the gifted and talented as well as a specialization in gifted and talented within the M.Ed. program. The sequence provides a solid grounding in the history of the field; techniques for identification, assessment, and evaluation; techniques for modification of curriculum; and methods for a variety of school settings.

The school psychology major provides a broad background of theoretical and functional training as well as an intensive and meaningful educational experience through a consultation and educational change process program. It is designed for individuals planning to work as school psychologists in the school or mental health setting. Completion of the academic program leads to the degree of Master of Education; subsequent completion of the supervised experience and successful completion of the NTE specialty area test for school psychology results in Ohio certification in school psychology.

Prerequisites to Graduate Work

Applicants planning to major in special education must possess a

Intervention Services

valid baccalaureate degree in special education, elementary education, secondary education, or in a related field. Applicants must meet academic and personal qualifications, as determined from an interview with the departmental graduate coordinator, and as established by the departmental graduate advisory committee.

Applicants planning to major in school psychology are expected to have minimal background training equivalent to 8 to 10 semester hours in psychology, including courses in general psychology, child development, human learning, and psychology of adjustment.

If prerequisite deficiencies exist, additional course work may be required as a condition of admission. Deficiencies may be repaired concurrently with the beginning of the graduate program but such course work does not count toward degree requirements.

Admission Procedure

Applicants seeking admission to the graduate programs in special education and school psychology should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants should also contact the Department of Special Education for additional admission materials and requirements.

Degree Requirements

Master of Education in Special Education

Candidates must have completed, or will complete, the basic certification requirements for teaching in the state of Ohio for their area of specialization.

Candidates must complete a minimum of 33 semester hours of 600-level credit. The following ten semester hours of course work are required: EDSE 649; EDSE 680; EDFI 641; and EDFI 642 or REHB 678. Additional requirements are determined by the areas of specialization.

Candidates choose from seven areas of specialization: specific learning disabilities; developmental handicaps; multihandicaps; severe behavioral handicaps; hearing impairments; gifted and talented education; and early education of the children with disabilities. For specific

specialization requirements, contact the department graduate coordinator.

Certification Program: The Department offers a certification and/or validation program for students possessing a baccalaureate degree and a teaching certificate or validation who choose not to pursue a M.Ed. degree but desire to meet certification requirements in the state of Ohio for teaching in one or more of the following areas: specific learning disabilities; developmentally handicapped; or multihandicapped.

Master of Education in School Psychology

Students must complete 33 to 45 semester hours of graduate credit. Candidates typically take the following courses: EDSE 654, 676, 698; PSYC 708, 734; REHB 675; EDFI 641, 642, 627, 671, 672.; COUN 675, 776, 679.

A pattern of additional courses is required for students who do not have a valid teaching certificate and typically includes the following courses: EDSE 650, 651, 672, 649, and 660, and EDAS 621. EDSE 672 is directed toward observation and participation in the normal school processes under supervision within a school setting.

After completion of a program of courses approved for the degree and the awarding of the M.Ed., candidates are assigned to a supervised experience (internship) in a school district approved by the coordinator of the school psychology program and the Ohio Department of Education. The supervised experience involves nine to ten months of service under the aegis of a certified school psychologist. Registration for BGSU course work as a full-time student is required for the supervised experience. The intern is classified as an employee of the school district and is remunerated for professional services during the supervised experience. The intern is supervised either by a member of the University faculty or, in cases where an internship is completed outside northwest Ohio, by a member of the faculty from the nearest university that has an approved program for the preparation of school psychologists (with permission of the University coordinator of school psychology program).

Specialist in School Psychology

Students must complete 47 semester hours of graduate credit. Typically, students must have a master's degree in school psychology prior to entrance into the specialist degree program. The master's degree must reflect the NCATE/NASP approved courses offered at the BGSU master's level. If the master's degree has deficits, additional courses to fulfill the requirement for license/certification in school psychology will be required.

Candidates typically take the following courses: EDSE 656, 657, 658, 671, 673, 674, 677, 689, 789, 780, and complete a change project.

After completion of courses and practica work, candidates are assigned to a supervised internship in a school district approved by the coordinator of the school psychology program and the Ohio Department of Education. The internship experience involves nine to ten months of service under the aegis of a certified school psychologist with a minimum of three years of experience. Registration for BGSU course work as a full-time student is required for the internship experience. The intern is classified as an employee of the assigned school district and is remunerated for professional services during the internship year. The intern is supervised by a member of the school psychology faculty or, in cases where an internship is completed outside of Northwest Ohio, by a member from the school psychology faculty at the nearest university that has an approved program for the preparation of school psychologists (with permission of the University coordinator of the school psychology program).

Special Education Courses for Graduates

EDSE 521. Young Children with Special Needs in Early Childhood Programs (3) Fall. Understanding of infant, toddler, and preschool children with special needs in integrated learning environments. Awareness of specific disabilities and their impact on development, family life, and education.

EDSE 531. Education of Exceptional Students (3) Fall, Spring. Problems of exceptional school

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students: mentally retarded, learning and behavior disorders, speech-and-hearing impaired, visually handicapped, gifted and creative; etiology, diagnosis, personal-social problems, and prognosis.

EDSE 532. Principles and Purposes of Special Education (2)

Fall, Spring. Functions of public schools and governmental agencies in providing educational services for exceptional children.

EDSE 533. Education of Students with Mental Retardation (2)

Fall, Spring. Understanding and teaching educable and trainable students with mental retardation: etiology diagnosis, theory, educational procedures.

EDSE 537. Occupational Orientation and Job Preparation for Individuals with Disabilities (3)

Fall, Spring. Responsibilities of special class teacher for developing employable skills. Prerequisites: EDSE 531, EDSE 533, and EDSE 551.

EDSE 538. Problems in Evaluating, Selecting, and Adapting Specialized Instructional Materials for Students with Disabilities (3)

Fall, Spring. Analysis, comparison, and use of materials with pupils of specified exceptionality in terms of educational and administrative merit. Prerequisites: EDSE 531 and EDSE 551; or consent of department.

EDSE 540. Curriculum Development and Methodology for Teaching Students with Moderate to Profound Handicaps (3)

Fall, Spring. Materials and techniques emphasizing development and appropriate skills with practical applications. Prerequisites: EDSE 531 and EDSE 551; or consent of instructor.

EDSE 545. Adult Service Options for Persons with Multiple Disabilities (3)

Fall, Spring. Adult services options in rehabilitation of persons with mental retardation. Techniques for job analysis and analyzing skills for specific jobs and job areas. Prerequisites: EDSE 531, EDSE 533, and EDSE 551.

EDSE 551. Education of Students with Specific Learning Disabilities (3)

Fall, Spring. Characteristics, multiple origins, and educational significance of specific learning disabilities and/or behavior

disorders.

EDSE 554. Education of Students with Severe Behavioral Disabilities (3).

An overview of the characteristics of severe behavioral handicaps and the methods of instruction and behavior management.

EDSE 559. Introduction to Manually Coded English Systems/ Total Communication (3)

Fall. Introduction to manual English and total communication instruction, sign systems, and processes. Development of basic sign skills for classroom use.

EDSE 560. Advanced Seminar in Manually Coded English/Classroom Techniques and Applications (3)

Fall, Spring. Investigation of linguistics of manual English in classroom use, implementation procedures for older students, and parents. Development of advanced skills in manually coded English.

EDSE 561. Introduction to Education of the Deaf (3)

Fall. 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 531 and EDSE 551.

EDSE 562. Introduction to Methods of Teaching Elementary School Subjects to Deaf and Hard-of-Hearing Children (3)

Spring. Methods of teaching pre-school and primary elementary school subjects. Prerequisites: EDSE 531, EDSE 551, and EDSE 561.

EDSE 563. 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 531, EDSE 551, EDSE 561, and EDSE 562.

EDSE 564. 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 531 and EDSE 551. Special education majors only.

EDSE 565. Advanced Language Instruction of 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 531, EDSE 551, and EDSE 564.

EDSE 570. Education of Students with Multiple Disabilities (3).

Educational dynamics, strategies, logistics, and responsibilities involved in socialization and education of students with multiple disabilities. Prerequisites: EDSE 531, EDSE 533, and EDSE 551.

EDSE 580. Seminar in Special Education (1-3)

Fall, Spring (on demand). Selected topics in the discipline; content varies from one year or semester to the next. May be repeated with approval of the student's advisor. Prerequisite: consent of the undergraduate and graduate program coordinators.

EDSE 582. Problems in Special Education (1-3).

Study of critical problems/topics and issues in special education. Prerequisite: consent of the undergraduate and graduate program coordinators.

EDSE 584/585. Directed Readings in Special Education (1-4)

Fall, Spring (on demand). Directed readings in selected topics of special education. Prerequisite: consent of the undergraduate and graduate program coordinators. EDSE 584 for a grade; EDSE 585 graded S/U.

EDSE 586/587. Workshop in Special Education (1-4)

On demand. Intensive study and development of materials and skills relevant to the needs of the special education practitioner. Topics vary from semester to semester. EDSE 586 for a grade; EDSE 587 graded S/U.

EDSE 589. Internship in Special Education (1-10)

Fall, Spring (on demand). Supervised teaching experience in education programs for exceptional children; planning and executing educational programs under the supervision of an experienced teacher in the area of concentration or certification. Prerequisite: permission of the undergraduate and graduate program coordinators.

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Graded S/U.

EDSE 610. Education and Psychology of the Gifted and Talented (3) Fall. The history of gifted education; characteristics, psychology, and needs; identification and assessment, introduction to major theorists, and current issues in the field.

EDSE 611. Curriculum for the Gifted and Talented (3) Spring. Describe factors that constitute differential education for gifted students; examine existing curricular models for gifted education; develop curriculum compatible with various service delivery models; develop evaluation mechanisms.

EDSE 612. Methods and Materials for the Gifted and Talented (3) Summer. The methodological strategies in classroom management and techniques for facilitation of gifted learners in various settings; competencies and attributes required for instructors; sources and evaluation of commercially available materials from a variety of sources.

EDSE 613. Practicum in Teaching the Gifted and Talented (1-6). Supervised experiences in a variety of planning and implementation settings. Prerequisite EDSE 610 and/or consent of instructor.

EDSE 619. Advanced Practicum in Gifted/Talented Education (3) On demand. Supervised teaching experiences in education programs for the gifted. This course is designed for students who have completed an initial practicum experience. Prerequisite: EDSE 613 and/or consent of instructor.

EDSE 621. Education Evaluation of the Young Child with Special Needs (3) Fall. Exposure to formal and informal assessment procedures, standardized tests, and observation systems necessary for planning an appropriate individualized educational program for the young child with special needs.

EDSE 622. Parents of the Young Child with Special Needs: From Education to Involvement (3) Spring. Rationale and techniques for working with the parents of young children with special needs: supporting parent involvement in the educational process, helping families cope, and methods used.

EDSE 623. Curriculum and Instruction for the Young Child with Special Needs (3) Fall. Identification and development of curriculum paradigms in relationship to past and present educational programs for young children with special needs. Focus will be on the development of preschool program models for young children with special needs.

EDSE 630. Sign English Intervention Systems/Total Communication (3). Examination of Sign English intervention systems, rationales, linguistic foundations, and expressive codes. Integrating Total Communication philosophy and principles of child development, procedures outlined for implementation with special children.

EDSE 631. Beginning Language Intervention with the Hearing Impaired (3) Fall. Relates knowledge of communication pragmatics, syntax, and semantic aspects of language to planning for instruction and evaluation of hearing-impaired students. Specific language characteristics and disorders associated with various levels of hearing impairment. Emphases on young children and through-the-air communication.

EDSE 632. Advanced Language Intervention with the Hearing Impaired (3) Spring. Planning language instruction for hearing-impaired learners at different levels. Emphases on older students and printed language. Assessment, identification, and remediation of reading and writing problems. Issues related to instruction in other subject areas. Prerequisites: EDSE 635 and 631.

EDSE 633. Selection and Development of Instructional Strategies and Methods for the Hearing-Impaired I (3) Spring. Develops knowledge and skills in planning instructional strategies especially for the younger hearing-impaired child. Emphasis on selection and modification of existing materials and methods for content area instruction. Prerequisite: EDSE 635.

EDSE 634. Selection and Development of Instructional Strategies and Materials for the Hearing-Impaired II (3) Fall. Extends knowledge and application of instruc-

tional theory to older hearing-impaired students and to non-standard subject areas. Emphasis on development of teacher-made materials, individualizing and managing instruction, and on alternative instructional programming. Prerequisites: EDSE 635 and 633.

EDSE 635. Psychosocial and Educational Aspects of Deafness (3). Introduction to deafness and an overview of education of the deaf. Includes: types, causes, and degrees of hearing impairment, related psychological and social factors, and implications for guidance and education; philosophy and history of education of the deaf, and instructional methodologies.

EDSE 648. Introduction to School Psychology (3) Fall. The study of origins and development of the profession of school psychology including roles and responsibilities, legal bases, ethical issues, and interaction with parents, teachers, and other professional personnel.

EDSE 649. Seminar: Issues and Practices in Special Education (3) Fall, Summer. For leaders and resource personnel in special education; identification of problem areas, possible solutions of these problems, evaluation of these solutions.

EDSE 650. Advanced Curriculum Development in Special Education (3) Fall, Summer. Application of principles of preparation, development, effective use of integrated units in teaching children with disabilities; emphasis on total program: goal identification, scope, sequence. Prerequisite: consent of instructor.

EDSE 651. Seminar in Curriculum Planning for Students with Specific Learning and/or Behavior Disorders (3) Spring, Summer. Direct experiences in planned educational programs for individual children and in tutoring individuals and small groups. Consent of instructor and EDSE 653.

EDSE 652. Practicum in Teaching Students with Specific Learning and/or Behavior Disorders (1-8). Experiences in variety of planning and implementation settings. Prerequisite: EDSE 651, EDSE 653, and/or consent of instructor.

EDSE 653. Seminar in Differential Diagnosis in Specific Learning

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and/or Behavior Disorders (3) Fall, 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 654. Seminar in Educational Evaluation of Operant Behavior Management Principles (3) Fall, 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 655. Seminar in Educational Behavior Modification in Specific Learning or Behavior Disorders (3) Spring, Summer. Practical application of the principle techniques and strategies of applied behavior analysis. Prerequisite: EDSE 654 or consent of instructor.

EDSE 656. Dynamic Assessment of Exceptional and Regular Education Students I (3) Fall, Summer. 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. Concurrent registration in EDSE 689 is required.

EDSE 657. Collaborative Problem-solving Methods/Techniques for Exceptional and Regular Education Students (3) Fall, Summer. Ecological and client needs assessment including experience with interviewing and observation procedures, needs assessment, task analysis, criterion and comain-reference assessment, information and standardized assessment; language-reading development assessment, learning styles, multicultural and learning disorders of children; evaluation and intervention. Prerequisites: EDSE 656 for School Psychology or consent of instructor.

EDSE 658. Dynamic Assessment of Exceptional and Regular Education Students II (3) Spring.

Child study process. For school psychology, concurrent registration in EDSE 689 is required. Prerequisite: EDSE 656 and EDSE 658, or consent of instructor.

EDSE 660. Administration and Supervision of Special Education (3) Spring, Summer. Organizing, financing, housing, equipping, staffing, supervising, and programming specialized educational programs for children with disabilities. Prerequisite: consent of instructor.

EDSE 663. Community Planning for Exceptional Individuals (3) Spring, Summer. Facilities and services available in planning comprehensive program for children with disabilities.

EDSE 664. Counseling Parents of Exceptional Individuals (3) Spring, Summer. Goals of individual adjustment of children with disabilities, evaluation of techniques for gathering and utilizing information, principles, and techniques of using such material in counseling parents.

EDSE 665. Team Models and Community Collaboration in Early Intervention (3) Fall. Rationale and techniques for developing effective early intervention teams. Focus is on team approaches, case management techniques, group development, and effective parent/professional teaming.

EDSE 666. 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 669. Principles and Procedures in Workstudy Coordination for Handicapped (3) On demand. Philosophy, history, principles, procedures, objectives, developments of work-study coordination for individuals with disabilities.

EDSE 671. Process of Change in Public Schools (3) Spring, Summer. Theoretical bases, systematic and planned strategies for effecting change in education from socio-psychological consultation viewpoint; role and strategies of change agent; consultant. Prerequisite: consent of instructor.

EDSE 672. Observation and Participation in the Schools (3) Spring, On demand. Directed obser-

vation and participation by school psychology students in educational settings.

EDSE 673. Neuropsychology and Learning (3) Spring. Neuropsychology and learning is designed to provide the basics of neuroanatomy; specifically, in terms of brain organization and neurological development. The relationship of learning and brain function will be explored through awareness of neuropsychological processes. Impact on academic functioning will also be investigated. Prerequisites: enrollment in School Psychology/Psychology, or consent of program coordinator and instructor.

EDSE 674. Analyzing Classroom Learning Environments and Social Relations (3) Fall. 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 675. Supervised Work Experience in Workstudy Coordination for Persons with Disabilities (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 676. Role and Function of the School Psychologist (4) Summer, On demand. An overview of the professional concerns school psychologists face working in the public school system. Orientation and preparation for the supervised internship experience; future responsibilities as a professional staff consultant. Basic issues; legal, ethical, and moral guidelines. Prerequisites: PSYC 661-663, EDSE 648, EDSE 671, EDSE 674.

EDSE 677. Professional Development Seminar - School Psychology (1) Summer. Preparation for the Supervised Internship Experience in School Psychology. Course will include Development of Individualized Competencies, IEP, field interviews and placements, completion of temporary certification forms for internship. Prerequisites: master's degree in school psychology and approval of the school psychology

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coordinator and instructor. Graded S/U.

EDSE 678. Assessment and Testing in the Mental Health Setting (3) Spring. This course is designed to provide students with an understanding of the terminology, concepts, and issues involved in selecting, administering, and interpreting the kinds of standardized tests typically used by counselors, rehabilitation counselors, and other human service providers in a variety of settings.

EDSE 679. Teaching Special Education/School Psychology at Postsecondary Level (1-3) Fall, Spring, 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 680. Seminar in Special Education/School Psychology (1-3) Fall, Spring, On demand. Systematic study in several selected topics in the discipline; content varies from semester to semester. May be repeated with approval of the student's advisor if graduate credit is desired or at the discretion of the student for recertification or for professional growth. Prerequisite: consent of instructor.

EDSE 682. Problems in Special Education/School Psychology (1-3). Study of critical problems/topics and issues in special education/school psychology. Prerequisite: consent of instructor.

EDSE 684/685. Directed Readings in Special Education/School Psychology (1-3). Fall, Spring (on demand). Directed readings in selected topics of special education/school psychology. Prerequisite: consent of instructor. EDSE 684 for a grade; EDSE 685 graded S/U.

EDSE 687. Independent Study in Special Education/School Psychology. Supervised independent completion of a project other than readings. Graded S/U.

EDSE 689. Internship in Special Education/School Psychology (1-10) Fall, Spring, 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. Graded S/U.

EDSE 691. Directed Research in Special Education/School Psychology (1-4). Supervised independent research. Graded S/U.

EDSE 694/695. Workshop on Current Topics in Special Education/School Psychology (1-6) Fall, Spring, On demand. Intensive study and development of materials and skills relevant to the needs of practitioner special education teachers/school psychologists. Topics vary from semester to semester. EDSE 694 for a grade; EDSE 695 graded S/U.

EDSE 697. Supervised Practicum in Special Education/School Psychology (1-12). Fall, Spring (on demand). Supervised teaching experience in education programs for exceptional children; planning and executing educational programs under the supervision of an experienced teacher in the area of concentration or certification. Prerequisite: consent of undergraduate and graduate program coordinators. Graded S/U.

EDSE 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

EDSE 699. Thesis Research (1-12) On demand. Credit for thesis study. An enrollment in excess of six hours is acceptable for a master's degree, but no more than six hours are creditable toward the degree. The minimum acceptable total for the degree is three hours. Graded S/U.

EDSE 780. Seminar in Special Education/School Psychology I (1-8) Fall, Spring. A two-semester seminar (four credits per semester) on child study, consultation staffing, and selected topics related to the internship experience. Prerequisites: Master's degree, taken concurrently with supervised experience (EDSE 788) and consent of the school psychology coordinator.

EDSE 782. Problems in Special Education/School Psychology (1-4) Fall, Spring (on demand). Selected topics within the discipline; content varies from semester to semester. May be repeated on approval of the instructor and department chair.

Prerequisite: Master's degree and consent of the instructor and department chair.

EDSE 789. Internship in School Psychology (1-12) Fall, Spring. A two-semester experience under the direct supervision of a school psychologist in an approved internship setting. Prerequisite: Master's degree and approval of the school psychology coordinator, program chair, and instructor.

Counseling Courses for Graduates

COUN 511. 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.

COUN 625. Direct Study of Child (1-4) Fall. Part of behavior analysis program. Child studies using predetermined framework.

COUN 655. Time Management in the Academic Environment (1). Focus is upon improving the use of time in academic institutions. Specific strategies will be explored for combating procrastination, optimizing student time-on-task, organizing paperwork, enhancing meeting effectiveness, setting productive priorities, and goal setting for success.

COUN 662. Principles of Elementary Guidance (3) On demand. Principles, basic concepts, and issues in elementary guidance.

COUN 663. Testing Practicum (3) On demand. Selection, administration, and interpretation of standardized group tests under supervision. Open to students in guidance and related fields. Prerequisite: EDFI 661, EDSE 678, or equivalent.

COUN 664. Crisis Counseling (3). Introduction to theory and techniques of crisis counseling. A crisis model will be presented applicable to numerous settings for assessing clients exhibiting lack of coping skill due to loss, death, divorce, physical and sexual abuse, rape, battering, and suicide. Mental stability and hospitalization assessment and treatment planning will be

Intervention Services

an integral part of the course. Prerequisite: COUN 675 or consent of instructor.

COUN 665. Consulting Functions and Practices (3) Fall, Summer. Study of consultation models and skills for implementation with teachers, parents, administrators, and other helping professionals.

Prerequisites: COUN 674 and 675.

COUN 669. Introduction to Guidance and Counseling (3). Introduction to the profession. Students will formulate a personal philosophy of school counseling through study of self-awareness activities, management and development of school counseling programs, and through the effective use of public relations, school, and community resources, evaluation, and accountability.

COUN 674. Career and Life Planning Approaches (3). Investigation of decision process applied to career and life planning; focus on development and implementation of career counseling programs for diverse settings with particular attention to goals, processes, and material and human resources.

COUN 675. Theories and Techniques of Counseling (4). An introduction to counseling theories and techniques. A major emphasis on actual practice of effective counseling skills under supervision. Through critical study of diverse theories and techniques and skill application, the student will begin to formulate a personal theory of counseling.

COUN 676. Counseling the Culturally Diverse (3). An introduction to requisite social and cultural foundations needed for culturally competent counseling/helping services. In providing services to diverse populations such as race, ethnicity, gender, and sexual orientation, students will develop their multicultural competence in three areas: (a) personal awareness of biases, stereotypes, and "isms"; (b) knowledge of different world views and life experiences; and (c) culturally

intentional helping skills.

COUN 678. Legal and Ethical Issues in Counseling (3). Examination of the major legal and ethical dilemmas confronting practicing counselors. Practical application of the professional codes of ethics and study of the laws and judicial precedents relevant to counseling.

COUN 679. Group Counseling Models and Procedures (3). Investigation of skills and processes involved in development and implementation of group counseling/guidance programs; readings, discussion, and participation in group experiences. Prerequisite: COUN 675.

COUN 682. Problems in Counseling (1-4). Systematic study of current issues and problems in the field of counseling. Prerequisite: consent of instructor.

COUN 686. Independent Study in Counseling (1-4). In-depth exploration of counseling-related topics beyond that covered in regular courses. Proposed program of study must be approved by instructor prior to registration.

COUN 689. Internship in Counseling (1-12). Supervised experience in counseling in a school, community agency, or other mental health setting. Students are required to meet a minimum of one hour per week with on-site supervisors and a minimum of one and one-half hours per week with program faculty supervisors. Students are also required to meet the internship hour requirement appropriate for the M.Ed. or M.A. Prerequisite: COUN 675 and 776. Graded S/U.

COUN 697. Supervised Practicum in Counseling (4). Counseling practice with clients under supervision. Open only to advanced counseling students. Enrollment is limited and requires preregistration with the program coordinator six months in advance. Graded S/U.

COUN 699. Thesis Research (1-12). 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. Graded S/U.

COUN 701. Mental and Emotional Disorders (3) On demand. An overview of mental and emotional disorders experienced by persons of all ages throughout the lifespan. Students study clinical psychopathology, personality characteristics, and abnormal behavior with a focus on etiology, prevention, and counseling practices.

COUN 702. Advanced Assessment (3) On demand. The focus of this course is on the evaluation of mental and emotional status. Students learn to select, administer, and interpret individual and group standardized tests of mental ability and personality measurement. The use of assessment procedures is studied in relation to diagnosis and treatment planning. Prerequisite: EDSE 678 or equivalent.

COUN 704. Play Therapy (2) On demand. An introduction to "Play," the language of the child. Students will study various theories of play therapy and will practice their skills and techniques learned in a clinical practicum setting with actual child clients. Videotapes, audiotapes, etc., will be utilized for supervision.

COUN 705. Clinical Treatment Planning (3). Development of an understanding of all aspects of clinical treatment planning using effective diagnosis of mental and emotional disorders. Emphasis will be on the use of operative treatment plans in the clinical setting.

COUN 776. Counseling Practicum (4). Counseling practice with clients under supervision. A minimum of 40 hours of direct service. Students will be involved in individual and group supervision as well as formal evaluation. Enrollment is limited and requires preregistration with the program coordinator at least six months in advance. Prerequisite: COUN 675.

Materials Science

Robert I. Boughton, Director
Room: 165 Overman Hall
Phone: 419-372-2423
Fax: 419-372-9938
E-mail: boughton@bgsu.edu

Graduate Faculty

Professors - Robert Boughton, Physics and Astronomy; Carol Heckman, Biological Sciences; Douglas Neckers, Chemistry; David Newman, Chemistry
Associate Professors - Sudershan Jetley, Technology Systems; Neocles Leontis, Chemistry
Assistant Professors - John Farver, Geology; Dawn Hentges, Family and Consumer Sciences; Bruno Ullrich, Physics and Astronomy

Graduate work in Materials Science may be pursued through existing master's and doctoral programs in the departments listed above. Focus on materials characterization, synthesis, simulation and processing studies can be included as part of a graduate degree program in the above areas under the direction of a principal faculty member.

Courses for Graduates

MATS 501. Survey of Materials Science I (3) Fall. Introduction to the basic concepts of materials science. Crystalline materials, dislocations, elastic properties, polymers, ceramics, and corrosion. Two one-hour lectures and one three-hour laboratory. Prerequisite: graduate standing in science or technology.

MATS 502. Survey of Materials Science II (3) Spring. Continuation of

MATS 501. Electrical, electronic, magnetic, and optical properties of materials with specific focus on modern applications and devices. Surface science and its applications in the assessment and development of novel materials. Prerequisite: MATS 501 or consent of instructor.

MATS 681. Materials Science Seminar (1). Systematic study of selected topics in materials science. May be repeated. Graded S/U.

MATS 703. Materials and Light (3) Fall. Discussed are the various interactions between light and materials, the study of materials with light, and the use of materials in the production and manipulation of light. Topics include theory, use and engineering of lasers, photoelectric effects and photoelectron spectroscopy, and optical materials.

Mathematics and Statistics

Master of Arts
Master of Arts in Teaching
Doctor of Philosophy

Neal Carothers, Chair
Steven Seubert, Graduate Coordinator
Room: 450 Mathematical Sciences Building
Phone: 419-372-2636

Graduate Faculty

Professors - James Albert, Ph.D.; Neal Carothers, Ph.D.; So-Hsiang Chou, Ph.D.; Arjun Gupta, Ph.D.; John Hayden, Ph.D.; W. C. Holland, Ph.D.; Truc Nguyen, Ph.D.; Steven Seubert, Ph.D.; Gábor Székely, Ph.D.
Associate Professors - Curtis Bennett, Ph.D.; Kit Chan, Ph.D.; Hanfeng Chen, Ph.D.; Alexander Izzo, Ph.D.; Barbara Moses, Ph.D.; Sergey Shpectorov, Ph.D.; J. Gordon Wade, Ph.D.
Assistant Professors - John Tuhao Chen, Ph.D.; Corneliu Hoffman, Ph.D.; Warren McGovern, Ph.D.; David Meel, Ph.D.; Tong Sun, Ph.D.; Craig Zirbel, Ph.D.

The **Department of Mathematics and Statistics** offers the **Master**

of Arts, the Master of Arts in Teaching, and the Doctor of Philosophy degree programs. Through proper selection of course work, students in the M.A. program can prepare for direct entry into careers in business, industry, government, and education, or for study toward a Ph.D. in mathematics, statistics, computer science, or operations research. Areas of specialization in the M.A. program are pure mathematics, mathematical statistics, and scientific computation.

The pure mathematics specialization is designed for students interested in obtaining a broad background in pure mathematics or in pursuing a Ph.D. degree in mathematics. The mathematical statistics specialization is intended for students interested in statistics and can be designed for those planning to pursue a doctoral degree. The scientific computation specialization is intended for students interested in applied mathematics.

The Master of Arts in Teaching degree is designed for those who plan a teaching career in the secondary schools, two-year colleges, or small liberal arts colleges.

The goal of the Ph.D. program is to maintain a balance between efficiently preparing students for dissertation work and achieving

breadth in the mathematical sciences.

The **Master of Science in Applied Statistics** is offered jointly with the Department of Applied Statistics and Operations Research. Students may pursue the M.S. degree under either Plan I or Plan II. Requirements under either plan are: MATH 641 and 642, STAT 502, 506, 508, and 675; at least one course from MATH 650, STAT 650, STAT 675; at least six hours of graduate course work in an approved cognate area; and three elective courses in statistics (at least two at the 600 level). Of these elective courses, at least three hours must be from the Department of Mathematics and Statistics and at least three must be from the Department of Applied Statistics and Operations Research. The remaining three hours should be from the offerings of either the Department of Applied Statistics and Operations Research or the Department of Mathematics and Statistics. Any of these courses may be waived at the graduate level for students who can document equivalent undergraduate or graduate training; however, the credit hour requirement will not be reduced in this case. The student will be expected to substitute appropriate electives. Cognate courses are selected by the student,

Mathematics and Statistics

subject to the approval of the graduate coordinator, to conform to the individual needs of the student. Cognate courses may not include courses whose primary content is statistics.

Plan I: Candidates must complete a minimum of 33 semester hours of graduate course work and three hours of thesis credit. Students under Plan I need not take STAT 675. Candidates must pass a written and/or oral examination over the thesis and MATH 641 and 642, and STAT 502, 506, and 508.

Plan II: Candidates must complete a minimum of 33 hours of graduate course work. Students must pass a written and/or oral comprehensive examination over MATH 641 and 642, and STAT 502, 506, and 508.

In addition, a mathematics supervision program leading to the **Specialist in Education** degree is available. See "Mathematics Supervision" for further information.

Prerequisites to Graduate Work

The preferred foundation for graduate work is an undergraduate major in mathematics or a closely related area. Applicants with less than this level of prerequisite background may be accepted if it appears that they are adequately prepared for graduate work. Minimum preparation consists of a full year in differential and integral calculus and two courses for which calculus is a prerequisite.

Applicants planning to specialize in scientific computation should have completed courses in linear algebra, advanced calculus, ordinary differential equations, and programming in a high-level language such as C or FORTRAN before or soon after admission.

Admission Procedure

Applicants seeking admission to the graduate programs in mathematics and statistics should follow the instructions outlined in the "Graduate Admission" section of this catalog.

In addition to the application required by the Graduate College, applicants must submit a statement of intent delineating the purpose for enrolling in the program and career goals.

Requests for department application materials should be directed to

the Department Graduate Secretary at penriqu@bgsu.edu. Please also see <http://www.bgsu.edu/departments/math> and http://www.bgsu.edu/colleges/gradcol/app/grad_app.pl.

Degree Requirements

Master of Arts

Candidates must complete at least 30 semester hours of approved graduate credit, including at least 18 hours in mathematics courses numbered 600 or above, excluding MATH 585, 590, 591, 685, 694, and 695. In addition, students must satisfy all the requirements in one of the three groups described below.

Pure Mathematics: Required courses are MATH 633, 634, 665, and 666.

Mathematical Statistics: Required courses are MATH 565 or 665, 641, 642, and two additional courses in specialized areas of statistics selected from among MATH 643, 644, 645, 646, 647, 648, 671, 740, and any approved 682 course in statistics. Students should take MATH 666 if they are planning to pursue a Ph.D.

Scientific Computation: Required courses are MATH 539, 618, 620, 665, and 668.

Each of the three programs are offered under two plans.

Plan I: Candidates must write a thesis and pass an oral and/or written examination on the thesis.

Plan II: Candidates must pass a written comprehensive examination.

Related courses from other fields may be included in the student's plan, subject to the approval of the graduate coordinator. The actual course of studies is designed by the student in consultation with, and with the consent of, the graduate coordinator on an individual basis.

Master of Arts in Teaching

The Master of Arts in Teaching degree is offered under Plan II for experienced teachers. Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Doctor of Philosophy

At about 30 semester hours of course work beyond the master's degree, students must take a written and/or oral preliminary exam in two areas of study. After passing this

exam, students are admitted as candidates for the Ph.D. degree.

Students must then write an original dissertation which is, in the judgment of the dissertation committee, of publishable quality. Students are granted the degree after the dissertation is approved by the dissertation committee and they have passed the final oral examination in defense of the dissertation.

Courses for Graduates

MATH 501. Number Theory (3) Summer (odd years). Divisibility, prime numbers, linear congruences, Chinese Remainder Theorem, quadratic residues, quadratic reciprocity law, numerical functions, factorization of integers, Fibonacci numbers, elementary diophantine equations, and applications. Prerequisite: MATH 322 or consent of instructor.

MATH 502. Modern Geometry (3) Fall, Spring. Axiomatic development of neutral and Euclidean geometry. Introduction to non-Euclidean geometry. Prerequisite: MATH 339 or MATH 403 or consent of instructor.

MATH 503. Modern Algebra I (3) Fall. Topics from groups, and rings; normal subgroups, homomorphisms, cyclic groups, permutation groups, Lagrange and Cayley's theorem, factor groups, abelian groups, direct products, integral domains, ideals and factor rings, ring isomorphisms, polynomial rings. Prerequisite: MATH 233, MATH 322, and MATH 332, or consent of instructor.

MATH 504. Modern Algebra II (3). Continuation of topics from MATH 503; vector spaces, extensions of fields, finite fields. Prerequisite: MATH 503 or consent of instructor.

MATH 505. Topics in Geometry (3). Organized around one or more areas from geometry such as projective geometry, non-Euclidean geometry, or differential geometry. Prerequisite: consent of instructor.

MATH 511. History of Mathematics (3) Spring. History of mathematics through calculus. Prerequisite: consent of instructor. Open only to MAT students.

MATH 514. Advanced Mathematics for Elementary Teachers (5). Consumer mathematics, non-Euclidean geometry, matrices and

Mathematics and Statistics

vectors, proof and axiomatic systems, number theory, and other selected topics. Prerequisite: grade of C or better in MATH 242 or MATH 243.

MATH 517. Advanced Mathematics Topics for Early Adulthood Teachers (3) Spring. Topics from the middle and secondary school mathematics curricula presented from an advanced point of view. Topics include the development of various number systems, the meaning of area, the fundamental theorem of calculus, infinite cardinalities, and classical problems of geometry. History of math integrated into the course. Prerequisite: consent of instructor. Open only to MAT students.

MATH 521. Foundations of Mathematics (3) Fall. Logic; set theory (including informal discussion of infinite sets and cardinals); axiomatic method (including models, consistency, and independence). Prerequisite: MATH 339 or MATH 403 or consent of instructor.

MATH 525. Theory of Interest (3) Spring (even years). General theories of interest, annuities, yield rates, amortization schedules, and sinking funds. Bonds and other securities and additional topics in financial analysis. Prerequisite: MATH 232 or consent of instructor.

MATH 526. Actuarial Mathematics I (3) Fall. Survival distributions and life tables, life insurance, life annuities, net premiums. Intended to prepare students for actuarial examinations. Prerequisite: MATH 541.

MATH 527. Actuarial Mathematics II (3) Spring. Multiple life functions; multiple decrement models; valuation theory of pension plans; insurance models including expenses, nonforfeiture benefits, and dividends. Prerequisite: MATH 526.

MATH 532. 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 534. Advanced Calculus (3) Fall. Advanced topics from the differential and integral calculus of functions of several variables includ-

ing: curvilinear coordinates, Jacobian matrices, Lagrange multipliers, gradient fields, divergence, and curl of a vector field. Prerequisites: MATH 233 and MATH 332, or consent of instructor.

MATH 537. 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 539. 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 541. Probability and Statistics I (3) Fall, Spring. Axiomatic probability; conditional probability; random variables/vectors; distribution functions; expectations; moment-generating functions; special distributions; functions of random variables/vectors; random sampling and sampling distributions; central limit theorem; weak law of large numbers. Prerequisite or corequisite: MATH 233.

MATH 542. Probability and Statistics II (3) Spring. Statistical models; point estimation; interval estimation; testing statistical hypotheses; analysis of discrete data; nonparametric methods. Prerequisite: MATH 541.

MATH 545. Applied Probability (3). Probability models for applications, finite Markov chains, queuing systems, Poisson process, applications to genetics, diffusion, computer systems. Prerequisite: MATH 332 and MATH 541.

MATH 547. Exploratory Data Analysis (3) Fall (alternate years). An introduction to modern techniques in data analysis, including stem-and-leaves, box plots, resistant lines, smoothing, and median polish. Prerequisite: MATH 541 or MATH 247 or STAT 315 or consent of instructor.

MATH 551. Numerical Analysis (3). Study of numerical methods for interpolation and approximation, integration and differentiation,

solution of non-linear equations and systems of linear and non-linear equations. Prerequisite: MATH 332 and programming experience. Not open to students with credit for CS 551.

MATH 552. Numerical Analysis (3). Study of numerical methods for the algebraic eigenvalue problem, solutions of ordinary differential equations; and topics from approximation theory, numerical solution of partial differential equations, optimization techniques, and sparse matrix computations. Prerequisite: MATH 337.

MATH 561. 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 233 and MATH 332 or consent of instructor.

MATH 565. Introduction to Real Analysis I (3) Fall, Spring. Completeness and order axioms; limits of sequences; limits of functions and continuity; open, closed, and compact sets; uniform continuity; differentiation and the mean value theorem; the Riemann integral. Prerequisites: MATH 233, MATH 322 and MATH 332, or consent of instructor.

MATH 566. Introduction to Real Analysis II (3) Spring. The Riemann-Stieltjes integral; sequences of functions; series of real numbers; series of functions; and optional topics selected from transcendental functions, special functions. Fourier series, and metric spaces. Prerequisites: MATH 565 or consent of instructor.

MATH 582. Topics in Mathematics (3). Selected topics in mathematics not included in existing courses. May be taken twice for credit. Prerequisite: consent of instructor.

MATH 585. Directed Readings in Mathematics or Statistics (1-4). Directed readings in selected topics of mathematics or statistics. Prerequisite: consent of instructor. Graded S/U.

MATH 586. Workshop in Mathematics or Statistics (1-4). Con-

Mathematics and Statistics

densed development of selected issues or topics and related problems of current interest to mathematicians, statisticians, or related occupations. May be repeated for credit.

MATH 590. Professional Aspects of Teaching Mathematics (3). Professional training for teaching mathematics at the college level with emphasis upon practical problems, and introduction to the mathematical community, its culture and career patterns. May be repeated for credit. Graded S/U.

MATH 591. Professional Aspects of Applying Mathematics (3). Professional training for applying mathematics in a nonacademic setting, an introduction to the mathematical community, its culture and career patterns, continued. May be repeated for credit. Graded S/U.

MATH 618. Numerical Analysis of Partial Differential Equations I (3). Classification of second order linear partial differential equations; source problems; auxiliary conditions and well posed problems. Method of Characteristics for hyperbolic equations. The conservation law form and the Lax Wendroff difference equations. Lax-Richtmyer theory for initial value problems. Elliptic partial differential equations. Young's theory on 2-cyclic matrices. Prerequisite: MATH 539, programming experience.

MATH 620. Numerical Analysis of Partial Differential Equations II (3). Elements of linear analysis; Lax-Milgram theorem; Galerkin Approximations; symmetric bilinear forms and variational formulations; elements of the theory of generalized derivatives and Sobolev spaces; elements of approximation theory; source problems; finite element spaces; development of finite element codes. Prerequisite: MATH 539, MATH 665.

MATH 628. Topics in Mathematics Education (1-3). Introduction to research-level topics and current research issues. Topics from learning theories, mathematics and technology, mathematics curriculum development, and mathematical problem solving. Prerequisite: consent of instructor.

MATH 633. Algebra I (3). Groups, rings, fields, and other algebraic structures. Prerequisite:

MATH 503.

MATH 634. Algebra II (3). Continuation of MATH 633.

MATH 638. Linear Algebra (3). Vectors and matrices, quadratic forms, positive definite matrices, convexity, classical inequalities, generalized inverses. Prerequisite: consent of instructor.

MATH 641. Probability Theory I (3). 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. Prerequisite: MATH 565 or consent of instructor.

MATH 642. Mathematical Statistics II (3). Theory of point estimation; sufficiency, completeness, unbiased estimation, Cramer-Rao inequality. 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 confidence intervals; likelihood ratio tests; nonparametric procedures. Prerequisite: MATH 641.

MATH 643. Mathematical Statistics III (3) Fall, Spring. Transformations of random vectors, affine and orthogonal transformations multivariate normal vectors, the delta-method, variance stabilizing transformations; optimal predictors; sufficiency, completeness, and estimation; asymptotic optimality properties of estimators with particular emphasis on the asymptotic normality of maximum likelihood estimators; Neyman-Pearson theory; locally most powerful tests of hypotheses; basic theory of linear models; and the analysis of discrete data including logistic regression. Prerequisite: MATH 642.

MATH 644. 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 641.

MATH 645. 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 641 or consent of instructor.

MATH 646. Nonparametric Statistical Inference (3). Statistical models in nonparametric settings; equal-in-distribution relation and its applications; nonparametric statistics based on counting and ranking; U-statistics and asymptotics; evaluating and comparing performance of nonparametric alternative hypotheses; nonparametric point and interval estimation; linear rank statistics and their asymptotic theory; locally most powerful rank tests; applications to one- and two-sample settings. Prerequisite: MATH 642, or MATH 641 and MATH 542.

MATH 647. 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 642 or MATH 641 and MATH 542.

MATH 648. Bayesian Statistical Inference (3) Spring (even years). Introduction to the Bayesian approach to statistical inference. Discussion of modeling subjective information about parameters using a prior distribution. Computation of the posterior distribution for many standard statistical inference problems. Comparison of the Bayesian approach with the "classical" approach. Discussion of different strategies available for the numerical computation of Bayesian integrals. Illustration of the use of Bayesian methods in different fields of application.

MATH 650. Statistical Consult-

Mathematics and Statistics

ing (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 STAT 650. Graded S/U.

MATH 651. Topology I (3).

Topological spaces, separation properties, product and quotient topologies, compactness, connectedness, homotopy, fundamental group and covering spaces, Seifert-VanKampen theorem, geometry of simplicial complexes. Prerequisite: MATH 565, MATH 503, and consent of instructor.

MATH 655. 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 traveling salesman problem, the personnel assignment problem, etc. Often algorithms will be included and their efficiencies analyzed. Prerequisite: consent of instructor.

MATH 661. Complex Analysis I (3).

Complex numbers, analytic functions and differentiation, elementary functions, power series, complex integration with applications to function theory. Prerequisite: MATH 565 and consent of instructor.

MATH 665. Real Analysis I (3).

Infinite sequences and series of real numbers, theory of metric spaces, Riemann and Riemann-Stieltjes integral. Prerequisite: MATH 565 and consent of instructor.

MATH 666. Real Analysis II (3).

Further topics on Riemann-Stieltjes integral, sequences and series of functions, further topics in metric spaces, Lebesgue measure and integral. Prerequisite: MATH 665.

MATH 668. Iterative Solution of Nonlinear Equations in Several Variables (3).

Model problems in nonlinear equations. Gateau derivatives, F-derivatives, and convex functionals. Contractions and the continuity property. Iterative methods. Minimization methods: paraboloid methods, descent methods, conjugate-direction methods. Steplength algorithm. Convergence factors. Continuation methods. Convergence under partial ordering. Prerequisite: MATH 332, advanced

calculus or equivalent, programming experience.

MATH 669. Approximation Theory (3). Polynomial Interpolation and its limitations. Piecewise linear approximation. Piecewise Cubic Interpolation. B-splines and their stable evaluation. B-spline series. Smoothing and least square approximation. Surface approximation by tensor product. Orthogonal polynomials and infinite-order methods. Prerequisite: MATH 551.

MATH 670. Advanced Readings in Mathematics or Statistics (1-4). Independent reading and study in the mathematical or statistical literature. Prerequisite: consent of instructor.

MATH 671. Survival Analysis (3). Survivor, hazard, and cumulative hazard functions; phenomena of censorship and types of censoring; parametric estimation and hypotheses testing in the presence of censored data; likelihood functions, maximum likelihood and asymptotic theory; nonparametric inferences in the presence of censored data; estimator and tests associated with the survivor function, product-limit estimator; estimator and tests associated with the survivor function, Nelson-Aalen estimator; classes of tests based on the PLE and NAE; special cases: Gehan tests, Mantel-Haenszel tests, Peto tests, log-rank tests, etc. Regression models; Cox proportional hazards model and partial likelihood; accelerated failure time models. Prerequisite: MATH 641.

MATH 674. Seminar in Mathematics Education (1-3). Introduction to research-level topics and current research issues. Topics are highly dependent on enrollment and audience interests. Graded S/U.

MATH 680. Seminar in Mathematics (1-4). Discussion, papers, and projects appropriate to special interests of participants; training in research methods.

MATH 681. Seminar in Mathematics (1-3). Discussion, papers and projects appropriate to special interests of participants; training in research methods. Graded S/U.

MATH 682. Topics in Mathematics (1-4) Fall, Spring. Selected topics in mathematics not included in existing courses.

MATH 683. Problems in Math-

ematics and Statistics (1-3). Problem solving in mathematics and statistics under guidance of an instructor. Prerequisite: consent of graduate coordinator. Graded S/U.

MATH 685. Directed Readings in Mathematics and Statistics (1-4). Directed readings in selected topics of mathematics and statistics. Prerequisite: consent of instructor. Graded S/U.

MATH 694. Workshop in Mathematics or Statistics (1-4). Condensed development of selected issues or topics and related problems of current interest to mathematicians, statisticians, or related occupations. May be repeated for credit.

MATH 695. 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 697. Supervised Practicum in 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 materials. Graded S/U.

MATH 699. Thesis Research (1-12). 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. Graded S/U.

MATH 712. Topics in Applied Mathematics (3). Topics from numerical solutions of PDE, large-scale optimization and inverse problems, functional analysis, image reconstruction, and applications to science and engineering. Prerequisite: consent of instructor.

MATH 713. Seminar in Applied Mathematics (3). Introduction to research-level topics and current research issues. Topics are highly dependent on enrollment and audience interests. Prerequisite: consent of instructor. Graded S/U.

MATH 733. Group Theory (3). Solvable and nilpotent groups, extensions, multiply transitive permutations groups, free groups, and free products. Prerequisite: consent of instructor.

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MATH 734. Rings and Modules (3). Radicals, Wedderburn's structure theorems, modules over principal ideal domains. Prerequisite: consent of instructor.

MATH 735. Topics in Algebra (3). Selected topics from finite groups, Abelian groups, ordered groups, number theory, algebraic number fields, universal algebra, etc. Prerequisite: consent of instructor.

MATH 736. Seminar in Algebra (1-3). Selected topics from lattice theory, local rings, ordered groups, ring theory, semigroups, etc. Prerequisite: consent of instructor. Graded S/U.

MATH 740. Multidimensional Statistics (3). Multivariate distributions having specified marginals. Random orthogonal transformations, T-squared, D-squared, and Wishart distributions; profile analysis; distribution of characteristic roots, covariance structures, classification and cluster analysis; robust multivariate statistics. Prerequisite: MATH 532 and MATH 642, or consent of instructor.

MATH 741. 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 666.

MATH 742. Advanced Probability Theory II (3). Continuation of MATH 741. Decomposition theorems, central limit problem, conditional

expectation, and martingale theory. Probability on metric spaces. Prerequisite: MATH 741.

MATH 743. Topics in Probability (3). Selected topics from stochastic processes, harmonic analysis, probability on topological groups, characteristic functions, etc. Prerequisite: consent of instructor.

MATH 744. Seminar in Probability (1-3). Selected topics from probability on algebraic structures, stochastic calculus, inference for stochastic processes, etc. Prerequisite: consent of instructor. Graded S/U.

MATH 745. Advanced Mathematical Statistics (3). Advanced theory of estimation and hypothesis testing. Prerequisite: MATH 641 and MATH 642.

MATH 746. Advanced Mathematical Statistics (3). MATH 745 continued. Prerequisite: MATH 745.

MATH 747. Seminar in Statistics (1-3). Selected topics from multivariate analysis, nonparametric statistics, sequential analysis, etc. Prerequisite: consent of instructor. Graded S/U.

MATH 748. Topics in Statistics (3). Selected topics from multivariate analysis, decision theory, nonparametrics, Bayesian inference, etc.

MATH 752. Topology II (3). Differentiable manifolds, DeRham cohomology, simplicial homology, and DeRham's theorem. Additional topics as time permits. Prerequisite: MATH 651.

MATH 762. 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. Prerequisite: MATH 661.

MATH 765. Real Analysis III (3). Continuation of MATH 665-666. Abstract measure and integration theory, additional topics from metric spaces and topological spaces, differentiation, L_p spaces. Prerequisite: MATH 666.

MATH 766. Real Analysis IV (3). Continuation of MATH 765 with additional topics in functional analysis. Prerequisite: MATH 765.

MATH 767. Functional Analysis (3). Continuation of MATH 766. Prerequisite: MATH 766.

MATH 768. Topics in Analysis (3). Prerequisite: consent of instructor.

MATH 769. Seminar in Analysis (1-3). Prerequisite: consent of instructor.

MATH 795. Workshop in Mathematics or Statistics (1-4). Continuation of MATH 695 for Ph.D. students. Graded S/U.

MATH 796. Supervised Practicum in Mathematics or Statistics (1-4) Cooperative internships or practical experiences for individual students with supervision provided jointly by a hosting agency and the department. May be repeated for credit.

MATH 799. Dissertation Research (1-16).

Mathematics Supervision Specialist in Education

Barbara Moses, Chair
Room: 411 Mathematical Sciences Building
Phone: 419-372-7464

The two-year program in mathematics supervision leading to the degree of **Specialist in Education** is designed primarily to provide advanced preparation in mathematics and education for an individual

preparing for a career as a public school supervisor of mathematics or as a chair in a major secondary school.

Admission Procedure

Each applicant must: (1) present evidence of at least three years of successful experience as a teacher in grades K through 12, preferably at more than one level; (2) pass a series of written tests; and (3) be interviewed by the Mathematics Supervision Committee.

Applicants seeking admission to the graduate program in mathematics supervision should also follow the instructions outlined in the "Graduate

Admission" section of this catalog.

Degree Requirements Specialist in Education

Major Field: The following education courses are required: EDAS 501, 505; EDCI 511; EDFI 571 or 572, 596, and 597.

Area of Mathematics: Students must complete a minimum of 33 hours with at least 17 hours at the 500 level, to be approved by the graduate coordinator.

Area of Specialization: A minimum of 5 hours in mathematics education, EDCI 423 and 546 are recommended.

Cognate Field: A candidate with

Mathematics Supervision - Music

particularly strong preparation may be permitted to enroll for six or more hours of appropriate cognate work.

Internship or Field Experience: Each candidate for the degree of Specialist in Education with special-

ization in mathematics supervision must complete an intern experience involving supervisory work with school teachers in the field. This fieldwork must be for a minimum of five semester hours spread over at

least two semesters of the academic year. An intern registers for EDAS 605 under the supervision of an instructor or instructors designated by the departments of education and mathematics.

Music

Master of Music

Richard Kennell, Interim Dean,
College of Musical Arts
P. Thomas Tallarico, Interim Assistant Dean for Graduate Studies
Room: 1043 Moore Musical Arts Center
Phone: 419-372-2181

Graduate Faculty

Professors - Burton Beerman, D.M.A.; Vasile Beluska, M.M.; John Bentley, D.M.A.; Judith Bentley, M.M.; Vincent Corrigan, Ph.D.; F. Eugene Dybdahl, D.M.A.; Joyce Eastlund Gromko, D.M.E.; Jeffrey Halsey, M.M.; Vincent Kantorski, Ph.D.; Richard Kennell, Ph.D.; Barbara Lockard-Zimmerman, D.M.; Virginia Marks, M.A.; Andreas Poulimenos, M.M.; John Sampen, D.M.A.; Marilyn Shrude, D.M.; Alan Smith, D.M.A.; Herbert Spencer, M.M.; P. Thomas Tallarico, Ph.D.; Vernon Wolcott, D.M.A.

Associate Professors - Bonna Boettcher, D.M.A.; Velvet Brown, M.M.; Emily Freeman Brown, D.M.A.; Christopher Buzzelli, M.M.E.; Steven Cornelius, Ph.D.; David Harnish, Ph.D.; William Lake, Ph.D.; Nancy Lutes, M.M.; Myra Merritt, M.M.; Bruce Moss, Ph.D.; Mark Munson, D.M.A.; Mary Natvig, Ph.D.; Roger Schupp, D.M.A.; Jane Solose, D.M.A.; Gene Trantham, Ph.D.

Assistant Professors - Vincent Benitez, D.M.A., Ph.D.; Cynthia Stephens Benson, D.M.A.; Nancy Buck, M.M.; Elaine Colprit, M.M.; Victor Fung, Ph.D.; Carol Hess, Ph.D.; Penny Thompson Kruse, D.M.A.; Mikel Kuehn, Ph.D.; Yuan Xiong Lu, M.M.; William Mathis, D.M.A.; Laura Melton, D.M.A.; Barbara O'Hagin, Ph.D.; Jane Schoonmaker Rodgers, D.M.A.; Robert Satterlee, D.M.A.; Kevin Schempf, M.M.; Russell Schmidt, M.M.; Christopher Scholl, M.M.

The **Master of Music** degree program, offered by the **College of Musical Arts**, is designed to prepare musicians to practice their specialization in the changing environment of current American music culture. The program encompasses five emphases: music composition; music education; music history; music performance; and music theory.

The music education emphasis features five specializations—Plan I: basic, elementary general music, or conducting; and Plan II: basic or choral music education. Music history majors may select from two specializations: ethnomusicology and music history. Music performance majors may select from seven options: choral conducting; orchestral conducting; voice; piano; piano pedagogy; instrumental performance; and instrumental specialist. The instrumental specialist option consists of a concentration in a major instrument and at least two minor instruments within the brass, strings, and woodwind areas. Considerable flexibility is permitted within an individual program to meet the special needs of students.

Prerequisites to Graduate Work

Applicants should possess an appropriate undergraduate degree as well as potential for advanced study as evidenced by musical and intellectual abilities and achievements. In cases where an applicant is deficient in background, the departmental graduate faculty will require additional course work.

Admission Procedure

Applicants seeking admission to the Master of Music program should follow the instructions outlined in the "Graduate Admissions" section of this catalog. In addition to the general admission requirements set by the Graduate College, applicants must fulfill the following departmental requirements.

Applicants electing the performance or conducting options must

audition for area faculty. Applicants electing music history, music theory, or composition emphases must submit examples of their work with their applications. Music education applicants electing Plan II must have one year of full-time teaching experience.

Degree Requirements Master of Music

General Requirements: When they begin the program, students must take placement examinations in music history and music theory. Those who do not pass one or more portions are permitted one retest during the first semester of residence. If the retest is not passed, students must take the appropriate remedial course(s): MUCT 506, 507, and 508. These courses cannot be used to satisfy degree requirements.

A diagnostic test in ear training and sight singing is required of all entering theory majors. A single retest will be permitted during the student's first semester in residence. If test results are still unsatisfactory, the student will be required to take Graduate Aural Skills (MUCT 505) without degree credit.

Candidates in all programs, except music education-Plan II, must complete a minimum of 34 semester hours of graduate credit, with 15 semester hours specified as core requirements appropriate to each student's emphasis. An additional 12 semester hours are devoted to studies in music outside the major area. The final seven semester hours comprise the final project component. The instrumental specialization requires three additional hours because of instruction in two minor instruments.

Candidates in basic music education-Plan II must complete a minimum of 34 semester hours of graduate credit including a 14 semester hour core, eight semester hours of electives, and 12 semester hours of other studies in music which are chosen from academic courses in

Music

music and applied study or ensemble activities. A written and oral comprehensive examination will be administered following the completion of all course work. A minimum of one year of teaching experience is required of all students entering the basic music education-Plan II program.

Candidates in choral music education must complete a minimum of 34 semester hours of graduate credit, including a 14 semester hour core, nine to 11 hours of specialization courses, and 11 hours of electives chosen from academic courses and applied study. A written and oral comprehensive exam will be administered during the final semester after the completion of all studies in the major field. Students who have not had a least one year of full-time teaching experience, exclusive of student teaching, are required to enroll for a minimum of two credits of MUED 696/697, Supervised Practicum in Music Education, in addition to the 34 hours required in the degree. A maximum of two credits of MUED 696/697 may be counted toward the degree.

Specific degree requirements for each emphasis can be obtained from the graduate coordinators in the College of Musical Arts.

Ensemble and/or Applied Credit: A minimum of three semester hours of either ensemble or applied study are required for the Master of Music degree. Ensemble credit may be fulfilled by participation in one or more of the College's large choral and/or instrumental ensembles, or in selected small ensembles. Applied study is a limited enrollment course, with registration priority given to students in the performance option for whom applied study is a specific degree requirement. Others are accommodated on a space-available basis and must confer with the appropriate applied faculty member by the end of the first week of classes.

Final Project Requirement: At the culmination of the degree program, students are expected to present a final project appropriate to their area of specialization. Credit for this requirement is given under the course numbers MUCT/MUED/MUSP 699 or MUSP 698. Students may enroll for up to nine semester

hours of final project credit, but no more than three hours will be counted toward the degree. All submissions must follow the schedule of deadlines published by the Graduate College.

Candidates in performance are expected to fulfill the final project requirement by presenting a public recital or recitals according to the degree specifications, and completing either a comprehensive examination or a thesis. A reel-to-reel magnetic tape or CD recording of the recital(s) and a copy of the program(s) are to be submitted to the Assistant Dean for Graduate Studies in the College of Musical Arts. Performance students who follow the comprehensive examination option must submit a portfolio of work compiled during the course of the degree and pass a comprehensive examination based on the portfolio contents. Those following the thesis option must complete a written document on a subject related to their recital, performance medium, or its pedagogy.

Conducting majors are expected to compile on an audio tape 30 to 45 minutes of music consisting of repertory approved by the appropriate conducting faculty. Ensembles used by candidates will be assigned by the faculty from standing College ensembles, or approved by the faculty.

Music education-Plan I students are expected to submit a thesis on a substantive issue in music education. Music education majors who are excellent performers may, with the approval of the area performance faculty and the chair of music education, fulfill the thesis requirement by means of a recital and document.

Composition students fulfill the final project requirement by submitting the score of an original musical composition. Specific guidelines regarding the length and instrumentation of the composition are available through the College of Musical Arts office.

Students in music history and music theory must submit a thesis as part of the degree requirements.

Students whose final projects require the use of an audio tape or CD must comply with the College of Musical Arts criteria in recording and

editing. Further information is available in the CMA Final Project Handbook.

Examination Requirement: Music education-Plan II students must pass a written and oral comprehensive examination at the completion of all course work.

Students in music education-Plan I, music history, and music theory must pass a thesis defense. Students in music composition must either arrange for a premiere performance or defense of their final project composition. Students in music theory and music history must also pass a qualifying examination before beginning the thesis.

Musicology/Composition/Theory Courses for Graduates

MUCT 500. Small Ensembles (1) Fall, Spring. Collegium musicum of College of Musical Arts offered under supervision of composition/history department. Following small ensembles offered: Afro-Caribbean, Early Music, Balinese, Gamelan, and New Music. May be repeated.

MUCT 505. Graduate Aural Skills (3) Fall (alternate years). Sight singing; rhythmic, melodic, and harmonic dictation of diatonic and chromatic materials of the common-practice period.

MUCT 506. Survey of Music Theory (2) Fall, Summer. Review of music theory involving techniques of analysis and part-writing in chorale style.

MUCT 507. Survey of Music History I (2) Fall (alternate years), Spring (alternate years), Summer (alternate years). Survey of the history of music and musical style covering Medieval, Renaissance, and Baroque periods.

MUCT 508. Survey of Music History II (2) Fall (alternate years), Spring (alternate years), Summer (alternate years). Survey of the history of music and musical style covering Classical, Romantic, and Modern periods.

MUCT 511. Counterpoint I (2) Fall (alternate years). 16th-century counterpoint.

MUCT 512. Counterpoint II (2) Spring (alternate years). 18th-century counterpoint; tonal counterpoint in three and four voices; canon, inven-

Music

tion, fugue, chorale prelude.

MUCT 514. 20th-Century Analysis Seminar (3) Fall. 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.

MUCT 519. Seminar in Music Theory (3) Fall (alternate years). Seminar on a topic in music theory and/or analysis. Topic changes from year to year. May be repeated.

MUCT 520. History and Literature of Jazz (2) Fall. Jazz from African influences through present developments; personalities involved in stylistic change.

MUCT 522. Opera Literature (2) Fall (alternate years). Styles, interpretation, traditional performances of various schools.

MUCT 523. Chamber Music Literature (2) Fall (alternate years). Selected major chamber works of various periods. Reading on all forms and media.

MUCT 544. Music Technology I (3) Fall. Introduction to classical tape technique, analog voltage control synthesizers, and the history of analog electronic music. Introduction to digital sequencers. Small group composition projects. Prerequisite: none. Lab fee.

MUCT 545. Music Technology II (3) Spring. FM voice design and stacked wavetable synthesis. Sampling techniques and introduction to digital audio editing. Individual composition sequencer projects using voices of own design in digital audio sequencers. Student works are performed at the end of the semester. Prerequisite: MUCT 544. Lab fee.

MUCT 546. Music Technology III (3) Fall. Introduction to dedicated music programming languages. Introduction to MAX and Csound. Individual composition projects using these environments. Prerequisite: MUCT 545. Lab fee.

MUCT 547. Music Technology IV (3) Spring. Continued work with dedicated music programming languages. Alternative synthesis methods. Introduction to algorithmic composition. Student works are performed at the end of the semester.

Prerequisite: MUCT 546. Lab fee.

MUCT 580/581. Seminar in Music (1-4) 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 the graduate coordinator. MUCT 580 for a grade; MUCT 581 graded S/U.

MUCT 586/587. Workshop in Music (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 advisor if graduate program credit is desired; at discretion of student for recertification or for personal growth. May be repeated. MUCT 586 for a grade; MUCT 587 graded S/U.

MUCT 602. Research Techniques (2) Fall, Summer (alternate years). Study of music bibliography and research skills, practical experience in the development of writing skills. Required of each graduate music student, Plan I only.

MUCT 613. Theory Pedagogy (3) Spring (alternate years). Comparative study of philosophies, techniques, and materials for teaching music theory, with practical applications.

MUCT 614. Advanced Structural Analysis (3) Spring (alternate years), Summer (alternate years). Techniques of understanding music from standpoint of form, harmony, and orchestration. Prerequisite: MUCT 506 or equivalent.

MUCT 616. Composition (1-4) Private composition lessons. May be repeated. A limited enrollment course, with registration priority given to composition majors. Others accommodated on a space-available basis by interview and upon review of portfolio.

MUCT 617. Techniques for Analysis of Twentieth-Century Music (3) Spring (alternate years). Study of selected analytical techniques for twentieth-century music, primarily pitch-class set theory and twelve-tone (serial) theory. Prerequisite: MUCT 506 or equivalent.

MUCT 618. Schenkerian Analysis (3) Spring (alternate years). Introduces Heinrich Schenker's techniques and develops skill in applying them to the analysis and performance of tonal music. Prerequisite:

MUCT 506 or equivalent.

MUCT 621. Seminar in Music History (3) Fall (alternate years), Spring (alternate years), Summer (alternate years). Alternates with MUCT 624. Advanced topical seminar on source readings in selected period of music history. Prerequisites: MUCT 507 and MUCT 508 or equivalent.

MUCT 622. Seminar in Music Literature (3) Spring (alternate years), Summer (Alternate years). Advanced topical seminar on source readings in genres of music literature. Prerequisite: MUCT 507 and MUCT 508 or equivalent.

MUCT 623. Seminar in Style Analysis (3) Spring (alternate years). Alternates with MUCT 622. Advanced topical seminar on source readings in musical style analysis. Prerequisite: MUCT 507 and MUCT 508 or equivalent.

MUCT 624. Seminar in Performance Practice (3) Fall (alternate years). Alternates with MUCT 621. Advanced topical seminar on source readings in history of performance practice. Prerequisite: MUCT 507 and MUCT 508 or equivalent.

MUCT 625. Seminar in Musical Notation I (3) Fall (alternate years). Advanced topical seminar on the history of Renaissance notation. Prerequisite: MUCT 507 or equivalent.

MUCT 626. Seminar in Musical Notation II (3) Spring (alternate years). Advanced topical seminar on the history of Medieval notation. Prerequisite: MUCT 625.

MUCT 627. Seminar in the History and Literature of Ethnomusicology (3) Fall. Source readings pertaining to the historical development of ethnomusicology, plus study of literature dealing with important contemporary issues from both within the discipline and related fields.

MUCT 628. Problems and Techniques in Ethnomusicology (3) Spring (alternate years). Seminar in fieldwork methods and ethics, transcription and analysis, laboratory techniques, computer and music technology applications.

MUCT 629. Seminar in Ethnomusicology (3) Spring (alternate years). Advanced topical seminar in specific music culture areas.

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MUCT 680/681. Seminar in Music (1-4) 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 coordinator. MUCT 680 for a grade; MUCT 681 graded S/U.

MUCT 686. Special Problems in Music (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator.

MUCT 687. Independent Study in Music (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator. Graded S/U.

MUCT 688/689. Internship in Music (1-4). Supervised professional experience in setting related to specialization. Prerequisites: any field placement must be approved by supervisor/instructor; consent of advisor. MUCT 688 for a grade; MUCT 689 graded S/U.

MUCT 690/691. Directed Research in Music (2) Spring. Designed to address the special research needs of the major. Prerequisites: MUCT 602. MUCT 690 for a grade; MUCT 691 graded S/U.

MUCT 694/695. Workshop in Music (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 advisor if graduate program credit is desired at discretion of student for recertification or for personal growth. May be repeated. MUCT 694 for a grade; MUCT 695 graded S/U.

MUCT 696/697. Supervised Practicum in Music (1-4). Supervised individualized teaching experience in area of specialization. May be repeated upon approval of advisor. Prerequisite: consent of instructor and consent of advisor. MUCT 696 for a grade; MUCT 697 graded S/U.

MUCT 699. Thesis Research (1-12). Credit for thesis or final composition. 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.

Minimum acceptable total for degree is three hours. Prerequisite: MUCT 690. Graded S/U.

Music Education Courses for Graduates

MUED 500. Small Ensembles (1). Designed to provide the student with a variety of chamber music experiences, such as strings, brass, woodwind. Formed under the supervision of the College of Musical Arts and offered on demand. May be repeated.

MUED 502. Beginning Wind and Percussion Instrument Repair (1) Spring. Basic practices and techniques.

MUED 580/581. Seminar in Music Education (1-4). 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 the graduate coordinator. MUED 580 for a grade; MUED 581 graded S/U.

MUED 586/587. Workshop in Music Education (1-4). Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of advisor if graduate program credit is desired; at discretion of student for recertification or for personal growth. May be repeated. MUED 586 for a grade; MUED 587 graded S/U.

MUED 612. Advanced Band Conducting (3) Summer (alternate years). Supplements and complements each individual preparation in band conducting.

MUED 613. Seminar in Band Performance (3) Summer (alternate years). Philosophical, organizational, and musical problems associated with marching and concert bands in the public school instrumental music programs. Consideration of standard repertory and problems of conducting these works. May be repeated to six hours.

MUED 621. Psychology of Music (3) Fall and alternate summers with MUED 622. Psychological responses to music including the role of memory, rhythmic and melodic organization, affective responses, musical talent, learning and reading music.

MUED 622. Source Readings in

Music Education (3) Fall and alternate summers with MUED 621. Aesthetic basis of music education related to positions of prominent philosophers and educators. Development of personal philosophy of music education.

MUED 623. Building Instructional Programs in Music (3) Spring and alternate summers with MUED 690. Application of humanist and behaviorist views, concept learning, sequencing and assessment of musical instruction and motivation to the development of instructional programs in music education. Prerequisites: MUED 621 and MUED 622, or consent of instructor.

MUED 624. Multicultural Issues in Music Education (3) Fall. Approaches of using world musics in the classroom and music education with culturally diverse learners. Examine cross-cultural issues, materials, and techniques in music education. Prerequisite: graduate music education major or consent of instructor.

MUED 631. Kodaly Approach in Elementary Music Instruction (3) Summer (on demand). 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.

MUED 632. Music in Special Education (3) Summer (on demand). This course is designed for educators who are interested in teaching music to special learners in various school music settings. Participants will become acquainted with the learning characteristics of exceptional children and teaching methods and materials.

MUED 633. Seminar in College Music Teaching (2) Fall. Priority given to first semester graduate assistants; open to all music graduates. One-hour seminar class; one-hour meeting with assigned music faculty supervisor. Consent of instructor required for students without assistantships.

MUED 635. The Application of Technology to Music Teaching (3) Spring. Designed to identify recent technological developments and examine their practical applications to music teaching in the school setting. Prerequisite: consent of

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instructor.

MUED 638. Seminar in Current Issues and Topics in Music Education (3) Fall, On demand. A course designed to examine contemporary issues in music education through the presentation and critical review of individual research projects in a seminar setting. Prerequisite: MUED 623 and MUCT 690. Enrollment limited to Plan II (non-thesis) MUED students.

MUED 680/681. Seminar in Music Education (1-4). 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 the graduate coordinator. MUED 680 for a grade; MUED 681 graded S/U.

MUED 686. Special Problems in Music Education (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator.

MUED 687. Independent Study in Music Education (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator. Graded S/U.

MUED 688/689. Internship in Music Education (1-4). Supervised professional experience in setting related to specialization. Prerequisites: any field placement must be approved by supervisor/instructor; consent of advisor. MUED 688 for a grade; MUED 689 graded S/U.

MUED 690/691. Directed Research in Music Education (2) Spring and alternate summers with MUED 623. Designed to address the special research needs of the major. Prerequisites: Plan I - MUCT 602; Plan II - MUED 622 and MUED 623. MUED 690 for a grade; MUED 691 graded S/U.

MUED 694/695. Workshop in Music Education (1-4). Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of advisor if graduate program credit is desired; at discretion of student for recertification or for personal growth. May be

repeated. MUED 694 for a grade; MUED 695 graded S/U.

MUED 696/697. Supervised Practicum in Music Education (1-4). Supervised individualized teaching experience in area of specialization. May be repeated upon approval of advisor. Prerequisite: consent of instructor and graduate advisor. MUED 696 for a grade; MUED 697 graded S/U.

MUED 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

MUED 699. Thesis Research (1-12). Credit for final project: thesis or recital/document. 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. Minimum acceptable total for degree is three hours. Prerequisite: MUED 690. Graded S/U.

Music Studies—Performance Courses for Graduates

MUSP 500. Small Ensembles (1). Designed to provide the student with a variety of chamber music experiences, such as strings, brass, woodwind. Formed under the supervision of the College of Musical Arts and offered on demand. May be repeated.

MUSP 502. Jazz Composition (2) Fall (alternate years). Detailed analysis of modern jazz works, including the study of innovative compositional techniques used by historically significant writers. Numerous student writing projects for jazz combo are required.

MUSP 505. Opera Theater (3) Fall, Spring. Designed to develop stage techniques for advanced students in production of scenes and complete operas.

MUSP 506. Organ Construction (2) Spring (on demand). History of design and construction of the organ. Prerequisite: consent of instructor.

MUSP 507. Church Music (2) Spring (on demand). Music of the major Western religions; plainsong, hymnology, liturgies. Prerequisites: MUCT 261 and 262 or equivalent.

MUSP 520. History and Literature of Jazz (2) Spring (alternate years). Jazz from African influences through present developments;

personalities involved in stylistic change.

MUSP 522. Orchestral Audition Repertoire for Violin (1) On demand. Study and performance of orchestral excerpts and other audition repertoire. May be repeated for credit. Prerequisite: consent of instructor.

MUSP 538. Concert or Symphonic Band, Fall Wind Ensemble (1-2). Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 539. Marching Band (2) Fall. Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 540. Philharmonia (2) Fall, Spring. Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 551. Piano Repertoire (3) Fall (alternate years). Research into piano repertoire. Required of students majoring in applied piano. May be repeated to six hours.

MUSP 552. Piano Pedagogy (3) Spring (alternate years). Research into piano pedagogy. Required of students majoring in applied piano. May be repeated to six hours.

MUSP 553. Brass Repertoire and Pedagogy (3) Fall. Research into brass repertoire and pedagogy. Required of all students majoring in applied brass instruments. May be repeated to six hours.

MUSP 554. Woodwind Repertoire and Pedagogy (3) Spring. Research into woodwind repertoire and pedagogy. Required of students majoring in applied woodwind instruments. May be repeated to six hours.

MUSP 557. Vocal Repertoire and Pedagogy (3) Spring. Research into vocal repertoire and pedagogy. Required of students majoring in applied voice. May be repeated to six hours.

MUSP 558. String Repertoire and Pedagogy (3) Spring. Research into string repertoire and pedagogy. Required of students majoring in applied string instruments. May be repeated to six hours.

MUSP 559. Organ Repertoire and Pedagogy (3) On demand. Research into organ repertoire and pedagogy. Required of students majoring in applied organ. May be

Music

repeated to six hours.

MUSP 576. University Choral Society (1) Fall, Spring. The University Choral Society sings the major choral repertoire that is performed with orchestra. Membership is open to all members of the university community, as well as singers from the greater BG area. Prerequisite: audition.

MUSP 577. A Capella Choir (1) Fall, Spring. Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 578. Collegiate Chorale (2) Fall, Spring. Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 579. University Chorus (1) Summer. Admission by audition only. May be used to fulfill required and elective ensemble hours.

MUSP 580/581. Seminar in Music Performance (1-4). 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 the graduate coordinator. MUSP 580 for a grade; MUSP 581 graded S/U.

MUSP 586/587. Workshop in Music Performance (1-4). Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of advisor if graduate program credit is desired; at discretion of student for recertification or for personal growth. May be repeated. MUSP 586 for a grade; MUSP 587 graded S/U.

MUSP 606. Advanced Choral Conducting (3) Summer. Supplements and complements each student's own individual preparation in choral conducting. Prerequisite: consent of instructor.

MUSP 607. Seminar in Choral Performance (3) Spring (alternate years), Summer (alternate years). Structure and form of standard repertoire of choral literature; consideration of problems of conducting these works. May be repeated to six hours.

MUSP 608. Choral Literature (3) Spring (alternate years), Summer (alternate years). 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.

MUSP 614. Ensemble Literature for Winds (3) Summer (alternate years). Chronological study and analysis by recordings and scores of instrumental works for large and small wind ensembles of more than five instruments from pre-Renaissance to present. Emphasis on gaining repertoire suitable to various performance levels.

MUSP 616. Advanced Orchestral Conducting (3) Spring. Supplements and complements each student's individual preparation in orchestral conducting.

MUSP 617. Seminar in Orchestral Performance (3) Fall, Spring. Structure and form of standard orchestral repertoire; consideration of problems of conducting these works. May be repeated to six hours. Prerequisite: MUSP 616 and consent of instructor.

MUSP 618. Score Reading and Analysis (3) Fall. 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.

MUSP 649. Piano Pedagogy Practicum (1) Fall, Spring. Supervised teaching of either private or class piano. Prerequisite: MUSP 552 or consent of instructor.

MUSP 650. Introduction to Adult Group Piano Teaching (3) Spring (alternate years), On demand. A survey of materials, supervised teaching, technology, and program development appropriate for the adult-level class. Open to students with a strong piano background. Prerequisite: consent of instructor.

MUSP 664. Piano Repertoire I (3) Fall (alternate years). Research into piano repertoire composed prior to the nineteenth century. Required of students majoring in applied piano.

MUSP 665. Piano Pedagogy I (3) Fall (alternate years). Research into piano pedagogy relating to the beginning pre-college student through to the intermediate. Required of students majoring in applied piano.

MUSP 666. Piano Repertoire II

(3) Spring (alternate years). Research into piano repertoire of the nineteenth and twentieth centuries. Required of students majoring in applied piano.

MUSP 667. Piano Pedagogy II (3) Spring (alternate years). Research into piano pedagogy. Required of students majoring in applied piano.

MUSP 680/681. Seminar in Music Performance (1-4). 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 the graduate coordinator. MUSP 680 for a grade; MUSP 681 graded S/U.

MUSP 686. Special Problems in Music Performance (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator.

MUSP 687. Independent Study in Music Performance (1-4). Selected areas and problems treated in-depth. Offered to individual students or to groups of students as needed. Prerequisite: consent of instructor and graduate coordinator. Graded S/U.

MUSP 688/689. Internship in Music Performance (1-4). Supervised professional experience in setting related to specialization. Prerequisites: any field placement must be approved by supervisor/instructor; consent of advisor. MUSP 688 for a grade; MUSP 689 graded S/U.

MUSP 690/691. Directed Research in Music Performance (2) Spring. Designed to address the special research needs of the major. Prerequisites: MUCT 602. MUSP 690 for a grade; MUSP 691 graded S/U.

MUSP 694/695. Workshop in Music Performance (1-4). Study, readings, and development of materials related to needs of practitioner. Topics vary from semester to semester. Must have approval of advisor if graduate program credit is desired; at discretion of student for recertification or for personal growth. May be repeated. MUSP 694 for a grade; MUSP 695 graded S/U.

MUSP 696/697. Supervised Practicum in Music Performance (1-4). Supervised individualized teaching experience in area of special-

Music

ization. May be repeated upon approval of advisor. Prerequisite: consent of instructor and graduate advisor. MUSP 696 for a grade; MUSP 697 graded S/U.

MUSP 698. Recital and Portfolio (1-12). Supervised independent study encompassing all phases of preparation for the MM Recital and Portfolio. Enrollment in excess of three hours is acceptable for Plan II master's degree, but no more than three hours will be counted towards degree. Minimum acceptable total for degree is three hours. Prerequisite: MUSP 690. Graded IP/S.

MUSP 699. Thesis Research (1-12). Credit for final project: recital/document. 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. Minimum acceptable total for degree is three hours. Prerequisite: MUSP 690. Graded S/U.

Secondary Applied Music - Individual Instruction

Individual study in applied music is offered in piano, harpsichord, voice, organ, and all string, wind, and brass instruments for students with little or no prior experience with the instrument/voice. A fee is assessed for individual instruction. A student enrolled for applied music has access to practice rooms and equipment, in accordance with schedules and regulations determined by the College of Musical Arts. Applied instruction is a limited enrollment course, with registration priority given to students in the performance option for whom applied study is a degree requirement. Others accommodated on a space-available basis and must confer with the appropriate applied faculty member by the end of the first week of classes. Consent of instructor is required.

MUSP 521. SECONDARY APPLIED PERCUSSION (1 hour)

MUSP 523. SECONDARY APPLIED VIOLIN (1 hour)

MUSP 524. SECONDARY APPLIED VIOLA (1 hour)

MUSP 525. SECONDARY APPLIED CELLO (1 hour)

MUSP 526. SECONDARY APPLIED DOUBLE BASS (1 hour)

MUSP 527. SECONDARY AP-

PLIED HARP (1 hour)

MUSP 528. SECONDARY APPLIED GUITAR (1 hour)

MUSP 531. SECONDARY APPLIED TRUMPET (1 hour)

MUSP 532. SECONDARY APPLIED FRENCH HORN (1 hour)

MUSP 533. SECONDARY APPLIED TROMBONE (1 hour)

MUSP 535. SECONDARY APPLIED TUBA (1 hour)

MUSP 536. SECONDARY APPLIED EUPHONIUM (1 hour)

MUSP 541. SECONDARY APPLIED FLUTE (1 hour)

MUSP 542. SECONDARY APPLIED OBOE (1 hour)

MUSP 543. SECONDARY APPLIED CLARINET (1 hour)

MUSP 544. SECONDARY APPLIED SAXOPHONE (1 hour)

MUSP 545. SECONDARY APPLIED BASSOON (1 hour)

MUSP 546. SECONDARY APPLIED JAZZ SAXOPHONE (1 hour)

MUSP 547. SECONDARY APPLIED JAZZ TRUMPET (1 hour)

MUSP 548. SECONDARY APPLIED JAZZ TROMBONE (1 hour)

MUSP 555. SECONDARY APPLIED JAZZ PERCUSSION (1 hour)

MUSP 556. SECONDARY APPLIED JAZZ BASS (1 hour)

MUSP 560. SECONDARY APPLIED JAZZ GUITAR (1 hour)

MUSP 561. SECONDARY APPLIED PIANO (1 hour)

MUSP 562. SECONDARY APPLIED HARPSICHORD (1 hour)

MUSP 563. SECONDARY APPLIED ORGAN (1 hour)

MUSP 569. SECONDARY APPLIED JAZZ PIANO (1 hour)

MUSP 572. SECONDARY APPLIED VOICE (1 hour)

Applied Music - Individual Instruction

Individual study in applied music is offered in piano, harpsichord, voice, organ, and all string, wind, and percussion instruments. A fee is assessed for individual instruction. A student enrolled for applied music has access to practice rooms and equipment, in accordance with schedules and regulations determined by the College of Musical Arts. Applied instruction is a limited enrollment course, with registration priority given to students in the performance option for whom applied study is a degree requirement. Others accommodated on a space-available

basis and must confer with the appropriate applied faculty member by the end of the first week of classes.

Consent of instructor may be required for registration for more than one credit hour.

MUSP 621. APPLIED PERCUSSION (1-4 hours)

MUSP 623. APPLIED VIOLIN (1-4 hours)

MUSP 624. APPLIED VIOLA (1-4 hours)

MUSP 625. APPLIED CELLO (1-4 hours)

MUSP 626. APPLIED DOUBLE BASS (1-4 hours)

MUSP 627. APPLIED HARP (1-4 hours)

MUSP 628. APPLIED GUITAR (1-4 hours)

MUSP 631. APPLIED TRUMPET (1-4 hours)

MUSP 632. APPLIED FRENCH HORN (1-4 hours)

MUSP 633. APPLIED TROMBONE (1-4 hours)

MUSP 635. APPLIED TUBA (1-4 hours)

MUSP 636. APPLIED EUPHONIUM (1-4 hours)

MUSP 641. APPLIED FLUTE (1-4 hours)

MUSP 642. APPLIED OBOE (1-4 hours)

MUSP 643. APPLIED CLARINET (1-4 hours)

MUSP 644. APPLIED SAXOPHONE (1-4 hours)

MUSP 645. APPLIED BASSOON (1-4 hours)

MUSP 646. APPLIED JAZZ SAXOPHONE (1-4 hours)

MUSP 647. APPLIED JAZZ TRUMPET (1-4 hours)

MUSP 648. APPLIED JAZZ TROMBONE (1-4 hours)

MUSP 655. APPLIED JAZZ PERCUSSION (1-4 hours)

MUSP 656. APPLIED JAZZ BASS (1-4 hours)

MUSP 660. APPLIED JAZZ GUITAR (1-4 hours)

MUSP 661. APPLIED PIANO (1-4 hours)

MUSP 662. APPLIED HARPSICHORD (1-4 hours)

MUSP 663. APPLIED ORGAN (1-4 hours)

MUSP 669. APPLIED JAZZ PIANO (1-4 hours)

MUSP 672. APPLIED VOICE (1-4 hours)

Organization Development

Master of Organization Development

Joyce Hyslop, Program Coordinator
Room: 3009 College of Business
Administration
Phone: 419-372-8823
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Designed for performance managers, human resource and training professionals, owners of small businesses, consultants, and recent college graduates, the Master of Organization Development degree program can be completed as an executive (part-time) or traditional (full-time) program. Executive M.O.D. classes meet on weekends during the summer, fall, and spring semesters. Full-time M.O.D. classes meet during regular class periods in the fall, spring semesters. The program is designed to develop new management skills in enhancing organizational performance and individual performance, thereby helping students meet the changing demands of global competition.

Prerequisites to Graduate Work

Applicants must have a bachelor's degree from an accredited institution. In addition, proficiencies in prerequisite fields must be demonstrated by completing appropriate course work.

Executive M.O.D. students may demonstrate competency in prerequisite fields either by completing appropriate course work or by passing an examination based upon self-study learning packages.

Employers of Executive M.O.D. applicants must endorse participation in order to permit student research in their organization and to provide an opportunity for application of program concepts and technology.

Admission Procedure

Applicants seeking admission to the M.O.D. and Executive M.O.D. programs should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants are reviewed by the M.O.D. advisory committee, which makes an admission recommendation

to the Graduate College.

Degree Requirements Master of Organization Development

For full-time students, the program represents an 18-month resident period requiring at least 33 semester hours of graduate credit for graduation. For Executive M.O.D. students, the program represents an 18-month period requiring at least 30 semester hours of graduate credit for graduation.

The Executive M.O.D. program begins with the first weekend typically held in mid-May. Students then follow a sequence of courses through the program in accordance with a prearranged schedule. Executive M.O.D. students enroll in two courses (two weekends each) in the summer, fall, and spring semesters.

In addition to seven ORGD courses (ORGD 601 through 606) and a capstone course (ORGD 607 or 691), students must successfully complete MBA 632, MBA 608, and STAT 600 to fulfill the requirements for the degree.

Full-time students attend classes during traditional class periods during the fall and spring semesters. Full-time students are required to complete an internship, which usually takes place during the summer semester.

Courses for Graduates

ORGD 601. Introduction to Organization Development and Change (3) An overview of organization development and change; includes the history of OD/C, ethics, literature, and the principal behavioral theories on which OD/C is based. The action research model is presented as a basis for development of knowledge, skills, and values in OD/C.

ORGD 602. Consultation and Intervention (3) Study of the consultation process including the skills and techniques involved in action research. Focus on entry, contracting, organizational scanning, preliminary diagnosis, and individual and intragroup interventions including coaching, process consultation, teaming, sensitivity training, and behavior modeling.

ORGD 603. Organizational

Strategy, Design, and Change (3). Study of how organizations adapt to change by strategizing and organizing. Focus on pressures for change that come from within the organization as well as external pressures exerted on organizations by competitive forces, macro-environmental trends, and discontinuous shifts.

ORGD 604. Organizational Diagnostic Methods (3). Use of research methods for organizational diagnosis and evaluation. Applied research methods focusing on measures of organizational and change process effectiveness, qualitative and quantitative research designs, and the role of research in organizational development and change.

ORGD 605. Data Collection and Feedback Processes (3). Use of techniques for collecting, analyzing, and feeding back data to the organization. Focus on qualitative and quantitative collection procedures, statistical tools, and analysis protocol; techniques for presenting results to the organization, and utilization of results for intervention design and evaluation. Prerequisite: STAT 500 or consent of program coordinator.

ORGD 606. Large Scale Change Process (3). Development, adaptation, and application of intervention techniques emphasizing inter-group, organizational, and transorganizational issues; includes socio-technical systems, visioning, cultural analysis, work redesign, organizational restructuring, supplier development, joint ventures, and mergers. Prerequisite: ORGD 601.

ORGD 607. Integrating the Organization Development and Change Process (3). Capstone course integrating the knowledge and skills acquired in previous ORGD courses. Prerequisite: admission into the Master of Organization Development Program and ORGD 601, 602, 603, 604, 605, and 606.

ORGD 689. Organization Development Internship (1-3). Application of concepts, theory, and skills in an organizational setting. Internship assignment arranged with sponsoring organizations. Full-time students only. Graded S/U.

ORGD 691. Organization Development Research Project (3).

Organization Development - Philosophy

Research project on organization development and change topic. Advisor and topic must be approved by MOD graduate coordinator. Prerequisites: admission into MOD

program and ORGD 601, 604, and 605.

ORGD 699. Thesis Research (1-12). Credit for thesis study. Minimum acceptable for MOD degree is six

hours. Students must be enrolled continuously each semester, not including summer, until thesis is completed. Graded S/U.

Philosophy (Applied) Master of Arts Doctor of Philosophy

James Child, Chair
David Copp, Director of Graduate Studies
Christopher Morris, Graduate Admissions Officer
Room: 305 Shatzel
Phone: 419-372-2117

Graduate Faculty

Professors - Michael Bradie, Ph.D.; James Child, Ph.D.; David Copp, Ph.D.; Raymond G. Frey, Ph.D.; Louis Katzner, Ph.D.; Loren Lomasky, Ph.D.; Fred Miller, Ph.D.; Christopher Morris, Ph.D.; Michael Robins, Ph.D.; Donald Scherer, Ph.D.
Associate Professors - Marvin Belzer, Ph.D.; Kathleen Dixon, Ph.D.; Sara Worley, Ph.D.
Assistant Professors - Donald Callen, Ph.D.; Marina Oshana, Ph.D.; David Sobel, Ph.D.

The **Department of Philosophy** offers two distinct programs leading to the degrees of **Master of Arts** and **Doctor of Philosophy**. Graduate programs combine areas of applied philosophy, such as philosophy of medicine, law, business, and the environment, with training in the appropriate historical, methodological, and theoretical approaches to traditional areas of philosophy, such as moral and political philosophy, epistemology, metaphysics, and logic. The programs are flexible both with respect to areas of specialization and career interests.

The Ph.D. program is an integrated six-year program designed for students working toward the doctorate. The M.A. is granted as part of the total program.

The special M.A. program is intended for students who have no intention to proceed to do doctoral studies in philosophy.

As an integral part of their studies in either program, students may undertake internships involving work of up to 15 weeks in nonacademic settings such as federal or state agencies, hospitals, corporations, charitable institutions, research centers, and foundations, or take a substantial number of courses in some other discipline.

Prerequisites to Graduate Work

The preferred foundation for graduate work is a major or minor in philosophy. However, applicants with less than this level of preparation who have a strong interest in philosophy are encouraged to apply. Remedial work may be required for those students judged to have deficiencies in their preparation.

Admission to the Ph.D. program does not require the completion of any graduate work beyond the bachelor's degree.

Admission Procedure

Applicants seeking admission to the graduate programs in philosophy should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants should also contact the departmental graduate admissions officer for application materials.

Degree Requirements

Ph.D. Program: Master of Arts

Students must complete the 20-hour Group A core consisting of the pro-seminar (PHIL 601), one course each in logic and analysis (PHIL 603), history of ancient philosophy (PHIL 611), history of modern philosophy (PHIL 612), and either history of moral philosophy (PHIL 621) or history of political philosophy (PHIL 622). The one-hour seminar designed to prepare students to teach philosophy (PHIL 650) is also required. This core must be supplemented by an additional seven four-hour seminars or courses in philosophy.

Students must satisfy requirements for the M.A. under Plan II by taking a two-part M.A. examination consisting of: (1) The M.A. essay,

which is submitted early in the second semester of the student's second year in the program, and (2) The M.A. research skills test, written early in the second semester of the student's second year in the program.

Ph.D. Program: Doctor of Philosophy

Students must fulfill all of the following requirements: (1) the M.A. core course requirement (20 hours) plus PHIL 650; (2) an additional 44 hours in courses or seminars in philosophy, including the 32-hour Group B core; (3) the preliminary examination and approval of the dissertation topic; and (4) the dissertation and the oral examination over the dissertation.

The 32-hour Group B core requirement consists of eight four-hour seminars or courses in philosophy from at least three of the following areas, with no more than four courses being counted from each area: (1) moral and social philosophy broadly conceived (if more than one course is counted from this area, at least one course must be in contemporary moral theory); (2) metaphysics, philosophy of the mind, and epistemology; (3) logic and philosophy of language; (4) philosophy of the natural and social sciences; and (5) philosophy of religion, aesthetics, etc.

There is no language requirement unless the student's dissertation supervisor and the department's director of graduate studies decide that it would be appropriate in light of the student's dissertation topic for the student to have a reading competency in a foreign language. The precise way in which the student will meet this requirement will be determined by the student's dissertation supervisor in consultation with the student and with the approval of the director of graduate studies. Prior to completing the language requirement, the student should submit a written plan for completing the requirement. The form may be secured from the graduate secretary and must be signed by the student's research

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supervisor and the director of graduate studies.

Students must take a preliminary examination after having completed approximately 60 semester hours of approved graduate work. The preliminary examination typically consists of an essay which the student writes and defends orally and which is designed to show that the student has the ability to do doctoral research in philosophy. The student's doctoral committee determines the exact nature of this examination. Students are admitted to degree candidacy upon successfully defending a dissertation prospectus, normally in conjunction with the preliminary examination.

To complete the requirements for the Ph.D. degree, students must complete a dissertation and pass an oral examination over the dissertation.

Early in their program, students must present a plan of study for the remainder of tenure within the program and arrange for an advisor to guide research throughout the program.

The plan of study must be designed to insure that the student finishes the program a broadly trained philosopher, competent to initiate, conduct, and interpret traditional and applied research. Within this framework, the provisions within a doctoral plan of study are flexible. Programs can be designed to prepare students in any one of the following areas: (a) academic careers in philosophy departments as moral and social philosophers (broadly conceived); (b) academic careers in philosophy departments in the subspecializations of applied philosophy, e.g., in philosophy of medicine, philosophy of law, philosophy of business, or environmental philosophy; (c) interdisciplinary academic careers; or (d) nonacademic careers in law and government, business, health care, or social service. The individual plan of study is worked out in collaboration with the advisor, subject to approval of the graduate coordinator.

Questions about requirements for the Ph.D. degree can be addressed to the philosophy department office.

Special M.A. Program: Master of Arts

This is a terminal M.A. program

designed for students who have no intention to proceed to do doctoral studies in philosophy. It is meant for students who want to do advanced work in applied philosophy as preparation for a career either in teaching or in a nonacademic career in law, government, business, health care, or social service.

Students form an M.A. committee of at least two members prior to enrollment in the first semester of the program. The specific course of study required of each student, including the details of the core requirement and the choice of core supplement, must be approved both by the student's M.A. committee and the department's Graduate Studies Committee.

Students must complete a minimum of 44 credit hours including a core requirement of six four-hour courses or seminars in philosophy (24 hours) and a core supplement (12 hours) consisting of either (a) the internship option or (b) three additional four-hour courses or seminars in philosophy. The internship option is completed by doing work in applied philosophy in some form other than taking courses in philosophy for 12 credit hours during the equivalent of one semester. An internship report is required to complete the internship option.

To complete the M.A., students submit an essay, write an examination, or complete a project, and may be required to take an oral examination, as appropriate to the student's course of study. The exact nature of the examination is determined by the student's M.A. committee together with the director of graduate studies and the Graduate Studies Committee.

Courses for Graduates

PHIL 512. Theory of Knowledge (4) Fall or Spring (alternate years). Survey of traditional epistemological issues and concepts combined with an in-depth treatment of some epistemological problem(s). Prerequisite: 12 hours of philosophy.

PHIL 514. Metaphysics (4) Fall or Spring (alternate years). Survey of traditional metaphysical issues and concepts combined with an in-depth treatment of some metaphysical problem(s). Prerequisite: 12 hours of

philosophy.

PHIL 515. Topics in American Philosophy (3) Fall or Spring. Theme or themes central to American philosophy. Prerequisite: one course in PHIL (excluding PHIL 103) or consent of instructor.

PHIL 525. Moral and Social Philosophy (4) Fall or Spring. An in-depth treatment of some theme in social philosophy combined with a survey of traditional ethical theories as a background to social philosophy. Prerequisite: 12 hours of philosophy.

PHIL 531. Topics in Philosophy of Science (4) Fall or Spring. 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 533. Philosophy and Physics of Space and Time (4) Spring. 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 580. Seminar in Philosophy (4) Fall, Spring. 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.

PHIL 584/585. Directed Readings in Philosophy (1-4). Supervised independent readings in a focused area of study. PHIL 584 for a grade; PHIL 585 graded S/U.

PHIL 586/587. Workshop in Philosophy (1-5). Study of a particular topic in an intensive format. Topics vary. PHIL 586 for a grade; PHIL 587 graded S/U.

PHIL 600. Pro-seminar (4). Introduction to selected topics in applied ethics or applied political philosophy with emphasis on the relation between these topics and central issues in contemporary

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normative theory and in the history of philosophy.

PHIL 603. Logic and Analysis

(4) An introduction to translation and proof procedures of propositional logic (excluding completeness, soundness, and meta-theory), first order predicate logic, and modalities. With an emphasis on applications to the philosophical issues and problems.

PHIL 604. Aesthetics (4) Fall or Spring. Advanced consideration of the nature of aesthetic attitude. Aesthetic experience studied in relation to formal, material, and associational values of the experienced object. Aesthetic types such as beautiful, sublime, tragic, and comic are analyzed.

PHIL 611. History of Ancient Philosophy (4). Metaphysics and epistemology in Plato and Aristotle. Possible discussion of other major ancient philosophers.

PHIL 612. History of Modern Philosophy (4) Metaphysics and epistemology in (at least) Descartes, Hume, and Kant.

PHIL 621. History of Moral Philosophy (4) A critical study of some of the major moral theories in the history of philosophy.

PHIL 622. History of Political Philosophy (4) A critical study of some of the major political theories in the history of philosophy.

PHIL 636. Applied Philosophy Seminar (4) Fall. Explores the application of philosophy to teaching and non-academic careers and examining the philosophical aspects of several specific social issues.

PHIL 650. Seminar in Teaching Applied Philosophy (1). A course designed to develop skills in teaching philosophy. To be taken by graduate students during the first semester of teaching assistantship. Graded S/U.

PHIL 651. Professional Development Seminar (1). A course designed to develop skills that applied philosophers need for success both in publishing and presenting their research and outside the context of research. May be repeated. Graded S/U.

PHIL 679. Seminar in American Culture Studies (4) Spring. 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 or problem, theme, or era. PHIL 679 is also listed in this catalog as ACS 679. During a given semester, a student may receive credit for only one of these courses.

PHIL 680. Seminar in Philosophy (4) Fall, Spring, or Summer. Systematic study of selected topics within the discipline. Content varies from one year or semester to the next. May be repeated.

PHIL 684/685. Directed Readings (1-4). 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 684 for a grade; PHIL 685 graded S/U.

PHIL 691. Directed Research in Applied Philosophy (1-4). Fall, Spring, or Summer. Examination of issues in practicum in terms of philosophical skills and concepts that have been developed in program. Aimed at development of and public defense of internship-related research project. Must be taken in conjunction with PHIL 697, Supervised Practicum. Students sign up initially for four hours and then one hour per semester until the report is defended. Graded S/U.

PHIL 694/695. Workshop in Philosophy (1-5) On demand. Study, readings, and development of materials related to needs of philosopher or teacher of philosophy. Topics vary from semester to semester. PHIL 694 for a grade; PHIL 695 graded S/U.

PHIL 697. Supervised Practicum (1-8) Fall, Spring, or 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 698. Portfolio Preparation (1-4). Supervised independent study in preparation for the portfolio comprehensive exam. Normally taken in the summer of the first year of the MA or in the fall or spring of the second year. May be repeated. No more than four hours may count toward the degree. Graded S/U.

PHIL 699. Thesis Research (1-12). 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. Graded S/U.

PHIL 703. Advanced Topics in Logic (4) Fall or Spring. Variable content with focus on advanced systems such as modal logics, deontic logics, logical theory, and topics in philosophical logic. May be repeated for credit.

PHIL 705. Topics in Philosophical Analysis and Interpretation I or II (4) Fall or Spring. In-depth examination of topics in logic and formal issues in the philosophy of language. Prerequisite: first order logic with identity (PHIL 603 or equivalent).

PHIL 711. Seminar in Social Philosophy (4) Alternate years. An in-depth examination of a topic or topics in social philosophy.

PHIL 712. Seminar in Ethics (4) Alternate years. An in-depth examination of some topics in moral philosophy. May be repeated.

PHIL 721. Professional Ethics (4) Fall or Spring. Philosophical analysis of the structure of professions focusing on the moral and social implications of their organization and interrelationships with emphasis on students' research and internship interests.

PHIL 722. Applied Decision Theory (4) Alternate years. An introduction to the formal theory of individual and collective choice and its application to issues having to do with, for example, individual decision, competitive markets, democratic choice, technology assessment, or public policy.

PHIL 723. Philosophy of Law (4) Alternate years. An in-depth examination of topics in the philosophy of law.

PHIL 731. Seminar in Metaphysics (4) Alternate years. An in-depth examination of a topic or topics prominent in contemporary metaphysics, for example, action theory, philosophy of mind, or philosophy of psychology. May be repeated.

PHIL 732. Seminar in Epistemology (4) Alternate years. An in-depth examination of a topic or topics

Philosophy - Photochemical Sciences

in contemporary epistemology. May be repeated.

PHIL 780. Seminar in Philosophy (4). Systematic study of selected topics within the discipline. Content varies from one year or semester to the next. May be repeated.

PHIL 784/785. Directed Readings (1-4). Advanced 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 784 for a grade; PHIL 785 graded S/U.

PHIL 791. Directed Research in

Applied Philosophy II (1-6). Fall, Spring, or Summer. Examination of issues in advanced practicum in terms of philosophical skills and concepts that have been developed in program. Aimed at development of a dissertation prospectus. Must be taken in conjunction with PHIL 797, Supervised Practicum II. Graded S/U.

PHIL 797. Supervised Practicum II (1-8) Fall, Spring, or Summer. An advanced, typically second, supervised experience designed to further enhance a student's ability to use philosophical thinking and concepts in dealing with

problems which arise in a specific job or vocation. May be repeated. Graded S/U.

PHIL 798. Readings for Preliminary Examination (1-12). Supervised independent readings in preparation for the doctoral preliminary examination. Graded S/U.

PHIL 799. Dissertation Research (1-16). Students must register for a minimum of 16 hours while working on their doctoral dissertation. A maximum of 24 hours may be counted toward the degree program.

Photochemical Sciences

Doctor of Philosophy

Douglas Neckers, Executive Director,
Center for Photochemical
Sciences

Michael Ogawa, Graduate Coordinator

Nora R. Cassidy, Graduate Program Specialist

Phone: 419-372-2033

Graduate Faculty

Professors - Douglas Neckers, Ph.D. (Chemistry); Michael Rodgers, Ph.D. (Chemistry); Deanne Snavely, Ph.D. (Chemistry)

Associate Professors - George Bullerjahn, Ph.D. (Biological Sciences); John Cable, Ph.D. (Chemistry); W. Robert Midden, Ph.D. (Chemistry); Michael Ogawa, Ph.D. (Chemistry)

Assistant Professors - Felix Castellano, Ph.D. (Chemistry); Michael Geusz, Ph.D. (Biological Sciences); Vladimir Popik, Ph.D. (Chemistry)

The **Doctor of Philosophy** program in photochemical sciences, offered by the **Center for Photochemical Sciences**, is designed for students with a background in physics, biological sciences, or chemistry. The interdisciplinary curriculum consists of a combination of course work and research. The course work prepares students with a solid foundation in photochemistry

and photophysics, and examines applications in fundamental areas of chemistry, biological sciences, physics, spectroscopy, and/or photopolymer science.

Prerequisites to Graduate Work

Applicants who show evidence of an outstanding undergraduate performance and research ability may enter directly into the Ph.D. program after completing the baccalaureate degree in chemistry, biological sciences, or physics. All other applicants must have completed a master's degree in one of the above areas and show evidence of outstanding research performance.

Admission Procedure

Applicants seeking admission to the Ph.D. in photochemical sciences program should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Doctor of Philosophy

Students must complete at least 90 credit hours of graduate credit (60 beyond the master's degree). These hours must include at least 16 hours of PCS 799. Each student's course of study is designed with the advice of the student's dissertation advisor to meet his or her needs and interests.

Students must take a qualification examination which covers research presented by invited scientists in the department seminar program and the Hall Lecture Series in the summer. This examination is taken at the beginning of the fourth semester.

Students are required to complete a preliminary examination to qualify

for doctoral candidacy after having completed or approached completion of at least 60 hours in the approved course of study beyond the baccalaureate degree. The preliminary examination consists of the written preparation and oral defense of an original research proposal.

Doctoral candidates must complete an independent research project acceptable to their dissertation committee. This research is to be described and evaluated in the dissertation. The final examination for the degree is an oral defense in which the student presents a seminar on the research and defends the results before the dissertation committee.

Courses for Graduates

PCS 701. Photochemistry and Photophysics 1 (3) Spring. Generation and nature of excited states. Evolution of excited states including radiative and nonradiative processes and energy transfer. Discussion of experimental techniques and modern instrumentation for characterization of excited states. Prerequisite: CHEM 614.

PCS 702. Photochemistry and Photophysics 2 (3) Fall. Photochemical reactions with discussions of various reaction types from the areas of chemical physics, inorganic photoprocesses, organic and organometallic photochemistry, photobiochemistry, polymer photochemistry and photoelectrochemistry applications, and experimental techniques in photochemistry. Prerequisite: PCS 701.

Photochemical Sciences - Physics and Astronomy

PCS 703. Materials and Light
(3) Fall. Discussed are the various interactions between light and materials, the study of materials with light, and the use of materials in the production and manipulation of light. Topics include theory, use and engineering of lasers, photoelectric effects and photoelectron spectroscopy, and optical materials.

PCS 716. Bioinorganic Chemistry
(3) Alternate years. Introduction to the role of inorganic chemistry in biological processes. Includes the study of the biological role of metal ions, structure, and function of metalloproteins, electron-transfer reactions, and medicinal applications of metal complexes. Prerequisites: CHEM 463 or consent of instructor.

PCS 717. Biorganic Chemistry
(3). Introduction to the organic chemistry that occurs during biological processes. The course includes the structure and function of major classes of enzymes, discussion of biological catalysis, and case studies highlighting medical applications of organic chemistry.

PCS 750-766. Research Topics in Photochemical Sciences (1-4). Advanced research seminars covering topics of current research and historical background in specialized fields of photochemical sciences. Prerequisite: consent of instructor. Graded S/U.

PCS 750. Research Topics in Photosynthesis.

PCS 751. Research Topics in Polymer Photochemistry and Photophysics.

PCS 752. Research Topics in

Photochemistry of Biomolecules.

PCS 753. Research Topics in Photoinitiated Electron Transfer Reactions and Photodynamic Therapy.

PCS 754. Research Topics in Vibrational Spectroscopy and Vibrational Overtone Activation.

PCS 755. Research Topics in Supramolecular Photochemistry.

PCS 756. Research Topics in Laser Spectroscopy.

PCS 757. Research Topics in Organic Photochemistry.

PCS 758. Research Topics in Inorganic Redox Processes.

PCS 759. Research Topics in Biophysical Chemistry.

PCS 760. Research Topics in Optoelectronics.

PCS 761. Research Topics in Behavior of Circadian Pacemaker Neurons.

PCS 766. Spectral Methods (3). Chemical structure determination using spectroscopic methods. Ultra-violet-visible absorption and emission, infrared and Raman spectroscopy, and mass spectrometry techniques. Magnetic resonance methods such as nuclear magnetic resonance and electron spin resonance. Two-dimensional NMR. Prerequisite: CHEM 506; CHEM 342; or consent of instructor.

PCS 780. Advanced Seminar in Photochemical Sciences (2). Formulation of a research proposal, development of the relevant bibliography, and oral presentation and discussion. Required for all Ph.D. degree candidates.

PCS 781. Seminar in Photo-

chemical Sciences (1). Selected topics in photochemical sciences. No more than two hours of credit in this course may be counted toward degree. Graded S/U.

PCS 782. Advanced Topics in Photochemical Sciences (1-6). Rigorous study at advanced level of specific topics in photochemical sciences. Prerequisite: consent of instructor.

PCS 783. Special Topics in Photochemical Sciences (1-6) Study of special topics of current interest in the photochemical sciences. Prerequisite: consent of instructor. Graded S/U.

PCS 785. Readings in Photochemical Sciences (1-4). Selected areas of research in photochemical sciences; proposed program of study must be approved by instructor. No more than six hours may apply to a degree program. Prerequisite: consent of staff member involved. Graded S/U.

PCS 787. Independent Study in Photochemical Sciences (1-9). Practice in the utilization of scientific literature and methods. Prerequisite: consent of instructor. Graded S/U.

PCS 791. Directed Research in Photochemical Sciences (1-9). Independent research on topic or problem approved by supervising instructor. Prerequisite: consent of instructor. Graded S/U.

PCS 799. Dissertation Research (1-16). Student must earn a minimum of 16 hours in this course while working on the doctoral dissertation. A maximum of 30 hours may be counted toward degree program.

Physics and Astronomy

Master of Arts in Teaching Master of Science

John Laird, Chair
Lewis Fulcher, Graduate Coordinator
Room: 104 Overman Hall
Phone: 419-372-2421

Graduate Faculty

Professors - Robert Boughton, Ph.D.; G. Comer Duncan, Ph.D.; Lewis Fulcher, Ph.D.; John Laird,

Ph.D.

Assistant Professor - Andrew Layden, Ph.D.; Bruno Ullrich, Ph.D.; Haowen Xi, Ph.D.

The Department of Physics and Astronomy offers programs leading to the degrees of **Master of Arts in Teaching**, **Master of Science**, and a **cooperative Ph.D.** in collaboration with the University of Toledo. The curriculum of the programs emphasizes applications as well as a solid foundation for pre-Ph.D. training. Course work focuses on developing skills in several areas of emphasis:

astrophysics; computational physics; theoretical physics; solid state physics; and materials science. All graduate students are involved in research as part of the degree program.

The M.A.T. degree program is designed to prepare students for a physics teaching career or to provide enrichment for practicing teachers. The cooperative Ph.D. program enables qualifying students to take courses at BGSU and at UT and to move to UT for their Ph.D. under the direction of either BGSU or UT faculty in physics and astronomy.

Physics and Astronomy

Prerequisites to Graduate Work

Applicants should have the equivalent of a bachelor's degree with a major in physics, or a minor in physics and a major in a cognate field from an accredited institution. Applicants should also have taken a minimum of one year of undergraduate chemistry. Applicants with prerequisite deficiencies may be required to take undergraduate course work or satisfactorily complete an examination as a condition of admission.

M.A.T. applicants must have at least one year's teaching experience and hold a valid teaching certificate from the state in which they are teaching.

Cooperative Ph.D. Program

For students wishing to obtain a Ph.D. in Physics, the cooperative program with the Department of Physics and Astronomy at the University of Toledo is an option. Graduate students at BGSU would complete requirements for the Master of Science at BGSU and take the Ph.D. qualifying exam offered by the University of Toledo. After successfully passing that examination, the student would be admitted to the University of Toledo's program and could take courses at the University of Toledo and at BGSU. After being admitted to candidacy, students may engage in dissertation research with BGSU, UT, or faculty from both BGSU and UT.

Admission Procedure

Applicants seeking admission to the graduate programs in physics and astronomy should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog.

Master of Science

The M.S. degree is offered under two plans.

Plan I: Candidates must complete a minimum of 30 semester hours of 500- and 600-level courses approved for graduate credit including a minimum of 26 hours in physics. Students are required to take PHYS 601, 602, 603, 604, 605, and 606, for

a total of 18 semester hours. Students must also register for two hours of PHYS 681 per semester in each of four semesters. In addition to the above 26 hours in the major field, candidates must present a formal thesis and pass an oral examination on the thesis.

A specialization in Materials Science is available. The student must take PHYS 610, and PHYS 6540-6550 at the University of Toledo. A thesis on some materials topic must be completed.

Plan II: Candidates must complete a minimum of 32 semester hours of 500- and 600-level courses approved for graduate credit including two hours in PHYS 691—Directed Research in Physics—for a minimum of 28 hours in physics. Students are required to take PHYS 601, 602, 603, 604, 605, and 606, and PHYS 691 for a total of 20 semester hours. Students must also register for two hours of PHYS 681 per semester in each of four semesters. As an important part of the research seminar work, the student must submit a scholarly paper and pass a final written comprehensive examination covering selected fields.

For students pursuing a specialization, both Plan I and Plan II require additional course work.

Courses for Graduates

PHYS 501. Methods of Mathematical and Computational Physics I (4) Fall. Survey of basic methods of mathematical techniques applied to physics, including linear algebra, ordinary differential equations, and vector calculus with emphasis on how these concepts are used in physics. Parallel development is given to numerical methods used to solve physical problems. Use of an appropriate scientific programming language is included. Four lecture-recitations. Prerequisites: PHYS 212; or PHYS 202 and MATH 232.

PHYS 502. Methods of Mathematical and Computational Physics II (3) Spring (alternate years). Survey of basic mathematical and computational techniques for solving partial differential equations, including the wave equation, Poisson's equation, and the heat equation. Introduction to Fourier

analysis with applications and the Fast Fourier Transform algorithm and their implementation. A rudimentary treatment of special functions, as they arise in solving physical problems, will be given. Prerequisite: PHYS 501 or consent of instructor.

PHYS 503. Stellar Structure and Evolution (3) Fall (alternate years). Basic data, stellar interiors, theoretical models. Advanced evolutionary states: red giants, white dwarfs, neutron stars, supernovas, black holes. Prerequisites: PHYS 301 or consent of the instructor. Not open to students with credit for ASTR 403.

PHYS 510. Solid State Physics (3) Spring (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 517. Quantum Mechanics (3) Spring. Duality of matter and radiation, state functions and interpretation, Heisenberg uncertainty principle, wave equations and principles of wave mechanics, elementary applications of Schrödinger's equation, operator methods, and approximation techniques. Prerequisite: PHYS 501.

PHYS 518. Electricity and Magnetism I (3) Fall. Electric and magnetic fields; Maxwell's theory of electromagnetic field with applications in propagation, absorption, reflection, transmission of radiation. Prerequisites: PHYS 501.

PHYS 519. Electricity and Magnetism II (3) Spring (alternate years). PHYS 518 continued with applications to guided waves and physical optics. Relativity. Prerequisite: PHYS 518.

PHYS 528. Microcomputer Interfacing (3) Fall. 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 202.

PHYS 529. Selected Topics in Microelectronics (1-3) On demand. An individual, in-depth study of a microelectronics project. Designed to

Physics and Astronomy

integrate the introductory knowledge gained in PHYS 303 and PHYS 528 into a complete microelectronic system. Arranged. Prerequisites: PHYS 528 and PHYS 303.

PHYS 533. Philosophy and Physics of Space and Time (3) Spring. 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 601. Techniques in Experimental Physics (3) Fall. Laboratory-oriented course in which various experimental techniques and current topics in physics and engineering are treated.

PHYS 602. Advanced Classical Mechanics (3) Fall. Lagrangian and Hamiltonian dynamics, central force problems, small oscillations, canonical transformations, nonlinear dynamics and deterministic chaos, logistic maps.

PHYS 603. Advanced Electrodynamics (3) Spring. Elements of electrodynamics including: electrostatics, magnetostatics, electromagnetism, radiating systems, and relativity. Prerequisites: PHYS 501, 502, 518, or equivalent work.

PHYS 604. Statistical Mechanics (3) Fall. Laws of thermodynamics; kinetic theory; Boltzmann transport equation; Liouville's theorem; fundamental postulates of classical and quantum statistical mechanics; microcanonical, canonical, and grand canonical ensembles; applications to gases, liquids, and solids; Ising model; applications of computational methods. Prerequisite: PHYS 602 or consent of instructor.

PHYS 605. Advanced Quantum Mechanics (3) Spring. Foundations of quantum mechanics with applications to current problems in physics. Prerequisites: PHYS 602 or equivalent.

PHYS 606. Techniques of Computational Physics (3) Fall. Fundamentals of the application of computers in physics with emphasis on numerical methods; survey of methods of simulation with in-depth treatment of several computational physics applications; high level programming and other simulation tools in treating complex physical systems.

PHYS 610. Advanced Solid State Physics (3) Summer. Quantum theory of solids, including: treatment of conduction electrons in metals and semiconductors, electron transport properties, band theory, dielectric, magnetic and optical properties of solids, and superconductivity. Second quantization and pseudopotential techniques. Prerequisite: PHYS 510 or consent of instructor.

PHYS 650. Physics for In-Service Teachers (3-5) On demand. Intensive physics course for secondary or middle school teachers of science who wish to enhance their physics background. Special attention is paid to the development of lecture-demonstration and laboratory apparatus and techniques. Subject matter can vary from year to year. May be repeated. Not acceptable for credit towards a graduate degree in physics.

PHYS 681. Seminar in Physics (2) Fall, Spring. Systematic study of selected topics in physics. Oral presentation is emphasized in the research and instructional arenas. May be repeated to eight hours. Graded S/U.

PHYS 682. Special Topics in Physics (3) 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 684. Readings in Physics (1-3). 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 689. Cooperative Education in Physics (1-6) On demand. Work and study in physics in an industrial, commercial, or government laboratory setting in an approved cooperative position. May be repeated to six hours. Graded S/U.

PHYS 691. Directed Research in Physics (1-2) Fall, Spring. Supervised independent research on a 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: PHYS 606. Graded S/U.

PHYS 694/695. Workshop in Physics (1-4) On demand. Topics and issues within the discipline; topics vary from term to term. PHYS 694 for a grade; PHYS 695 graded S/U.

PHYS 699. Thesis Research (1-12). 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. Graded S/U.

PHYS 782. Special Topics in Physics (3) 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 784. Readings in Physics (1-3) Individual registration. Special topics in specific areas of physics suited to needs of individual student. May be repeated to nine hours. Prerequisite: consent of instructor.

PHYS 799. Dissertation Research (1-12). Credit for dissertation research. Student must earn a minimum of 16 hours of credit in this course while working on the doctoral dissertation. A maximum of 30 hours may be counted toward the degree program. Graded S/U.

Political Science

Master of Public

Administration

Master of Arts (Dual Degree)

Marc Simon, Chair
Cynthia Crow, M.P.A. Coordinator
Room: 127 Williams Hall
Phone: 419-372-2921 or
419-372-2923

Graduate Faculty

Professors - Steven Ballard, Ph.D.; D. S. Chauhan, Ph.D.; Steven Ludd, Ph.D.; Francis McKenna, Ph.D.
Associate Professors - Beth Walter Honadle, Ph.D.; Marc Simon, Ph.D.
Assistant Professors - Neal Jesse, Ph.D.; Jeffrey Peake, Ph.D.

The **Department of Political Science** offers programs leading to the degrees of **Master of Public Administration** and the dual **Master of Arts** in Political Science and German. The main goal of the master's program in Public Administration and International Affairs is to provide professional education to students who wish to prepare themselves for administrative careers and leadership positions in government. In accordance with recognized professional standards, the program: (1) prepares students for professional and leadership careers in public service; (2) offers an opportunity to in- and mid- career personnel for additional training and career development; and (3) provides foundations for careers in teaching, consultation, and other professions requiring advanced knowledge of the process, art, and science of public administration.

The dual Master of Arts in Political Science and German Program prepares a limited number of students for careers in some phase of international politics, education, or commerce in which fluency in the German language is essential. For German language requirements consult the graduate coordinator, Department of German, Russian, and East Asian Languages.

Prerequisites to Graduate Work

Applicants must possess a bachelor's degree from an accredited

institution, have at least a 2.8 grade point average for conditional admission, and a 3.0 for regular admission, a 3.25 in the major, and have a major, minor, or satisfactory equivalent in political science or an appropriate field based on the student's area of interest. In cases where an applicant is deficient in background, the appropriate graduate coordinator will recommend additional course work.

Admission Procedure

Applicants seeking admission to graduate programs in political science should follow the instructions in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Public Administration

The M.P.A. program consists of four educational components: (1) core curriculum; (2) area of specialization; (3) program electives; and (4) a thesis or an internship and experiential paper with a written comprehensive examination. Candidates must complete a total of 42 semester hours of graduate credit, which includes 39 hours of course work. The remaining three hours include completing either a written thesis or an internship with an experiential paper and comprehensive exams. Mid- and in-career and international students have the opportunity to substitute course work for the internship component. Mid- and in-career and international students with prior administrative experience may forgo their formal internship and use such experience to draft an experiential paper if they select the comprehensive exam/experiential paper option.

The 21-hour core curriculum requirement is met by completing POLS 621, Administrative Theory and Behavior, and POLS 675, Research Methods. In addition to these two core classes, students are required to choose at least five of the following seven core courses:

- (1) POLS 611. Administrative Law;
- (2) POLS 612. Public Administration Ethics;
- (3) POLS 620. Public Administration and Public Policy;
- (4) POLS 626. Public Personnel Administration;
- (5) POLS 628. Government

Budgeting and Fiscal Policy;

(6) POLS 641. Management in Small Local Government;

(7) POLS 671. Seminar in International Relations; and

In addition, all students must receive at least a "B" grade in all core classes before undertaking a thesis or comprehensive exam.

To develop an area of specialization, students select 12 hours of course work from various departments and colleges of the University under the direction of the graduate coordinator in one of the following ten areas: economic development; environmental management; financial administration; international and comparative administration; non-profit management; organizational development; personnel management and labor relations; public law and criminal justice administration; public policy analysis; and small local government management.

In addition to these program requirements, all graduates must meet the general degree requirements set by the Graduate College.

Master of Arts (Dual Degree)

Students pursuing a dual Masters of Arts in Political Science and German must complete a minimum 54 credit hours (27 in Political Science and 27 in German). For more information on the German component consult the graduate coordinator, Department of German, Russian, and East Asian Languages. The Political Science component consists of 18 hours in the core, six hours of electives and either three hours of thesis or three hours from an internship with an experiential paper and comprehensive exams.

The 18-hour core curriculum requirement is met by completing POLS 651, Seminar in Comparative Government; POLS 671, Seminar in International Relations; and POLS 675, Research Methods. In addition to these three core courses, students are required to choose at least three of the following seven core courses:

- (1) POLS 678. Seminar in Economic Statecraft;
- (2) POLS 680. Seminar in Political Science;
- (3) POLS 521. Bureaucratic Politics;
- (4) POLS 575. International

Political Science

Organization;

(5) POLS 576. Politics of International Economic Relations;

(6) POLS 578. International Conflict;

(7) POLS 579. Conflict Resolution.

In addition, all students must receive a "B" grade in all core classes before undertaking a thesis or comprehensive exam. Four of the core classes must also be at the 600 level. The thesis, experiential paper, and comprehensive exam must be drawn from both Political Science and German.

In addition to these program requirements, all graduates must meet the general degree requirements set by the Graduate College.

Courses for Graduates

POLS 516. Constitutional Law: Powers and Relationships (3) Fall. Supreme Court cases relating to U.S. governmental structure, powers, and relationships.

POLS 517. Constitutional Law: Procedural Rights (3) Fall. Due process, right to counsel, search and seizure, electronic surveillance, jury trial.

POLS 518. Constitutional Law: Substantive Rights (3) Spring. Freedom of speech, press, and religion; equal protection of law, travel, and privacy; right to vote.

POLS 519. Jurisprudence (3) Spring. Leading theories and theorists of law; Anglo-American thought and practice.

POLS 520. Administrative Law (3) Fall. 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 521. Bureaucratic Politics (3) Spring. The role federal bureaucracy plays in public policy process. Policy development; social and political factors that influence the administrative branch of government.

POLS 523. Comparative Public Administration (3) On demand. 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 525. Constitutional Law Advocacy (3) On demand. 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. Prerequisite: POLS 516 and POLS 517, or POLS 519 and consent of instructor.

POLS 531. Regulatory Policy (3) Fall. Development of regulation as instrument for correcting deficiencies of economic market, role in achieving societal purposes, problems of regulatory practice.

POLS 540. Political Parties and Voter Behavior (3) Spring. 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 543. Mass Media in Politics (3) Spring. 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 554. Politics of the Commonwealth of Independent States (3) On demand. Analysis of the institutions, political parties, and economic policies of the former Soviet Republics within the context of ethnic conflict and the transition to democracy and capitalism.

POLS 558. Foreign Policy of the Commonwealth of Independent States (3) On demand. Foreign policies of the states of the former Soviet Union in the post-Cold War era; domestic and international causes and consequences of their relations with the West, Central Europe, and developing countries.

POLS 559. Intergovernmental Relations (3) Fall. Public policy issues and interaction with levels of government in American federal system. Dynamics of intergovernmen-

tal relations, grant-in-aid, revenue sharing, and federal relationships.

POLS 560. Politics and Issues of World Development (3) Spring (alternate years). Political and economic modernization problems; equity versus development; hunger and population, foreign aid, technology transfer, and other selected topics.

POLS 573. International Law (3) On demand. History, nature, sources, and applications; relationship between law and society at international level.

POLS 575. International Organization (3) Spring. History, organization, and function of international organizations within the context of world politics. Major emphasis on United Nations and issues facing it. Prerequisite: POLS 272, 372, or consent of instructor.

POLS 576. Politics of International Economic Relations (3) Fall. This course examines the historical development of the international political/economic system, the relationship between the state and society in economic and social development, and theoretical questions surrounding power and wealth at the international level.

POLS 578. International Conflict (3) Fall (alternate years). Political theories and research on the causes of war, civil war, and other forms of international conflict. Analysis of escalatory processes, ethical and legal issues, and techniques of conflict resolution.

POLS 579. Conflict Resolution (3) Fall (alternate years). Theories and research as the resolution of political conflicts in individual, bureaucratic, societal, and interstate settings. Techniques of conflict resolution including coercion, negotiation, and nonviolence. Application of theories to cases of political conflict.

POLS 580. Topics in Political Science (1-3). Study of a designated topic in political science. Subject matter varies; includes new courses being offered on a one-time experimental basis. May be repeated.

POLS 582. Topics in Public Administration and Political Science (1-3) Fall, Spring, Summer (on demand). Study of selected aspect of the discipline, particular area of

Political Science

concern, or question put forward for consideration.

POLS 586. Workshop in Political Science (1-4) Fall, Spring. Study of a particular topic in an intensive format. Topics vary.

POLS 601. Modern Political Theory (3) On demand. 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 coordinator.

POLS 611. Administrative Law (3) Spring. This course examines selected issues relevant to the study and practice of administrative law. Concepts such as delegation of power, judicial review, administrative discretion, and their impact upon organizational functioning provide the major emphasis for in-class analysis and legal research assignments.

POLS 612. Public Administration Ethics (3) Summer. Seminar involving research and analysis of ethical questions confronted by professionals in public service including selected issues in democratic governance, professional responsibility, and legal liability.

POLS 620. Public Administration and Public Policy (3) Spring. 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 621. Administrative Theory and Behavior (3) Fall, Spring. 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.

POLS 623. Public Policy Analysis/Program Evaluation (3) Summer. The focus is on approaches and methods for producing information about public issues and problems, alternative policies, criteria for selecting policies, and the effects of past policies and programs. Factors related to the use, non-use, and abuse of analysis and evaluations by

policy makers are discussed.

POLS 626. Public Personnel Administration (3) Spring. 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.

POLS 628. Government Budgeting and Fiscal Policy (3) Fall. 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.

POLS 631. American Government (3) Fall. Readings and reports on political behavior, public opinion and mass media, state and local government, legislative process, executive and judicial process.

POLS 632. Seminar in State and Local Government (3) Summer. 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 635. Problems/Issues in Public Administration/Policy (3) On demand. Research seminar dealing with problems/issues in public administration/policy.

POLS 637. Public Sector Labor Relations (3) Spring, 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.

POLS 640. Nonmetropolitan Government and Policy (3) Summer (alternate years). Seminar involving research and analysis of selected topics in rural and small local government and politics including developmental policies, intergovernmental relations, service delivery issues, and political processes.

POLS 641. Management in Small Local Government (3) Fall. Analysis of management functions and practices required to operate a

modern government in a rural area or a small jurisdiction, including financial management, personnel management, public relations, and intergovernmental management.

POLS 644. Environmental Policy (3) Spring. Research and analysis of environmental policy and agency administration topics including federal, state, and local environmental policies, planning, and political processes. Theories of regulatory market and land-based approaches to various environmental quality problems.

POLS 645. Environmental Management (3) Fall. Seminar on environmental management functions of state agencies and local governments, including regulatory programs and land use. Topics include interagency and intergovernmental coordination, public involvement, political and financial support, and evaluation.

POLS 651. Seminar in Comparative Government (3) Spring. Directed research in selected areas of comparative government. Commentary and discussion over general area or areas selected for research.

POLS 654. Foundations of the Nonprofit Sector (3) Fall. Seminar examines the role of the nonprofit sector in American society; the values and ethics that guide it; the legal and tax issues that have an impact on it; the relationship between the nonprofit, public, and for-profit sectors; the nature of the nonprofit sector in the future.

POLS 655. Advanced Studies in Nonprofit Management (3) Summer. Seminar examines issues of relevance to the practice of nonprofit management. Topics vary and may include managing volunteers, strategic planning, management information systems, and fund raising.

POLS 660. Seminar in Local Economic Development (3) Summer. Seminar involving research and analysis of forces influencing local economic development including public policies, local development efforts, and state, national, and international political economy factors.

POLS 661. Intergovernmental Approaches to Economic Development (3) Summer. Survey and

Political Science - Popular Culture

analysis of economic development programs including financial, employment, and training available to local governments and designed to enhance local development efforts.

POLS 671. Seminar in International Relations (3) Spring. Papers, readings, and discussion of selected topics in international relations and foreign policy formation. The major emphasis will be on the state of the discipline and methodological, epistemological, and theoretical controversies in the field.

POLS 675. Research Methods (3) Fall. Research design and sampling, data arrangement and processing, data analysis and hypothesis testing in the fields of political science and public administration. Processing and analysis will utilize personal computers and an IBM mainframe.

POLS 677. Seminar in American Culture Studies (3) Fall, Spring. 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 677 is also listed in this catalog as ACS 677. During a given semester, a student may receive credit for only one of these courses.

POLS 678. Seminar in Economic Statecraft (3) Spring (alternate years). An in-depth study of the theory, strategies, and policies used by government officials to maximize national welfare, enhance security, and bolster international stability within the context of a global political economy.

POLS 680. Seminar in Political Science (1-3) Fall, Spring. In-class study of designated topic in political science. Content of seminar will vary. May be repeated.

POLS 686. Independent Study (1-3) Individual study of selected topics in political science appropriate to the students overall course of study. Instructor's approval required. Proposal must be drafted and approved by graduate coordinator. May

be repeated.

POLS 687. Independent Study (1-3). Individual study of selected topics in political science. Instructor approval required. May be repeated. Graded S/U.

POLS 689. Public Service Internship (3). A supervised public service experience with an analytical internship/experiential paper. All internship proposals must be approved by the program director. Graded S/U.

POLS 694. Workshop in Public Administration (3). 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 699. Thesis Research (3). Credit for thesis study. Thesis proposal must be submitted to graduate coordinator for approval prior to submission to graduate college. Minimum acceptable total for degree is three hours. Graded S/U.

Popular Culture Master of Arts

Marilyn Motz, Chair
Carl Holmberg, Graduate Coordinator
Popular Culture Building
Phone: 419-372-2983

Graduate Faculty

Professors - Christopher D. Geist, Ph.D.; Carl Holmberg, Ph.D.; Jack Santino, Ph.D.

Associate Professors - Marilyn Motz, Ph.D.; Angela Nelson, Ph.D.

Assistant Professors - Joe Austin, Ph.D.; Jeffrey Brown, Ph.D.; Hai Ren, Ph.D.

The **Master of Arts** degree in Popular Culture is interdisciplinary in nature and is promoted through the operational and research programs of the Bowling Green Center for Popular Culture Studies and the **Department of Popular Culture**. For working purposes at the Center and in the Department, "popular culture" is defined as the part of culture which is not narrowly elitist or aimed at special audiences, and which is

generally (but not necessarily) disseminated via the mass media.

The interdisciplinary program is designed to train scholars in the objective analysis of that part of a culture, both past and present, which has a distinctly popular base of appeal. The program draws upon the curricula of programs in American culture studies, art, economics, English, geography, foreign languages, history, music, philosophy, political science, sociology, telecommunication, and women's studies, as well as graduate courses in the Department of Popular Culture.

The Department of Popular Culture has outstanding library and resource support for the graduate program. In 1969, the University established the Popular Culture Library, a non-circulating research library that contains more than 500,000 items from popular novels to television scripts. In addition, the Sound Recordings Archives contains the finest and largest collections of recorded popular music in the United States. Bowling Green State University is the national headquarters for the study of popular culture and the

publication of articles and books on popular culture topics.

Popular culture may also be pursued as a specialization through the American culture studies Ph.D. program.

Prerequisites to Graduate Work

Admission to the M.A. program requires a minimum 3.0 cumulative GPA and 3.0 GPA in a specified discipline in which at least 20 semester hours of work have been completed. Applicants who hold an undergraduate degree in an interdisciplinary program that includes 20 semester hours of work in a single discipline may be admitted upon the recommendation of the graduate committee.

Admission Procedure

Applicants seeking admission to the M.A. program in popular culture should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts

Candidates are required to complete a minimum of 32 semester hours of graduate credit beyond the baccalaureate degree. Students must

Popular Culture

complete the following core requirements: (1) POPC 675, Popular Culture Theory and Methodology; (2) POPC 660, Folklore and Folklife; (3) three graduate seminars in popular culture; and (4) one departmental course in international popular culture.

Candidates are responsible for mastering the content of a core reading list provided to them at the beginning of their academic program. Students are required to complete a general three-question written departmental examination over the core reading list and the required core courses listed above.

The M.A. degree is offered under Plan I-thesis option or Plan II-non-thesis option. The research track outlined below is only offered under Plan I-thesis option.

Plan I: Up to six semester hours of thesis research credit can be applied toward the degree.

Plan II: In addition to the written examination described above, each candidate must pass a two-hour oral examination over an area of specialization.

Candidates are to create their own advisory committees, in close consultation with the graduate coordinator, composed of at least one member from outside the Department of Popular Culture and no more than two members from within the Department. In the case of the Plan I-thesis candidates, the committee advises the thesis. In the case of the Plan II-non-thesis candidates, the committee exists to advise, prepare, and evaluate the oral examination over the candidate's area of specialization. Students are expected to have created their committee by no later than the end of the second semester in residence in the program.

Courses for Graduates

POPC 586. Workshop in Popular Culture (1-4). Study of a particular topic in an intensive format. Topics vary.

POPC 660. Folklore and Folklife (3) Spring. Examines expressive culture shared within groups and transmitted person-to-person. Includes traditional and contemporary folklore such as legends, folktales, foodways, folk medicine, and folk art. Emphasis on theory,

methodology, and history of discipline. Prerequisite: Popular Culture M.A. students or consent of instructor.

POPC 662. Topics in Popular Film (3) Spring. Intensive study of a specific genre, period, or theme in Hollywood film. Emphasis on movies as cultural artifacts. May be repeated if the topic is different.

POPC 664. Topics in Popular Literature (3) Spring. Intensive study of a popular genre, author, or theme in popular literature. Emphasis on popular literature as cultural product. Both historical background and close reading of specific texts will be employed. May be repeated if the topic is different.

POPC 666. Television as Popular Culture (3) Fall. Intense examination of television's role in American popular culture. Industry structure, ratings and their meanings, creation of programming, and advertising strategies; current theoretical approaches to the study of television, etc. Also includes detailed analysis of selected programs and series.

POPC 668. Popular Entertainments (3) Fall. A study of a variety of popular entertainment forms from the 19th century to the present. Topics include: the circus and carnival, vaudeville, community celebrations, fairs, festivals, pageants, participatory as well as spectator sports, outdoor recreation, and other live entertainment forms.

POPC 669. Music as Popular Culture (3) Spring. Selected genres, periods, or themes in popular music. Emphasis is on the social and cultural contexts in which popular music is created, performed and experienced. May be repeated if the topic is different. Prerequisite: Popular Culture M.A. students or consent of instructor.

POPC 670. Teaching Popular Culture (3) Fall. Formal preparation for teaching introductory popular culture courses. Intended for graduate assistants. Students will assist in the teaching of a large section of a 100-level popular culture course, prepare individual lesson plans and course syllabi, and discuss teaching strategies and problems. Required of all teaching assistants in the first semester. Graded S/U.

POPC 671. Directed Teaching of Popular Culture (1-3) On demand. Students teaching 100- and 200-level popular culture courses are assigned to experienced popular culture instructors on a tutorial basis. Includes close supervision of assignments, testing, grading and classroom methods. Prerequisite: consent of graduate advisor of program or representative. May be repeated. Not counted in required number of graduate courses. Graded S/U.

POPC 675. Popular Culture Theory and Methodology (6) Fall. Required of all students in program. Content, theoretical developments, and perspectives of popular culture studies. Includes study and application of theories relating to analysis of popular culture; methodologies and research techniques.

POPC 680. Seminar in Popular Culture (3). 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," "Religion in America," and "Women's Popular Culture."

POPC 682. Topics in Popular Culture (3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

POPC 685. Special Studies in Popular Culture (1-3) On demand. Individual reading on topic in popular culture studies not ordinarily offered in curriculum. Prerequisite: consent of graduate coordinator of program or representative. Graded S/U.

POPC 687. Independent Study in Popular Culture (1-3). Supervised independent completion of a project other than readings. Graded S/U.

POPC 689. Internship (1-8) On demand. Supervised experience in setting related to one's area of specialization. Proposed field placement registration must be approved by the graduate coordinator and site supervisor prior to registration. May be repeated to eight hours. Graded S/U.

POPC 691. Directed Research in Popular Culture (1-3). Supervised independent research. Graded S/U.

POPC 693. Research Group in

Popular Culture - Psychology

Popular Culture (1-3). A group research project accomplished in the laboratory of or under the auspices of a designated instructor. Graded S/U.

POPC 694. Workshop in Popular Culture (1-3) 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 coordinator.

POPC 697. Supervised Practicum in Popular Culture (1-3). Supervised practical field application or clinical experience offered on an individualized basis. Graded S/U.

POPC 699. Thesis Research (1-12). Credit for thesis study. Enrollment in excess of six hours is acceptable for Plan I master's degree, but not more than six hours creditable toward degree. Minimum acceptable total for degree is three hours. Graded S/U.

Psychology Master of Arts Doctor of Philosophy

Dale Klopfer, Chair
Eric F. Dubow, Graduate Coordinator
Room: 206 Psychology Building
Phone: 419-372-2301

Graduate Faculty

Professors - Elizabeth Allgeier, Ph.D.; William Balzer, Ph.D.; Verner Bingman, Ph.D.; Eric Dubow, Ph.D.; Milton Hakel, Ph.D.; Stuart Keeley, Ph.D.; Lee Meserve, Ph.D. (Biological Sciences); Chris Mruk, Ph.D.; Kenneth Pargament, Ph.D.; Harold Rosenberg, Ph.D.; Kenneth Shemberg, Ph.D.; Carlla Smith, Ph.D.; John Tisak, Ph.D.; Marie Tisak, Ph.D.; Ryan Tweney, Ph.D.; David Weis, Ph.D. (Family and Consumer Sciences)

Associate Professors - Richard Anderson, Ph.D.; Scott Highhouse, Ph.D.; Dale Klopfer, Ph.D.; Annette Mahoney, Ph.D.; Paul Moore, Ph.D. (Biological Sciences); William O'Brien, Ph.D.; Kevin Pang, Ph.D.; Steven Rogelberg, Ph.D.; Catherine Stein, Ph.D.

Assistant Professors - Robert Carels, Ph.D.; Yiwei Chen, Ph.D.; Michael Geusz, Ph.D. (Biological Sciences); Mary Hare, Ph.D.; Robert Huber, Ph.D. (Biological Sciences); John McAuley, Ph.D.; Dara Musher-Eizenman, Ph.D.; Jeffrey Stanton, Ph.D.; Daniel Wiegmann, Ph.D. (Biological Sciences); Michael Zickar, Ph.D.

The **Department of Psychology** offers programs leading to the degrees of **Master of Arts** and **Doctor of Philosophy**. Graduate programs in psychology are research oriented, regardless of the special areas of interest the student may have. Five

areas of emphasis are available: clinical; industrial-organizational; developmental; quantitative; and experimental psychology such as animal behavior, behavior genetics, behavioral neuroscience, cognitive psychology, complex processes, learning, measurement, and perception.

Students are encouraged to become engaged in laboratory, library, and field research either independently or in collaboration with members of the faculty. Practice in research, in addition to the required dissertation research, is an integral part of graduate training. The departmental laboratories are well equipped for the investigation of a wide variety of problems in all areas of contemporary psychology.

Students admitted to graduate study in psychology are required to work toward the Ph.D. degree. The M.A. is granted as part of the total program.

Prerequisites to Graduate Work

Applicants should have completed approximately 20 semester hours or 30 quarter hours of undergraduate psychology courses including experimental psychology and statistics. Credit in a related field or pertinent experience may count toward this minimum if approved by the department.

Admission Procedure

Applicants seeking admission to the graduate programs in psychology should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants should also contact the Department of Psychology for application materials.

Degree Requirements

Master of Arts

Candidates must complete a minimum of 30 semester hours of graduate credit. Students are re-

quired to take (1) PSYC 624 (methodology in psychology) and (2) PSYC 667 and PSYC 668 (basic statistical theory).

The M.A. degree in psychology is offered under Plan I-thesis option. Candidates must complete a thesis and perform satisfactorily in an oral defense.

Doctor of Philosophy

Students must complete a minimum of 90 semester hours beyond the baccalaureate degree. Those pursuing a clinical emphasis must also have a full year of internship. It is emphasized that hour requirements are secondary in importance to breadth of understanding evidenced by satisfactory performance on examinations and demonstrated competence in research. The dissertation, and preparation for it, are central to the student's plan of study.

Students are admitted to doctoral study only if there is an available sponsor to guide their research activities throughout the program. Students who enter the program with an M.A. degree from another institution should arrange to be sponsored by a member of the graduate faculty by the end of the first semester on campus.

Early in their program, students must present a plan of study. The plan of study must guarantee that the student finishes the program a broadly-trained psychologist, competent to initiate, conduct, and interpret empirical research. Within this framework, however, the provisions for a doctoral plan of study are quite flexible. The individual plan of study is worked out in collaboration with the sponsor.

Students must satisfactorily complete a sequence of core courses (methodology and statistics) during the first two years. In addition,

Psychology

students are required to take and successfully master content core courses as well as general courses covering the major fields of psychological study. A completed master's-level research project should be presented to the student's committee by the end of the second year of study.

Students must take a preliminary examination after they have completed approximately 60 semester hours of approved graduate credit. The examination may be either in the form of a research project presented to the committee or may be a written and oral examination dealing with the area of emphasis. A student's doctoral committee determines the exact nature of this examination.

Candidates for the Ph.D. degree must complete a dissertation and pass an oral examination over the dissertation.

Courses for Graduates

PSYC 560. Introduction to Psychological Testing (3) Fall, Spring. Theory and methods of measuring human behavior. Basic measurement principles and applications; representative standardized tests of intelligence, interest, aptitude, and personality. Prerequisite: PSYC 201 and PSYC 270, or equivalent.

PSYC 586. Workshop in Topics of Psychology (1-5). Study of a particular topic in an intensive format. Topics vary.

PSYC 608. Behavior Pathology (3) Spring. Evaluation of various theories of psychopathology, as well as a discussion of several pathological syndromes and illustrative interviews.

PSYC 609. Clinical Interviews and Issues (3). Introduction to basic clinical interviewing, ethical principles, diagnostic classification, record keeping, and special topics. Prerequisite: consent of instructor. Graded S/U.

PSYC 610. Basic Clinical Skills (4). Seminar on applications of basic clinical skills, including interviewing, psychometrics, case conceptualization, clinical judgment, report writing, feedback consultation, and treatment. May be repeated. Prerequisite: PSYC 609 and PSYC 664, or consent of instructor. Graded

S/U.

PSYC 624. Methodology in Psychology I (3) Fall. Focuses on the nature of scientific activity. Includes theory construction, hypothesis construction, hypothesis testing, prediction, explanation, and methodological and statistical issues that affect the evaluation of data.

PSYC 625. Methodology in Psychology II (2) Spring. Research leading to measurement and prediction of behavioral attitudes. Different models for prediction.

PSYC 628. Clinical Research Methods (3). This course provides advanced training in empirically-based clinical research methods including: single-subject designs, group-based designs, and meta-analysis.

PSYC 631. Theory and Techniques of Therapy (4). The first basic level part of the therapy sequence. Focuses on models of short-term psychological interventions/treatments and their efficacy. Prerequisite: PSYC 608 or consent of instructor.

PSYC 632. Theories and Techniques of Therapy II (3). This course is a continuation of PSYC 631. The topics will include: behavioral and operant techniques and applications; psychotherapy process and outcome research; and ethical, public policy, and practical issues in psychotherapy. Prerequisite: PSYC 631 or consent of instructor.

PSYC 650. Contemporary Research Issues in the World of Work (3). Introduction to the research literature associated with the world of work. Methodological as well as conceptual issues associated with organizational as well as work effectiveness will be reviewed and critiqued.

PSYC 664. Foundations of Clinical Psychological Assessment (4). Basic psychometric and test construction issues; administration, scoring, and interpretation of representative intellectual tests; survey of well-established paper-pencil tests in clinical psychology; principles associated with reliability, validity, and decision theory in psychological assessment.

PSYC 665. Psychological Assessment II (3) Fall. Assessment of brain damage; experience with

standard neuropsychological devices. Use of structured personality tests. Prerequisite: PSYC 664.

PSYC 666. Psychological Assessment III (2) Spring. Clinical judgment. Reliability, validity, and utility of assessment devices. Prerequisite: PSYC 665.

PSYC 667. Statistical Theory I (4) Fall. General overview of basic statistical concepts followed by a special emphasis upon the multiple regression model. Topics will 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 668. Statistical Theory II (4) Spring. Experimental design, data analysis, hypothesis testing, and parameter estimation for simple through complex research plans.

PSYC 685. Directed Readings (1-12). Supervised independent readings in a focused area of study. Graded S/U.

PSYC 687. Independent Study (1-12). Reading or empirical research on topic or problem approved by supervising instructor. May be repeated. Graded S/U.

PSYC 688. Field Study: Deafness and ASL (1) Fall. Orientation to deafness and on-site observation of educational approaches and communication methods used at elementary, secondary, and postsecondary levels by programs for deaf children. Conducted at Gallaudet College, Washington, D.C., between semesters. Prerequisites: manual communication skills and consent of instructor. Graded S/U.

PSYC 689. Internship (1-12). Supervised practical field application or clinical experience offered on an individual basis. Graded S/U. PSYC 691. Directed Research (1-12). Supervised independent research. Graded S/U.

PSYC 699. Thesis Research (1-12). 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. Graded S/U.

Psychology

PSYC 701. History of Psychology I (3) Fall. 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 702. History of Psychology II (3) Spring. Emergence of modern applications of scientific psychology in industrial, clinical, developmental, and educational contexts. Emphasis on reading and interpreting primary sources.

PSYC 704. Child Development (3) Spring. Major concepts and principles of child development. Discussion focuses on how cognitive, personality, and social-psychological issues interact to produce development.

PSYC 705. Personality Theory (3) Fall, Spring. Nature of personality; biological and psychological determinants. Major constructs; primary determinants of personality development.

PSYC 708. Behavior Pathology in Children (3). The course focuses on the major behavior and psychological disorders of children and relevant research. Prerequisite: PSYC 608 or consent of instructor.

PSYC 709. Advanced Clinical Research and Practice (4). Integration of current research and clinical practice in specific assessment, interventions, or clinical populations. May be repeated. Prerequisite: PSYC 610 or consent of instructor. Graded S/U.

PSYC 710. Basic Neuroscience and Cognition (3). A survey of the anatomical and physiological properties of nervous system function, how these elements contribute to sensory processing and motor control, and finally an in-depth analysis of how nervous system organization relates to cognitive functions such as learning, memory, and language.

PSYC 712. Cognitive Psychology (3) Fall, Spring. 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 714. Psychobiology (3)

Fall, Spring. Contemporary research dealing with neural control of behavior.

PSYC 716. Human Judgment (3) Fall, Spring. 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 717. Sensation and Perception (3) Spring. 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 733. Application of Theory and Techniques of Therapy (1-4). Supervised practicum experience with various psychotherapeutic modalities. Prerequisite: PSYC 631 or consent of instructor. Graded S/U. May be repeated.

PSYC 734. Cognitive Development (3) Fall. Major theories of cognitive development across the lifespan; integration of theory with relevant research is emphasized.

PSYC 735. Social and Personality Development (3) Spring. Major theories of social and personality development across the lifespan; integration of theory with relevant research is emphasized.

PSYC 736. Psychology of Adult Development and Aging (3) Fall. Focus on major theories and research on adult development and aging. Provides a thorough background in cognitive, social, and personality development in adulthood. Prerequisite: GERO 601 or consent of instructor.

PSYC 737. Mental Health and Aging (3) Fall. Focuses on mental disorders, assessment, and therapeutic approaches that pertain to older adults. Emphasizes special issues in dealing with older adult clients. Prerequisite: GERO 601 and PSYC 736 or consent of instructor.

PSYC 742. Theories of Social Psychology I (3) Fall. Major theoretical approaches: S-R, cognitive,

mathematical, biological theories. Prerequisite: PSYC 625 and PSYC 668.

PSYC 743. Theories of Social Psychology II (3) Spring. Contemporary minitheories; includes theories of attraction, attribution, social facilitation, and aggression. Prerequisite: PSYC 625 and PSYC 668. May be taken prior to PSYC 742.

PSYC 754. Criterion Theory and Development (3) Fall, Spring. Theory, research, and practice issues related to the identification, development, and evaluation of criteria to assess individual, group, and organizational performance.

PSYC 756. Organizational Staffing (3) Spring. 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. Prerequisite: PSYC 667 and 625.

PSYC 758. Motivation and Morale (3) Spring. Research and theory on attitudes, motivation, and intentional behavior related to satisfaction, motivation, effort, and goal setting at work.

PSYC 759. The Social Environment of Work (3) Fall. Theory and research on the impact of multiple social environments (groups, organization design, external environments) on organizational behavior and job performance.

PSYC 760. Practicum in Industrial Organizational Psychology (3). Supervised practicum experience with applied projects in I-O Psychology. Projects will vary on a semester basis. Topics relevant to applied projects such as proposal writing and presentation skills will also be covered. Prerequisite: one year of graduate study in I-O or consent of instructor. May be repeated.

PSYC 761. Psychological Measurement I (4). Theories and applications of advanced psychometrics. An in-depth study of the classical psychological measurement model via a statistical framework. Topics include: linear composites, reliability, validity, and statistical estimation and testing. Prerequisites: PSYC 667 and 668, the equivalent, or consent of instructor.

PSYC 762. Psychological Measurement II (4). Theories and applications of advanced psychometrics. Recent developments in psychological measurement models. Topics include: item response theory (IRT) and strong true score theory. Prerequisites: PSYC 761 or consent of instructor.

PSYC 765. Developmental Models I: Theory (4). Quantitative models for the study of developmental or longitudinal phenomena. The study of the methodology which is applicable to time-order psychological data, i.e., repeated measures on individuals. Topics include: growth curves, longitudinal trajectories, latent curve analysis, and statistical estimation and testing for these models. Prerequisite: PSYC 667 and PSYC 668, the equivalent, or consent of instructor.

PSYC 766. Developmental Models II: Applications (4). Applications of quantitative models for the study of developmental or longitudinal phenomena. This course will apply longitudinal methodology to substantive areas in psychology, such as, biological, clinical, cognitive, developmental, industrial-organiza-

tion, personality, and social. Prerequisite: PSYC 765, the equivalent, or consent of instructor.

PSYC 768. Scaling (3) Fall, Spring. Theory and methods of unidimensional and multidimensional scaling. Topics include measurement problems, procedures for developing scales, and interpretation of scales.

PSYC 769. Advanced Quantitative Methods (1-4). Recent or advanced topics in Quantitative Psychology. Possible topics include: structural equations modeling, latent trait theory, stochastic models in learning and perception, decision processes, adaptive testing, and the like. May be repeated. Prerequisite: PSYC 667, 668, the equivalent, or consent of instructor.

PSYC 780. Graduate Seminar (1-5). Selected topics in all areas of psychology. Prerequisite: consent of instructor.

PSYC 781. General Seminar (1-5). Current literature, theoretical issues, advanced techniques in all areas of psychology. May be repeated. Graded S/U.

PSYC 785. Directed Readings (1-12). Supervised independent readings in a focused area of study.

Graded S/U.

PSYC 787. Independent Study (1-12). Supervised independent completion of a project other than readings. Graded S/U.

PSYC 789. Internship (1-12). Supervised practical field application or clinical experience offered on an individual basis. Graded S/U. PSYC 791. Directed Research (1-12). Supervised independent research. Graded S/U.

PSYC 793. Research Problems (1-5). Supervised research seminar in general area. May be repeated. Graded S/U.

PSYC 797. Supervised Practicum in Clinical Psychology (4). Supervised practical field application or clinical experience offered on an individualized basis. Graded S/U.

PSYC 798. Readings for Preliminary Examination (1-12). Supervised independent readings in preparation for the doctoral preliminary examination. Graded S/U.

PSYC 799. Dissertation Research (1-16). Student must register for minimum of 16 hours in 799 while working on doctoral dissertation; may be repeated to 30 hours in degree program.

Public Health

Master of Public Health

L. Fleming Fallon, Jr., Director of the MPH program and the Public Health Administration major
Room: 234 Student Health Services Building
Phone: 419-372-8316
E-mail: ffallon@bgsu.edu

Graduate Faculty

Professors - Paul Haas, Ph.D. (Economics); Nancy Kubasek, J.D. (Legal Studies and International Business); Gary Silverman, D.Env. (Environmental Health)

Associate Professors - L. Fleming Fallon, Jr., M.D., Ph.D., Dr.PH. (Public Health); William Redmond, Ph.D. (Marketing)

Consortial Faculty

Medical College of Ohio

Professors - Farhang Akbar, Ph.D. (Public Health); Michael Bisesi, Ph.D.

(Public Health), Brian Harrington, Ph.D. (Public Health)

Associate Professor - Robert Forney, Ph.D. (Pathology and Public Health)

Assistant Professor - Sadik Khuder, Ph.D. (Medicine and Public Health)

University of Toledo

Professor - James Price, Ph.D. (Public Health and Rehabilitative Services)

Associate Professor - Stephen Roberts, Ph.D. (Public Health and Rehabilitative Services)

Assistant Professor - Deborah Boardley, Ph.D. (Public Health and Rehabilitative Services)

The **Master of Public Health** degree program provides advanced study beyond the bachelor degree for persons wishing to update professional skills and obtain new competencies in the area of public health. The program prepares students to enhance public health in the commu-

nity and to become advocates for needed change. The graduates will be prepared to assess factors affecting health, critique and apply research findings, and, in turn, develop strategies and implement various measures for health promotion and disease prevention. The program is composed of a consortium that includes BGSU, the Medical College of Ohio (MCO), and The University of Toledo (UT). The MPH degree is awarded jointly by the three consortial institutions. MPH students have library, computer, parking, and other privileges at all three institutions.

Students gain specialized training in one of the following three majors:

(1) Environmental and Occupational Health: Graduates of this major are prepared to address environmental and occupational health issues for industries, agencies, and organizations from scientific, technical, and administrative perspectives.

(2) Health Promotion and Educa-

Public Health

tion: Graduates are prepared to assist communities, organizations, and individuals in working towards a healthier society by using appropriate educational, behavioral, and social change strategies.

(3) **Public Health Administration:** Graduates are prepared to assume administrative roles in government and community agencies, health care facilities, and private industry.

Prerequisites to Graduate Work

It is expected that all applicants will have successfully completed college-level courses in mathematics, biology, and the social sciences. Completion of college-level courses in chemistry and microbiology is required for admission to the Occupational and Environmental Health major and recommended, but not required, for the other majors.

Admission Procedure

Applicants for regular admission must hold an earned baccalaureate degree from an accredited college or university; have a minimum GPA of 3.0 on a 4.0 scale (or equivalent); and submit three letters of recommendation (at least two must be from individuals holding a graduate degree) and the GRE test scores.

Applicants not meeting these criteria may be eligible for conditional admission. International applicants must submit TOEFL scores.

Degree Requirements

Master of Public Health

Students complete six core courses (18 credit hours): two courses at each of the three institutions; four major courses (12 credit hours) at one of the three institutions; three elective courses (nine credit hours) at a minimum of two institutions; and a capstone experience consisting of an internship or scholarly project (three credit hours) and an integrative seminar (three credit hours).

Core Courses: HEAL 6600 and HEAL 6640, PUBH 600, PUBH 601, PUBH 604, PUBH 605.

Major Courses - Public Health Administration: PUBH 525, PUBH 621, PUBH 622, and PUBH 635.

Major Courses - Environmental and Occupational Health: PUBH 501, PUBH 515, PUBH 550, PUBH 603, PUBH 606, and PATH 620. (Students select four from this list with approval from the major director.)

Major Courses - Health Promotion and Education: HEAL 6200, HEAL 6300, HEAL 6460, RESM 6360.

Capstone Courses: PUBH 692, PUBH 698.

Courses for Graduates

HEAL 6200 (UT). Methods and Materials in Public Health (4).

Introduces students to resource materials and methods appropriate for public health education. Students will use various mediums of instruction in direct application to public health program.

HEAL 6300 (UT). Community Health Organization (3). Focuses on techniques to bring about change in a community's health status through assessment, public advocacy, coalition building, decision-making, planning, policy development, and political influence. Applications will be emphasized.

HEAL 6460 (UT). Health Promotion Programs (3). An examination of current issues and research associated with health promotion in the workplace. This course will focus on the implementation and valuation of health promotion programs appropriate to the workplace.

HEAL 6600 (UT). Health Behavior (3). Examines the role of behaviors on health status and how to influence and understand behavior through use of cognitive models and change theory. Applications through projects are emphasized. Prerequisite: PUBH 600.

HEAL 6640 (UT). Issues in Public Health (3). Examination of various contemporary issues in public health. Included are social, economic, political, and community problems in the provision of health services, health manpower, and payment for health care.

HEAL 6920 (UT). Master's Research Project in Health Education (1-4). Open to graduate students who elect the completion of a master's project in fulfilling the research elective of the master's program. Students may register for the credits in more than one semester.

HEAL 6930 (UT). Interdisciplinary Seminar in Health Education (1-3). A seminar to consider problems and provide advanced study in several fields of education and other

disciplines related to health education. Open only to advanced graduate students.

HEAL 6940 (UT). Public Health Internship (1-4). A field internship designed to supplement classroom experience by providing direct insight into the operation of a public health agency through participant-observer experience.

HEAL 6990 (UT). Independent Study in Health Education (1-3).

The student will participate in independent readings, laboratory research, field experience, and other activities not suited for class instruction. May be repeated for course credit.

PATH 620 (MCO). Principles of Toxicology (3). An introduction to toxicology including the classification of poisons, types of exposures, evaluation of drug and chemical toxicities, and the absorption, distribution, biotransformation, and elimination of toxic substances. The effects of various agents on the response of the liver, kidney, brain, and respiratory system will be discussed.

PUBH 501 (MCO). Principles of Occupational Health (3). The basic and applied concepts of anticipation, recognition, evaluation, and control of physical, chemical, biological, psychological, and mechanical hazards present in or generated from occupational environments are presented.

PUBH 515 (MCO). Principles of Environmental Health (3). Lectures and laboratory demonstrations focus on the qualitative and quantitative aspect of environmental health. Environmental pollution related to air, soil, and water and also foodborne, waterborne, and major communicable diseases will be discussed. Prerequisite: PUBH 605.

PUBH 521 (BGSU). International Public Health (3) Fall. Examines significant health problems affecting populations in various parts of the world, focuses on the integration of disease patterns with geographic areas and cultural practices, and discusses contemporary issues in international health.

PUBH 522 (BGSU). Applied International Public Health (3) Summer. Examines health delivery methods and systems in various

Public Health

parts of the world, focusing on the application of material from PUBH 521 with geographical areas and cultural practices; discusses contemporary issues in international health particular to the country being visited, and works on a project to improve the health delivery capability in the region being visited. May be repeated to six hours. Extra fees assessed for costs related to travel. Prerequisite: PUBH 521 or consent of instructor.

PUBH 525 (BGSU). Public Health Economics (3) Spring. Focuses on the role of economics of health care, and more specifically, public health. Students will explore basic micro economics applied to health care and how health care economics might differ from economics of the firm, examine trade-offs between approaches to health care, and examine economic policy relative to public health.

PUBH 550 (MCO). Public Health Microbiology (3). This course is designed so that students can achieve a broad knowledge and understanding of microorganisms, especially those involved in human disease; understand the body's defenses and an organism's capabilities for spread and virulence; know important sources of infection and modes of transmission for such sources; and know methods of detecting, preventing, and controlling infections.

PUBH 600 (MCO). Public Health Statistics (3). An introduction to descriptive statistics including measurement of central tendency, dispersion, relative position, correlation, and regression. Inferential statistical theory, selected nonparametric methods, and application of computers and also exposure assessment will be discussed.

PUBH 601 (MCO). Public Health Epidemiology (3). The course will present principles of the epidemiology method including problem solving. Various study designs will be discussed, including prospective and retrospective studies, analytic and experimental methods. Prerequisite: PUBH 600.

PUBH 603 (MCO). Advanced Public Health Epidemiology (3). The course covers principles and methods of epidemiology in depth. The topics

include causal inference, risk and effect, confounding, interaction, randomization, and matching. Special emphasis is given to design and interpretation of epidemiological studies. Prerequisite: PUBH 601.

PUBH 604 (BGSU). Public Health Administration (3). This course provides a basic understanding of the nature of public health administration focusing on fundamentals, the recent changes, associated administrative and organizational arrangements that have been developed, and the roles and responsibilities of public health administrators.

PUBH 606 (MCO). Advanced Statistics (3). Advanced statistical techniques with particular emphasis on problems in public health, multiple regression, methods of analysis of variance, categorical data analysis including logistic regression, non-parametric and survival analysis. Problems whose solution involves using a statistical program (e.g., SPSS). Prerequisite: PUBH 600.

PUBH 620 (MCO). Principles of Toxicology (3). An introduction to toxicology including the classification of poisons, types of exposures, evaluation of drug and chemical toxicities, and the absorption, distribution, biotransformation, and elimination of toxic substances. The effects of various agents on the response of the liver, kidney, brain, and respiratory system will be discussed.

PUBH 621 (BGSU). Public Health Management (3) Spring. Students develop a deeper understanding of the principles of management and their application in directing a public health agency. While the primary focus is on human resource management, strategic management, strategic planning, organizational positioning, and related topics are also discussed. Prerequisite: PUBH 604.

PUBH 622 (BGSU). Budget and Administration in Public Health (3). An examination of the basic components of budgeting and fiscal management as applied to public health organizations. Prerequisite: PUBH 604.

PUBH 635 (BGSU). Public Health Law (3) Summer. Develop-

ment of knowledge necessary for functioning as health care professional. Includes an introduction to our legal system in contexts that are important for public health, as well as detailed analysis of the law related to issues of primary concern to public health professionals.

PUBH 673 (MCO). Independent Research in Environmental Health (1-4) Students will participate in selected ongoing research programs with members of the faculty.

PUBH 680 (BGSU). Seminar in Public Health (1-4) On demand. Systematic study of selected topics in public health.

PUBH 681 (BGSU). Independent Study in Public Health (1-4) On demand. Supervised independent completion of an individual or group project or activity, or readings, on a specialized topic in public health.

PUBH 682 (BGSU). Research in Public Health (3) On demand. Supervised research of selected topics in public health. Proposal for research topic must be approved by instructor prior to registration.

PUBH 683 (BGSU). Internship in Public Health (3) On demand. Supervised internship experience in public health.

PUBH 684 (BGSU). Practicum or Project in Public Health (3) On demand. Supervised practicum or project experience in public health.

PUBH 685 (BGSU). Integrative Seminar in Public Health (3) Fall, Spring. Systematic study of chosen topics in public health. Graded S/U.

PUBH 689 (MCO). Independent Study in Environmental Health (1-4). The student and instructor will agree on a program of study that will enable the student to achieve specific learning objectives.

PUBH 696 (MCO). Internship in Public Health (1-3). Comprehensive or focused practical training in environmental and occupational health at a designated agency, organization, or company.

PUBH 697 (MCO). Project in Public Health (1-3). Independent development by a student with approval of and guidance by a major advisor, of a paper, manual, software, etc., applicable to a specific area of environmental and occupational health.

Public Health - Rehabilitation Counseling

PUBH 698 (MCO). Seminar in Public Health (3). Classroom presentations and discussion of relevant public health issues and related experiences.

RESM 6360 (UT). Evaluation Models (3). An overview of prominent human services program evaluation methods including objectives-based, experimental, statistical, and eco-

nomics approaches. Evaluation criteria, issues, ethics, and politics are considered.

Rehabilitation Counseling

Master of Rehabilitation Counseling

Jay Stewart, Director
Room: 427 Education Building
Phone: 419-372-7293

The two-year **Master of Rehabilitation Counseling** program, offered by the **Division of Intervention Services**, is designed to train professional rehabilitation counselors to work in a variety of settings and fields including state, federal, and private rehabilitation agencies and other agencies providing services in the areas of mental retardation, developmental disabilities, mental health, substance abuse, and physical disabilities. The program consists of University classroom, practicum, field, and internship experiences. The program meets the educational requirements for state counselor licensure and all requirements for the CRC. The program covers counseling, case management, and vocational rehabilitation.

Prerequisites to Graduate Work

Prerequisites include a baccalaureate degree from an accredited institution. Applicants must meet personal qualifications, including work history, potential for working with individuals with disabilities, and career goals, as determined through an interview with the program director.

Admission Procedure

Applicants seeking admission to the Master of Rehabilitation Counseling program should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Rehabilitation Counseling

Practicum and intern experiences are integral to the program and provide counseling experience with

individuals who have disabling conditions in a setting selected by student and advisor.

Each student's course of study must include completion of (1) a minimum of 48 semester hours of graduate credit, with 40 hours in the rehabilitation counseling major and (2) one of the two following options:

Plan I: Students must complete a thesis and pass an oral defense of their thesis.

Plan II: Students must pass a final written comprehensive examination covering studies included in the degree plan.

Courses for Graduates

REHB 585. Job Coaching (3). Comprehensive review of job coaching and related services for individuals with disabilities. Identification of roles, functions, and responsibilities of referral sources, job coaching practitioners, employers, and clients. Practical applications and theoretical concepts will be addressed.

REHB 586/587. Workshop in Rehabilitation Counseling (1). Study of a particular topic in an intensive format. Topics vary. REHB 586 for a grade; REHB 587 graded S/U.

REHB 656. Principles of Rehabilitation Counseling (3). History, philosophy, principles, objectives, development of vocational rehabilitation counseling as social structure and profession. The student becomes aware of the various career ladders in the rehabilitation counseling profession.

REHB 657. Counseling in Rehabilitation Process (3). Methods and techniques in assessment and evaluation of vocational handicap; laboratory counseling experience; effective interviewing and recording procedures. The course introduces the student to a variety of treatment modalities.

REHB 658. 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 659. 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. Students are introduced to the variety of vocational choice and development theories and how these can be related to the needs of the disabled.

REHB 660. Work Adjustment and Job Placement (3). Work adjustment counseling and job placement techniques. Special needs of a variety of rehabilitation populations. Prerequisite: REHB 659 or consent of instructor.

REHB 661. Family Intervention in Rehabilitation (3) Family counseling as a mode of intervention in rehabilitation process. Students learn the various treatment models related to family intervention.

REHB 665. 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 667. Community Approaches to Counseling (3) Research and practice of community counseling; consultation, prevention, training of paraprofessional, action research. Prerequisite: consent of instructor.

REHB 675. Seminar in Alcohol and Drug Abuse (3) Fall, Summer. A review and critique of current theory and practice in the treatment of alcohol and drug abuse. The course is designed to meet the needs of primary care counselors and other helping professionals, whose needs may be proper diagnosis and referral.

REHB 676. Services and Ethical Issues in Forensic Rehabilitation (3) On demand. Analysis of the current trends and methodologies

Rehabilitation Counseling

involved in forensic rehabilitation and ethical issues in serving people with disabilities.

REHB 677. DSM Diagnosis and Treatment Implications for Counselors (3). This course provides an understanding of the current "Diagnostic and Statistical Manual of Mental Disorders" (DSM). Students will be able to, under appropriate license and supervision, use the DSM in interviewing, diagnosing, treating, and referring individuals with mental or emotional disorders. Prerequisite: consent of instructor.

REHB 678. Research in Rehabilitation (3) On demand. Analysis of the research methodology relation to rehabilitation. Emphasis is on applied rather than basic research. Prerequisite: EDFI 641 or equivalent.

REHB 679. 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 680. Seminar in Rehabilitation Counseling (3). Selected topics within the discipline. Content varies from one year or semester to next. May be repeated upon approval of graduate coordinator.

REHB 681. Advanced Seminar in Rehabilitation Counseling (1-3). Advanced topics within the discipline. May be repeated upon approval of graduate coordinator. Prerequisite: consent of instructor.

REHB 682. Issues in Rehabilitation Counseling (3). Study of se-

lected aspect of the discipline, particular area of concern, or question put forward for consideration.

REHB 684. Directed Readings in Rehabilitation Issues (3). Supervised independent readings in a focused area of study.

REHB 685. 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 687. Independent Study in Rehabilitation Counseling (3-4). Supervised independent completion of a project other than readings. Graded S/U.

REHB 688. Field Experience (3). Two-to-three-day per week experience in rehabilitation agency under direction of qualified supervisors. Graded S/U.

REHB 689. 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 697. Graded S/U.

REHB 691. 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 semester. Proposal for directed research must be approved by instructor/supervisor prior to registration. Graded S/U.

REHB 693. Pre-Practicum in Rehabilitation Counseling (3). Laboratory setting focusing on

fundamentals of effective interpersonal relationships and the part that self-understanding plays in establishing and maintaining such relationships. Graded S/U.

REHB 694. 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 semester to semester. May be repeated upon approval of graduate coordinator if graduate program department credit desired or at discretion of student for recertification or for personal growth.

REHB 696. 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 697. 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. Graded S/U. Prerequisite: REHB 693 or previous agency experience.

REHB 699. Thesis Research (1-12). 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. Graded S/U.

Romance Languages

Master of Arts

Master of Arts in Teaching

Henry Garrity, Chair
Fabrice Leroy, Graduate Coordinator - French
Francisco Cabanillas, Graduate Coordinator - Spanish

Room: 203 Shatzel Hall
Phone: 419-372-2667

Graduate Faculty

Professor - Henry Garrity, Ph.D.

Associate Professors - R. J. Berg, Ph.D.; Francisco Cabanillas, Ph.D.; Federico Chalupa, Ph.D.; Fabrice Leroy, Ph.D.; Opportune Zongo, Ph.D.

Assistant Professors - Carlo Celli, Ph.D.; Mark Hernandez, Ph.D.; Fenfang Hwu, Ph.D.; Philip Peek, Ph.D.; Nathan Richardson, Ph.D.; Katherine Roberts, Ph.D.

The **Department of Romance Languages** offers programs leading to the degrees of **Master of Arts** and **Master of Arts in Teaching**. Students may pursue graduate studies in

either French or Spanish. Both the French and Spanish programs combine the cultural benefits of study abroad with the guidance and academic support of the graduate faculty on campus. Students have the opportunity to begin their studies with a year abroad in France or Quebec, Spain or Mexico. Students return to the home campus for their second year of study. Those who prefer not to spend a year abroad may take their full course work at the University.

Romance Languages

Prerequisites to Graduate Work

Admission to graduate study in French or Spanish requires an undergraduate major or minor in French or Spanish (not less than 20 semester hours beyond the intermediate level). Applicants with less background may be accepted, provided they are willing to make up prerequisite deficiencies specified by the graduate coordinator.

Admission Procedure

Applicants seeking admission to the graduate programs in Romance Languages should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Degree Requirements

Master of Arts

Candidates pursue graduate studies in French or Spanish under one of the following two plans (students under both plans must also demonstrate proficiency in the language):

Plan I (French and Spanish):

Candidates must complete a minimum of 30 semester hours of graduate credit and the writing of a thesis for which up to six semester hours of credit are granted. Plan I is recommended for individuals who expect to pursue a Ph.D. degree.

Plan II (French): Candidates must complete 36 semester hours of graduate credit. No thesis is required. During the final semester, students prepare for an exit exam that includes an individualized research project and an oral presentation thereof.

Plan II (Spanish): Candidates must complete 36 semester hours of graduate credit. No thesis is required.

The non-thesis student completes a minimum of 36 semester hours of course work, of which at least 51% (19 semester hours) must be taken on the main campus in Bowling Green. This student will also complete a three-part Comprehensive Examination:

(1) For part one of the Comprehensive Examination (Core I), the first-year student selects questions (from the List of Temas available from the Graduate Coordinator) to answer at length dealing with Spanish linguistics, Peninsular literature and civilization, and Spanish American

literature and culture. The student follows the guidelines included with the List of Temas and submits his/her responses so that the Graduate Coordinator has them by February 14 (of the first year).

(2) For part two of the Comprehensive Examination (Core II), the second-year student receives a list of questions related to, but different from, the List of Temas. The student will receive the questions on January 15 (of the second year) and will turn the responses in by January 31. The faculty determine the appropriate questions on an individual basis to supplement those completed by the student during the first year in order to ensure that the student has a well-balance, broad understanding of our discipline.

(3) For part three of the Comprehensive Examination (Specialization):

(a) Peninsular specialists will take a written Special Field Examination no later than the twelfth week of the student's final semester. This examination will take three to four hours to complete and will be constructed by the professor(s) with expertise in the major area selected by the student.

(b) Linguistics specialists will also take a written Special Field Examination no later than the twelfth week of the student's final semester.

(c) Spanish American specialists will write one "polished" paper of no fewer than 20 pages in length, and will present it orally to a committee of a least three members of the Spanish graduate faculty during the student's final semester. After the presentation the student will respond to questions from the faculty. ("Polished" papers are those written originally for a course, which have been read and critiqued by at least one faculty member and which the student has then revised carefully.)

Master of Arts in Teaching

Degree requirements are listed under the heading of Master of Arts in Teaching in the "Degree Programs" section of this catalog. The M.A.T. is open only to applicants who have at least one year's teaching experience and valid certification from the state in which they are teaching or have taught.

Romance Languages Courses for Graduates

ROML 694/695. Workshop on Current Topics in Romance Languages (1-3) On demand. Topics and issues vary. ROML 694 for a grade; ROML 695 graded S/U.

French Courses for Graduates

FREN 530. Topics in French Language Studies (3). Studies in French language, including historical linguistics, syntax, stylistics, and/or translation.

FREN 531. Advanced Composition and Conversation (3). Development of fluency and accuracy in written and oral skills at an advanced level. Usually offered abroad.

FREN 533. Advanced French Diction (2). Continued study of pronunciation, stress, and intonation. Usually offered abroad.

FREN 535. Topics in French Culture and Civilization (3). An exploration of the specificity of French culture and civilization, past and/or contemporary, through the study of selected themes. May include examination of French history, politics, education, art, media, popular culture, etc.

FREN 538. Business French (3). Terminology used in commercial operations, economics, international trade; emphasis on business correspondence; some translation.

FREN 540. Topics in French Literature (3). Study of an author, period, genre, or theme in French literature. Recent topics have included: Renaissance, French comedy, lyricism, surrealism, etc.

FREN 550. Topics in Francophone Literature (3). A thematic study of literary texts from French-speaking authors outside of France, in relation to the socio-cultural specificity of one or several Francophone areas (North Africa, Sub-Saharan Africa, Quebec, Louisiana, the Caribbean, Belgium, Switzerland, etc.). Recent topics have included: African women writers, contemporary Quebec literature, Belgian Francophone literature, etc.

FREN 555. Topics in Francophone Culture and Civilization (3). The study of economic, social, political, historical, and

Romance Languages

aesthetic issues in the civilization and cultural productions of one or several French-speaking areas outside of France. Focus on cultural diversity, nationalism, modernity and post-modernism, colonization and neo-colonization, and related issues.

FREN 565. Topics in French Cinema (3). Examination of selected themes, genres, or periods in French film, including study of film styles, film directors, and film-making from a historical, technical, and/or cultural perspective. Recent topics have included: history of French film, contemporary French film, Hollywood's France.

FREN 567. Topics in Francophone Cinema (3). Examination of selected themes, genres, or periods in Francophone film, including study of film styles, film directors, and film-making from a historical, technical, and/or cultural perspective. Recent topics have included: contemporary Quebec cinema, *De l'Écrite à l'Écran*, etc.

FREN 584. Directed Readings in French Language, Literature, and Culture (1-3). Supervised individual readings to meet student's special needs. Prerequisite: advance approval by departmental graduate committee.

FREN 600. French for Graduate Students (4) On demand. For graduate students in other fields who desire to develop reading knowledge of French. Does not count toward degree. Graded S/U.

FREN 601. Teaching College French (3). Current theories and practices, classroom experience, observation.

FREN 604. French Grammar and Style (3). Literary French: vocabulary, syntax, style. Usually offered abroad.

FREN 605. 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. Usually offered abroad.

FREN 630. Seminar in French Language Studies (3). Advanced studies in French language, including historical, grammatical, stylistic, and linguistic approaches, as well as

translation. Recent topics have included: history of the French language.

FREN 631. Introduction to Textual Analysis (3). Traditional and recent techniques and methods of literary analysis, including *explication de texte*. Elements of versification, rhetoric, and style. Usually offered abroad.

FREN 632. Critical Approaches to Literature (3). Presentation of critical theory and critical approaches to literary analysis, including practical study of literary texts, according to the major concepts of contemporary critical discourse.

FREN 635. Seminar in French Culture and Civilization (3). An in-depth exploration of the specificity of French culture and civilization, past and/or contemporary, through the study of selected themes. May include examination of French history, politics, education, art, media, popular culture, etc.

FREN 640. Seminar in French Literature (3). Advanced study of an author, period, genre, or theme in French literature. Recent topics have included: French autobiography, Renaissance studies, French detective fiction, etc.

FREN 650. Seminar in Francophone Literature (3). Advanced study of literary texts from French-speaking authors outside of France, in relation to the socio-cultural specificity of one or several Francophone areas (North Africa, Sub-Saharan Africa, Quebec, Louisiana, the Caribbean, Belgium, Switzerland, etc.). Recent topics have included: African women writers, contemporary Quebec literature, literature and revolution, etc.

FREN 655. Seminar in Francophone Culture and Civilization (3). Advanced study of economic, social, political, historical, and aesthetic issues in the civilization and cultural productions of one or several French-speaking areas outside of France. Focus on cultural diversity, nationalism, modernity and post-modernism, colonization and neo-colonization, and related issues.

FREN 665. Seminar in French Cinema (3). Advanced study of selected themes, genres, or periods in French film, including study of film

styles, film directors, and film-making from a historical, technical, and/or cultural perspective.

FREN 666. Contemporary French Civilization (3). Modern France and its institutions: history, politics, education, the arts.

FREN 667. Seminar in Francophone Cinema (3). Advance study of selected themes, genres, or periods in Francophone film, including study of film styles, film directors, and film-making from a historical, technical, and/or cultural perspective. Recent topics have included: contemporary Quebec cinema.

FREN 684/685. Directed Readings in French and Francophone Topics (1-3). Supervised individual readings to meet student's special needs. Prerequisite: approval by departmental graduate committee. FREN 684 for a grade; FREN 685 graded S/U.

FREN 690/691. Directed Research in French and Francophone Topics (1-3). Supervised individual research on an approved topic. Prerequisite: advance approval by departmental graduate committee. FREN 690 for a grade; FREN 691 graded S/U.

FREN 694/695. Workshop in French (1-3) On demand. Specially arranged workshop concentrating on a specific topic in French language or civilization. Topics and issues vary; may be repeated. FREN 694 for a grade; FREN 695 graded S/U.

FREN 696/697. Supervised Practicum in French Language and Civilization (3). A supervised experience in language usage or field study of a cultural theme. May be repeated. FREN 696 for a grade; FREN 697 graded S/U.

FREN 698. Readings for Final Project (3). A program of individual readings and research established in consultation with the graduate coordinator. Available in the semester the final project is to take place.

FREN 699. Thesis Research (1-12). 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. Graded S/U.

Romance Languages

Italian Course for Graduates

ITAL 584. Directed Readings in Italian (1-3). Supervised study to meet student's special needs. Prerequisite: consent of department chair and instructor.

Latin Courses for Graduates

LAT 500. Latin for Graduate Students (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.

LAT 584. Graduate Readings in Latin (1-3). Supervised individual work to meet student's special needs. Prerequisite: consent by department chair.

Spanish Courses for Graduates

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 541. 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.

SPAN 550. Advanced Grammar and Composition (3). Grammar and composition, especially appropriate for future teachers of Spanish.

SPAN 563. 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.

SPAN 570. Hispanic Studies (3). Intensive study of a particular topic to increase the student's understanding of Hispanic literature, culture, or language. May be repeated if topics are clearly different. Prerequisite: SPAN 367 or SPAN 368.

SPAN 580. Seminar in Hispanic Subjects (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

SPAN 582. Topics in Hispanic Subjects (3). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

SPAN 601. Teaching College Spanish (1-3). Current theories and

practices, classroom experience, observation. Open to all graduate students. REQUIRED of all teaching assistants.

SPAN 620. Contemporary Spanish Civilization (3). Political, educational, artistic developments that shaped present-day Spain.

SPAN 621. Contemporary Latin American Cultural Discourses (3). Study of socio-political and aesthetic discourses that have shaped the production of art and literature as well as the symbolic production of everyday life in Latin America.

SPAN 622. Issues in Southern Cone Culture Studies (3). Interdisciplinary seminar to explore issues such as gender, the nation, urban spaces and practices, dictatorship, exile, and imprisonment and their relation to cultural production.

SPAN 623. Issues in Andean Culture Studies (3). Interdisciplinary seminar to explore issues, topics, and/or problems and their relationship to cultural production in the Andean region.

SPAN 624. Issues in Caribbean Literature and Culture (3). Seminar to explore the Caribbean identity (primarily Spanish but also English and French) through literary, pictorial, musical, historical, and sociological texts, emphasizing issues such as colonization, race, gender, religion, and social class.

SPAN 625. Issues in USA Latino Literature, Culture, and Language (3). Seminar to explore differences as well as similarities among the USA Latinos through literary, historical, sociological, pictorial, and linguistic texts that emphasize issues such as identity, culture, tradition, language, race, and gender.

SPAN 626. Issues in Contemporary Mexican Literature and Culture (3). Seminar to explore issues such as the construction of national identities, the will to modernity, and the role of race and gender in self-representation in contemporary literary, cinematic, and nonliterary texts.

SPAN 627. Spanish American Cinema (3). Exploration of historical, stylistic, and socio-cultural issues in popular, revolutionary, and art cinemas of various nations.

SPAN 628. Spanish American

Popular Culture (3). Study of radio and television programs, music, comic books, fotonovelas, and other types of popular texts as well as their circulation and consumption.

SPAN 629. Latin American and Caribbean Music, Art, and Literature (3). Interdisciplinary seminar centered on, but not limited to, Afro-Caribbean music, the Mexican muralists, and the avant-garde poetry of the early twentieth century viewed in light of social as well as aesthetic issues.

SPAN 631. Seminar in Spanish American Theater (3). Antecedents and important works of 20th Century.

SPAN 632. Seminar in Spanish American Poetry (3). Spanish American poetic discourse in relation to the social, political, and cultural markers of the time.

SPAN 633. Seminar in Spanish-American Novel (3). Study of outstanding 20th-century novels as reflections of society.

SPAN 634. Seminar in Spanish American Short Story (3). In-depth study of one or several authors of contemporary period.

SPAN 635. History and Identity in Spanish American Literature and Film (3). Study of literature, film, and other texts with an emphasis on how the national or personal past is recovered and brought to bear on contemporary formulations of identity, culture, and nation.

SPAN 636. Spanish American Women Writers (3). Examination of selected works by Spanish American women. Topics of emphasis, time frame, and regional cultures represented (Mexico and Central America, Caribbean, Andean, Southern Cone) may vary.

SPAN 641. 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 642. Cervantes (3). Principal works; emphasis on Don Quixote. Usually offered abroad in Alcalá de Henares.

SPAN 644. Seminar in Golden Age Drama and Poetry (3). Thematic development of Spanish national theatre and poetry from Lope de Vega to Calderón.

SPAN 645. Seminar in Nineteenth-Century Literature (3). Works of principal 19th century writers, including Espronceda, Bécquer, Pérez Galdós, Leopoldo Alas.

SPAN 646. Seminar in Generation of 1898 (3). Literary production of one or several major writers of movement, set against political and cultural background of period.

SPAN 647. Seminar in Contemporary Spanish Poetry (3). Literary production of one or several major poets from the generation of 1927 to the present.

SPAN 650. 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. May be repeated for credit if topics clearly differ. Maximum of nine semester hours.

SPAN 655. Hispanic Linguistics

(3). A diachronic and synchronic study of the structural levels of Spanish: history of the language, phonology, morphology, syntax, semantics, dialectology, and sociolinguistics.

SPAN 656. Research, Writing, and Theory in Hispanophone Studies (3). Resources and research issues. Systematic study of current literary and/or cultural theories relevant to critical writing in Hispanophone studies.

SPAN 680. Seminar in Hispanic Subjects (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

SPAN 682. Topics in Hispanic Literature and Culture (3). Intensive study of particular author, authors, theme or genre, such as drama, essay, poetry, or prose fiction.

SPAN 684. Graduate Readings in Spanish (1-3). Supervised indi-

vidual readings to meet student's special needs. Prerequisite: advanced consent of departmental chair.

SPAN 686. Independent Study in Hispanic Subjects (1-3). Supervised independent completion of a project other than readings. SPAN 690. Directed Research in Hispanic Subjects (1-3). Supervised independent research.

SPAN 690. Directed Research in Hispanic Subjects (1-3). Supervised independent research.

SPAN 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

SPAN 699. Thesis Research (1-12). 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. Graded S/U.

Sociology

Master of Arts

Doctor of Philosophy

Gary R. Lee, Chair
Franklin Goza, Graduate Coordinator
Room: 222 Williams Hall
Phone: 419-372-2294

Graduate Faculty

Professors - Stephen Cernkovich, Ph.D.; Alfred DeMaris, Ph.D.; Peggy Giordano, Ph.D.; Gary Lee, Ph.D.; Donald McQuarie, Ph.D.

Associate Professors - Franklin Goza, Ph.D.; Joseph Jacoby, Ph.D.; Monica Longmore, Ph.D.; Wendy Manning, Ph.D.; K. Vaninadha Rao, Ph.D.

Assistant Professors - Jacob Adetunji, Ph.D.; Susan Brown, Ph.D.; Jeffrey Houser, Ph.D.; Josh Rossol, Ph.D.; Jennifer Van Hook, Ph.D.

The **Department of Sociology** offers programs leading to the degrees of **Master of Arts** and **Doctor of Philosophy**. Students may specialize in: criminology/deviance; population studies/demography; social psychology, and family studies. Although the strength of the department lies within

these specializations, students are encouraged to plan a course of study meeting their own particular interests and career objectives. Additional faculty expertise in the areas of applied demography, criminal justice, sociological theory, and quantitative methods results in considerable flexibility in the design of individualized programs of study.

Regardless of the area of specialization, students in the program build a firm foundation in research methodology, statistics, and theory. The program is designed to prepare students for careers in academic and non-academic settings. For example, master's specializations in applied demography, criminal justice, and family studies are especially designed to prepare individuals for careers in the public sector, private industry, service organizations, and governmental agencies.

The objectives of the Ph.D. program are to provide a broad background in general sociology and to create the capacity for theoretically relevant, rigorous research in at least one area of specialization. Although faculty interests cover a wide range of specialty areas within sociology, doctoral students are encouraged to major in one of the following four

areas: criminology/deviance; population studies/demography; social psychology; or family studies. Faculty will work with students to accommodate various other interests so long as they are consistent with faculty expertise.

Prerequisites to Graduate Work

For admission to the M.A. program, applicants must have a satisfactory academic record and a bachelor's degree from an accredited institution. Applicants must have completed undergraduate courses in sociological theory, methodology, and statistics. In cases where applicants are deficient in sociological background, they may be admitted on a conditional basis providing that the deficiencies are remedied during the course of study. A remedial plan will be developed by the graduate committee for the student's guidance. A placement (diagnostic) test in methods and statistics is given to all entering students for purposes of course advisement.

Applicants to the Ph.D. program should be strongly motivated individuals whose records indicate that they are capable of successfully completing a Ph.D. degree. A master's degree is required for admission to the doctoral program.

Sociology

Admission Procedure

Applicants seeking admission to the graduate programs in sociology should follow the instructions outlined in the "Graduate Admission" section of this catalog.

Of the three letters of recommendation required with the application for admission, at least two of these should be from professors familiar with the applicant's academic work. For doctoral applicants, all letters of recommendation should be from former sociology professors at the graduate level.

The departmental graduate committee also requires that applicants submit an essay describing their area of sociological interest and professional goals. This essay is particularly important because it helps the committee decide if the Department can meet the applicant's career goals.

Degree Requirements

Master of Arts

Candidates are required to complete the following courses: SOC 601, Classical Sociological Theory; SOC 611, Intermediate Methodology; SOC 612, Intermediate Statistics; and SOC 660, Teaching Introductory Sociology. SOC 601 is not required for students specializing in criminal justice and applied demography. These students substitute courses in criminological theory and demographic theory, respectively, for the general theory requirement. Similarly, applied demography majors may substitute specialized courses in demographic methods for SOC 611.

The M.A. degree program offers six general areas of emphasis: criminology/deviance; population studies/demography, social psychology; applied demography; criminal justice; and family studies. Each of the six areas of study have specific course requirements in addition to those noted above. Further information about these requirements is outlined in the specialty area program statements and in the Department's Graduate Student Handbook, all of which may be obtained from the Department of Sociology.

The M.A. degree is offered under two plans.

Plan I: Candidates must complete

a minimum of 30 semester hours of graduate credit and write a formal thesis. The thesis may be a replication of a previous study, a secondary analysis of data from another study, the product of original research based on primary data, or a piece of library research. Students must pass an oral examination on the thesis.

In lieu of a thesis, students in the criminal justice specialization are required to complete an internship (SOC 689) in criminal justice, during which they conduct a research project designed to meet the needs of the applied internship setting. This project results in a formal internship report that is designed and presented much like a thesis.

Plan II: Candidates must complete a minimum of 33 semester hours of graduate credit, including SOC 713, Research Design. Students are required to pass a four-hour comprehensive examination in their area of specialization, a two-hour examination in sociological theory, and a two-hour examination in research methods/statistics.

Doctor of Philosophy

Students are required to complete 60 semester hours of graduate credit beyond the master's degree, including a maximum of 24 semester hours of dissertation credit. Hour requirements, however, are secondary in importance to breadth and depth of knowledge as evidenced by performance on the departmental comprehensive examinations and demonstrated research competence. The dissertation, a mature piece of scholarship embodying the results of original research, is central to the student's plan of study. Students are expected to develop a dissertation proposal early in their program.

Students are given considerable flexibility in working out their programs of study, although all students are expected to achieve a level of basic competence in theory, research methods, and statistics. Most students choose a major and a minor area of concentration from among the following areas: criminology/deviance, population studies/demography, or social psychology/family studies. Students may specialize in an area other than one of these three as long as there is sufficient faculty

expertise in the area to permit specialized advanced study.

Students are required to take five basic courses in theory and research: SOC 601, Classical Sociological Theory; SOC 602, Modern Sociological Theory; SOC 611, Intermediate Methodology; SOC 612, Intermediate Statistics; and SOC 713, Research Design. A minimum of 16 hours of SOC 799, Dissertation Research, is also required.

Students must fulfill a language requirement through one of two options. The requirement may be met either by (a) successfully passing (with a grade of B or better) CS 630, Statistical Packages, or (b) demonstrating proficiency in SPSS and SAS by satisfactory performance on a proficiency examination administered by the department.

Students must take written comprehensive examinations in the following three areas: methods/statistics; major area; and minor area. The examination in the major area is a single eight-hour written examination and the minor area examination is a four-hour examination. The methods/statistics examination is four hours. Students who pass all of the required courses in the methods/statistics sequence (SOC 611, SOC 612, SOC 713) with a grade of B or better, and who have acquired a grade point average of 3.5 or better in that sequence, will be exempt from taking the corresponding required examination.

Courses for Graduates

SOC 520. Techniques of Demographic Analysis I (3). Procedures and techniques for collection, evaluation, and analysis of demographic data; census and vital registration systems; basic measures of demographic components, construction of simple life tables, population estimates, and forecasts.

SOC 550. Family and Sex Roles (3) On demand. 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. Prerequisite: SOC 101.

SOC 551. Sociology of Family Violence (3) Alternate years. Current

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research and theoretical perspectives on family violence: spouse battering; marital rape; sibling violence; incest; and child abuse. Sex roles, family ideologies, social structures, and power relations are examined as constituting the basis of family conflict and violence between family members.

SOC 557. 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 586. Workshop in Sociology (1-4) Fall, Spring. Study of a particular topic in an intensive format. Topics vary.

SOC 601. Classical Sociological Theory (3). Nineteenth-century European sociological theory, focusing on origins and growth of sociology. Prerequisite: SOC 302 or equivalent, or consent of instructor.

SOC 602. Modern Sociological Theory (3). Sociological theory from the end of World War II to today. Major theories of contemporary sociology. Prerequisite: SOC 601 or equivalent, or consent of instructor.

SOC 611. Intermediate Methodology (3). An intermediate-level treatment of research methodology including methods of observation, questionnaire and interview construction for mail and telephone surveys, sampling strategies, and measurement techniques. Computer software applications.

SOC 612. Intermediate Statistics (3). An intermediate-level treatment of social statistics including descriptive and inferential statistics, crosstabulation, elaboration, analysis of variance, correlation and regression, multiple regression, and an introduction to statistical packages for computer processing. Prerequisite: SOC 611.

SOC 621. Population and Society (3). Human population; major variables (population size, composition, and distribution); processes of change (birth, death, migration); social, economic, and political determinants and consequences.

SOC 622. Human Ecology (3)

On demand. Theory and application, emphasis on research. Selected topics in areal structure and spatial distribution.

SOC 627. Introduction to Applied Demography (3). The decennial census, its concepts, procedures, and content. Location and use of census data, printed and machine-readable form. Sources of postcensal demographic data. Uses of census and related data for business and government.

SOC 629. Market Demography (3) Alternate years. Development of demographic information for a broad range of market research problems. Interpretation of demographic data as well as evaluation and selection of data available from vendors and government agencies.

SOC 630. Sociology of Conflict (3). Classical and contemporary perspectives on social conflict. Prerequisite: SOC 602.

SOC 632. Social Change (3) Alternate years. Historical and contemporary theories and methods employed in study of social change.

SOC 633. Organizations (3) On demand. 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 636. Social Stratification (3) Alternate years. Classes, class conflict, social mobility.

SOC 643. Small Groups (3) Experimental design, data analysis, development of theories. Prerequisite: SOC 650 or consent of instructor.

SOC 644. Deviant Behavior (3). A survey of theories from the 18th century to the present on the causes of deviant behavior. Specific theories, their place in concomitant intellectual paradigms, and their contributions to current topics and theoretical models are studied.

SOC 645. 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 646. Theories of Criminal-

ity (3) Alternate years. Criminal behavior as analyzed by theorists of 18th, 19th, and 20th centuries.

SOC 647. Sociology of Mental Illness (3). Alternate years. The social, economic, and political forces that shape the definition of and response to mental illness across cultures and time.

SOC 650. Proseminar in Social Psychology (3) Alternate years. Contemporary systematic positions; review of research methods; theories and problems of current importance.

SOC 653. Social Psychology of the Marital Dyad (3). 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.

SOC 654. Family Theory and Research (3) On demand. 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.

SOC 659. Sociology of Education (3) On demand. Social structure and culture of schools; interrelationships between educational institutions and society.

SOC 660. Teaching Introductory Sociology (3). 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 678. Seminar in American Culture 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 678 is also listed in this catalog as ACS 678. During a given semester, a student may receive credit for only one of these courses.

SOC 680. Seminar in Selected Topics (1-3) On demand. Systematic study of selected topics in several areas of sociology. Prerequisite: consent of instructor.

SOC 685. Readings in Sociology (1-3). Selected problems in sociology;

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proposed program of study must be approved by instructor. Graded S/U.

SOC 689. Internship in Sociology (1-6). Supervised professional experience within occupational setting related to student's area of academic specialization. Graded S/U.

SOC 694. Workshop on Current Topics in Sociology (1-6) On demand. Workshops designed for current topics, issues, and social problems as reflected in society. Focus may vary from semester to semester.

SOC 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in preparation for the master's comprehensive examination. Graded S/U.

SOC 699. Thesis Research (1-12). 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 705. Advanced Studies in Sociological Theory (3) On demand. In-depth analysis of selected theoretical issues. Prerequisite: SOC 602.

SOC 707. Theory Construction in Sociology (3) On demand. Interrelations between theory building and empirical findings. Prerequisites: SOC 602 and SOC 611 (Methodology).

SOC 713. Research Design (3). Problem formulation in behavioral research, alternative research designs, approaches to evaluation research, and research reporting. Prerequisite: SOC 611, 612, or consent of instructor.

SOC 716. Advanced Studies in Methodology (3) On demand. Critical examination and evaluation; includes such topics as qualitative analysis, ethnomethodology, typological analysis, use of models and quasi models. Prerequisites: SOC 611 and SOC 612.

SOC 718. Measurement and Sampling (3) On demand. Theory and methods; levels of measurement; unidimensional and multidimensional scaling techniques using digital computers. Prerequisites: SOC 611 and SOC 612.

SOC 719. Advanced Statistics (3). Topics vary from term to term. Illustrative topics include causal modeling, loglinear models, and structural equation systems. Com-

puter software applications. May be repeated. Prerequisite: SOC 612 or consent of instructor.

SOC 720. Techniques of Demographic Analysis II (3). Techniques not covered in SOC 620 are discussed. Multiple increment-decrement life tables, model life tables, stable and quasi-stable models, Hazards models, life table applications to subjects other than mortality, fertility and nuptiality model schedules, and an introduction to multi-stage demography. Prerequisite: SOC 620 or consent of instructor.

SOC 721. Indirect Methods for Demographic Estimation (3) Alternate years. Basic principles of indirect estimation of demographic characteristics such as fertility, infant mortality, adult mortality, and migration from incomplete and deficient data and examples of their applications using computer software. Prerequisite: SOC 620 or consent of instructor.

SOC 722. Population Forecasting (3). History of projection and forecasting. The cohort-component methods: development of population base, mortality, fertility, and migration data; scenario development; computer algorithms; judgment and control issues. Forecasting in a policy environment. Prerequisites: SOC 627.

SOC 723. Population and Third World Development (3) Alternate years. Theoretical and empirical literature which treats population trends as determinants of economic growth and development.

SOC 725. Seminar in Demography and Ecology (3). Selected topics in demography and human ecology. May be repeated.

SOC 726. Migration (3) Alternate years. International and internal migration; measurement, patterns, societal and individual consequences.

SOC 727. Morbidity and Mortality (3). Determinates and consequences of mortality trends and differentials in developed and developing societies.

SOC 728. Human Fertility and Family Planning (3). Correlates of fertility in industrial and preindustrial societies.

SOC 729. Community (3) Alternate years. Community theory, organization, power, and conflict.

SOC 732. Social Movements (3) Alternate years. Organizational, programmatic, action characteristics of contemporary social movements.

SOC 733. Collective Behavior (3) Alternate years. Analysis of forms, processes, and behavior in collectivities, crowds, publics, transitory groupings.

SOC 737. Political Sociology (3) Alternate years. Social sources and consequences of political strategies in both promoting and resolving conflicts in social organization.

SOC 738. Race and Ethnic Relations (3) On demand. Social structural, social psychological, and cultural variables associated with patterns of interaction between racial and ethnic aggregates.

SOC 741. Corrections (3). Sociopsychological factors in rehabilitation of law violators and in field of corrections.

SOC 742. Deviant Sexual Behavior (3) Alternate years. An examination of sexual behaviors that are current social and political issues; research on the behaviors' characteristics and on the sociopolitical aspects of official and public reactions.

SOC 743. Sociology of Violence (3) Alternate years. Generative conditions, principle components, and social consequences of non-institutionalized violence.

SOC 745. Sociology of Law (3). History and philosophy of criminal and civil law. Influence of social context in the creation and application of law.

SOC 750. Advanced Social Psychology (3) Alternate years. Societal influences on individual behavior with an attempt to bring together contributions from other related behavior sciences.

SOC 753. Socialization (3). Socialization and the life cycle; emphasis on origins of self-identity, consequences of self-conceptions for educational achievement and occupational attainment, and deviant behavior.

SOC 754. Women and Institutions (3). The position of women in different institutions of American society and other cultures examined theoretically and empirically. Course focuses on gender conflict and

Sociology - Technology

consensus in the family, politics, economy, education, and religion.

SOC 759. Sociology of Higher Education (3) On demand. 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 659.

SOC 760. 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 660. Graded S/U.

SOC 780. Seminar in Selected Topics (1-3) On demand. Systematic study of selected topics in several areas of sociology. Prerequisite: consent of instructor.

SOC 785. Readings in Sociology (1-3). Selected problems. Proposed program must be approved by instructor prior to registration. May be repeated. Graded S/U.

SOC 789. Internship in Sociology (1-9). Supervised professional experience within occupational

setting related to student's area of academic specialization. Graded S/U.

SOC 798. Readings for Preliminary Examination (1-12). Supervised independent readings in preparation for the doctoral preliminary examination. Graded S/U.

SOC 799. Dissertation Research (1-16). Credit for dissertation study. Enrollment in excess of 24 hours is acceptable, if approved by graduate committee, but no more than 24 hours creditable toward degree.

Technology

Master of Industrial Technology

Ernest Savage, Dean, College of Technology

Larry Hatch, Chair, Visual Communication and Technology Education

Wilfred Roudebush, Interim Chair, Technology Systems

Donna Trautman, Graduate Coordinator, College of Technology

Room: 206 Technology Building
Phone: 419-372-7613

Graduate Faculty

Professor - Gene Poor, Ph.D.; Ernest Savage, Ed.D.; John Sinn, Ed.D.

Associate Professors - Salim Elwazani, Ph.D.; Ernest Ezell, Ph.D.; Larry Hatch, Ph.D.; Sudershan Jetley, Ph.D.; Sri Kolla, Ph.D.; Wilfred Roudebush, Ph.D.; Todd Waggoner, Ph.D.

Assistant Professors - David Border, Ph.D.; Angelo Brown, Ed.D.; Stan Guidera, M.A.; Andreas Luescher, Ph.D.; Donna Trautman, Ph.D.

The **College of Technology** offers the **Master of Industrial Technology** (M.I.T.) which is designed for individuals interested in manufacturing technology or construction management and technology.

The manufacturing technology specialization includes study of advanced level automation and production systems, instrumentation

and control, engineering design with emphasis on computer-aided design, computer-integrated manufacturing, quality sciences, and related advanced course work.

The construction management and technology specialization includes study of advanced level construction contract management, program management, management models for construction operations, cost control, construction risk management, and related advanced course work.

The Master of Industrial Technology degree is designed to accommodate the needs of students and to respond to the requirements of industry for advanced technical and managerial personnel. The program is based on the need to effectively integrate technology and business operations created by advanced technology tools, new materials, computer graphics, and manufacturing and construction practices. The program addresses requirements for quality and better product and system design. It also addresses the need for increased productivity, conservation of energy, and resources. The design of advanced course work is dictated by the effect of these changes on leadership functions of technical managers.

The Master of Industrial Technology provides opportunities for students to engage in applied technical research. The outcomes of such activity add to the knowledge of relevant practice or solve immediate problems which arise in the work place.

Prerequisites to Graduate Work

The program is designed to serve graduates of recognized bachelor's degree programs in industrial technology and engineering technology, as well as graduates of other degree programs who wish to undertake professional studies in technology.

Applicants must have the appropriate distribution of undergraduate course work. Minimally, this includes 20 semester hours in a relevant technology or engineering field, 12 semester hours in business operations, and 15 semester hours of other courses including applied calculus, physics or chemistry, applied statistics, and computer science.

Admission Procedure

Applicants seeking admission to the Master of Industrial Technology program should follow the instructions outlined in the "Graduate Admission" section of this catalog. Applicants must present an undergraduate grade point average of no less than 3.0 on a 4.0 scale.

Degree Requirements

Master of Industrial Technology

The time required to complete the program varies from one-and-a-half to two years of full-time study. Part-time students must adjust their schedule for completion accordingly. Students may pursue the degree under one of two plans.

Plan I: Under this research-centered plan, candidates must complete a minimum of 33 semester hours of graduate credit and a thesis equivalent to an additional six semester hours. Within the 33 semester-hours requirement, oppor-

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tunities exist for internships and research in industry.

Plan II: Under this course-centered plan, candidates must complete a minimum of 33 semester hours of graduate credit and a major project equivalent to an additional six semester hours. Within the 33 semester-hour requirement, opportunities exist for internships and research in industry.

The Master of Industrial Technology program consists of four components. Specific courses that meet the component requirements are selected by the student in consultation with and approval of the graduate advisor. The four components are:

(1) the technology core (nine credits) which consists of course work in research and development, management models for technical operations, and organizational communication;

(2) the technology concentration (15 credits) which consists of course work in the following specialization areas: (a) *manufacturing technology* including advanced level automation and production systems, instrumentation and control, engineering design with emphasis on computer-aided design, computer-integrated manufacturing, quality sciences and related advanced course work; or (b) *construction management and technology* including advanced level construction contract management, program management, cost control, construction risk management, and related advanced course work;

(3) business operations (nine credits) which consists of statistics and course work selected through advisement from operations research or organizational theory and behavior; and

(4) the synthesis experience (six credits) options which are determined based upon the student's choice of Plan I or Plan II. Plan I requires a thesis and Plan II requires a major project. In this activity, the student synthesizes and applies knowledge derived from the program to solve complex human-machine problems or to analyze and develop prototype mechanisms or systems. Application of technology and business operations to the solution of human, machine, or technical management

problems is also integrated. Problems for thesis or major projects derived from the work place are encouraged.

Technology Courses for Graduates

TECH 554. Energy Conversion and Power Transmission (3) Spring (even years). 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: consent of instructor.

TECH 586/587. Workshop in Technology (1-4). Study of a particular topic in an intensive format. Topics vary. TECH 586 for a grade; TECH 587 graded S/U.

TECH 602. Instrumentation and Control (3) Fall (even years). A study of instrumentation and control and final control elements with emphasis on direct digital control. Prerequisite: ET 541 and ET 542.

TECH 603. Data Analysis and Decision Making in Technology (3) Spring, Summer (odd years). Concepts of data analysis, distribution and probability, variance and inference, data and their uses, and other statistical analysis techniques, with technological and industrial applications.

TECH 604. Technology of Concurrent Engineering (3) Spring, Summer (on demand). Integrated computer aided design/computer aided manufacturing (CAD/CAM), including programming, rapid prototyping, Finite Element Analysis (FEA), and expedited tooling configuration. Prerequisites: CS 500 and DESN 504 or equivalent.

TECH 626. Quality and Reliability Testing (3) Spring (even years), Summer (odd years). Implementation of quality and reliability through materials analysis, product development, design analysis and testing, and process control applications. Two hours lecture and two hours laboratory. Prerequisites: MFG 424, 426, and TECH 603; or equivalent.

TECH 627. Industrial Productivity Analysis (3) Fall, Summer (even years). Implementation and application of productivity analysis through contemporary productivity measurements, work methods design,

performance sampling analysis, and standardization to improve industrial productivity. Two hours lecture and two hours laboratory. Prerequisites: MFG 427 and TECH 603, or equivalent.

TECH 628. Computer Automated Manufacturing (3) Summer. Advanced study of computer integrated manufacturing and of its subsystems in flexible manufacturing applications. Two hours lecture and two hours laboratory. Prerequisites: MFG 428, TECH 604 or equivalent.

TECH 633. Visual Communication for Business and Industry (3). An accelerated inquiry into the theories and processes of systematic communication problem solving, slide presentation, desktop publishing, presentation graphics, and non-broadcast television production.

TECH 641. Construction Contract Management (3) Spring. Principles of the construction contract practice essential to procuring and administering construction programs. Contract procedures applied to construction cases from the viewpoints of the private and government buyer and the contractor of construction services. Prerequisites: CONS 440 or equivalent.

TECH 642. Construction Program Management (3) Fall. Principles and practical concepts essential to managing complex construction programs applied to a variety of construction cases. Administration of construction projects: planning, scheduling control, resource allocation, and least cost expediting. Prerequisite: CONS 442, STAT 500 or equivalent.

TECH 643. Cost Control Through Management of Pre-Construction Activities (3) Summer (odd years). Analysis of the events leading to the decision to build, and their impact on cost. Topics include: establishing and defining project requirements, site selection; regulation and government controls, land use, zoning, and environmental laws, including strategies for compromise, real estate feasibility, and facility design.

TECH 644. Management Models for Technical Operations (3) Fall, Summer (even years). Application of management science models to

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technical problems. Includes decision and risk analysis, expected value, queuing models, dynamic programming, and simulation of operational processes. Management strategies for operational improvement using case problems and computer models. Prerequisite: STAT 600, OR 380, or equivalent; or consent of instructor.

TECH 662. Analysis, Design, and Development in Training (3) Fall, Spring. Emphasizes the theory and competencies in training needs assessment, subject matter analysis, development of training/HRD proposals, and the design of training projects and programs to meet client needs. Course work includes training projects in business, industry, and other organizations. Prerequisite: C&TE 659 or consent of instructor.

TECH 663. Implementing Training Systems (3) Fall, Spring. Emphasizes the theory and processes involved in implementing, evaluating, and documenting effective training and development projects and programs. Course work includes training projects in business, industry, and other organizations. Prerequisite: C&TE 659 or consent of instructor.

TECH 665. Computer Courseware Design (3) Spring, Summer (on demand). An inquiry into the systematic development of instructional computer software ("computer courseware"); use of "multimedia" courseware authoring systems (CAS) applied to training problems; plus an overview of courseware authoring languages (CAL) and hypertext-based development tools. Prerequisite: C&TE 659 or consent of instructor.

TECH 679. Research and Development in Technology (3) Fall. Research and development strategies in technology. Emphasis is placed on preparation of a research or development proposal.

TECH 680. Seminar in Technology (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

TECH 682/683. Topics in Technology (1-3) On demand. Systematic study of selected topics and their application to construction management and technology or

manufacturing technology. Prerequisite: consent of instructor. May be repeated. TECH 682 for a grade; TECH 683 graded S/U.

TECH 684/685. Readings and Problems in Technology (1-3) On demand. Supervised study, selected problems, and/or tailored readings related to construction management and technology or manufacturing technology. Proposed program of study must be approved by instructor prior to registration. May be repeated to six credit hours. TECH 684 for a grade; TECH 685 graded S/U.

TECH 688/689. Graduate Internship (3). Work and study in business, industry, service, or government agency in a position related to student's intended area of specialization. Student assumes a professional role and pursues solutions to appropriate technical management problems. Placement must be approved by major advisor prior to registration. May be repeated to six hours. A minimum of 520 hours of employment during one semester is required. TECH 688 for a grade; TECH 689 graded S/U.

TECH 690/691. Directed Research in Technology (1-6). Supervised independent development project or research on a delimited topic in construction management and technology or manufacturing technology. Generation of new knowledge as contrasted with a private reading course. Proposal for directed research must be approved by instructor/major advisor prior to registration. Prerequisite: TECH 692 or consent of instructor. TECH 690 for a grade; TECH 691 graded S/U.

TECH 692. Research Proposal Development (1). Development of a research proposal, under the guidance of a research committee chair in preparation for TECH 699 or TECH 690/691. Generally to include comprehensive literature review, problem formulation, and research methodology. Prerequisite: TECH 679. Graded S/U.

TECH 694/695. Workshop in Technology (1-4). Study of a particular topic in an intensive format. Topics vary. TECH 694 for a grade; TECH 695 graded S/U.

TECH 699. Thesis Research (1-12). Credit for thesis study. A student

may register for unlimited thesis credits with a maximum of six credits allowable toward degree requirements. Prerequisite: TECH 692 or consent of instructor.

Additional Courses for Graduates **DESN 504. Computer Aided Modeling, Simulation, and Analysis**

(3) Spring. Study and application of computer modeling systems. Use of interactive methodologies. Development of three-dimensional entities and complex surface generation. Emphasis on learning how to computer model, simulate, and analyze as it relates to design. Prerequisites: DESN 204, 231, 243, and 304.

ARCH 536. Planning and Design of Industrial Facilities (3) On demand. Planning, estimating, design, and modeling of industrial facilities with consideration of management, personnel, production, aesthetics, and environment. Four hours lecture and laboratory. Prerequisite: ARCH 301.

ARCH 550. Architectural Design III (3) Fall. Third course in the architectural design sequence with focus on design of large complex buildings. Emphasis on design of multiple circulation patterns and multiple uses within a single building or complex of buildings. One hour of lecture and four hours of laboratory. Prerequisite: DESN 301.

DESN 552. Design in Industry (3) Fall (on demand). Capstone course for mechanical design. Systems approach applied to solution of one or two product design problems; emphasis on feasibility of design solutions, manufacturability, and consideration of assembly. Prerequisites: DESN 304 and DESN 404.

ENVR 521. Industrial Pollution Control (3) Spring. 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.

ECT 541. Instrumentation (3) Fall, Summer (on demand). Industrial instrumentation, measuring mechanical, fluid, and electric phenomenon, transducers, recorders, indicators, and controllers. Principles underlying their design and applications. One and one-half hours of

Technology - Theatre

lecture and three hours of laboratory. Prerequisite: ECT 241 and CS 205 or consent of instructor.

ECT 542. Digital Computer Analysis (3) Spring (even years), Summer (on demand). Organization and construction of mini-macro computers, machine language programming, interfacing, including developing logic design, selection of integrated circuits, assembly, testing, and system diagnostic testing procedures. One and one-half hours of lecture and three hours of laboratory. Prerequisites: ECT 358 or consent of instructor.

ECT 543. Electronic Devices (3) Fall, Summer (on demand). Semiconductor devices, FET transistors, operational amplifiers, and optoelectronic devices including theory of operation, specifications, performance testing, and applications. One and one-half hours of lecture and three hours of laboratory. Prerequisite: ECT 241 or consent of instructor.

ECT 553. Digital Computer for Process Control (3) Spring, Summer (on demand). Basic concepts, terminology, evaluation, and types of control systems as they apply to industrial process control and positioning systems. These systems will be subdivided into measurement,

controllers, and final control elements. One and one-half hours of lecture and three hours of laboratory. Prerequisite: ECT 358 or CS 217, CS 205, MATH 131, or equivalent.

ECT 586. Digital Communication and Networking (3) Spring (odd years), Summer (on demand). Intensive study of digital electronic communication and networking; digital modulation schemes, transmission media characteristics, interface standards like RS 485, network standards and configurations, testing equipment. One and one-half hours of lecture and three hours of laboratory. Prerequisite: ECT 344, ECT 442, and CS 205.

VCT 556. Digital Color Applications (3) Fall, On demand. Basic color theory and color models as applied in color capture (scanning, photo, video) and output (monitors/videos, color printers, color separation). Color management as applied in color image processing is also studied. Four hours lecture/laboratory. Prerequisite: VCT 308 or instructor approval.

VCT 560. Digital Photography (3) On demand. Research and experimentation in computer-generated digital imaging techniques. Four hours lecture/laboratory. Prerequisite: VCT 382.

VCT 566. Principles of Multi-media Production (3) Fall. Exploration and experimentation in various visual presentation technologies including digital media. Emphasis on design and production of total presentations. Four hours lecture/laboratory. Prerequisite: VCT 203 and 308, or instructor approval.

VCT 583. Color Photography (3) On demand. Theories and principles in production of color negatives, prints, and transparencies for commercial and industrial photographic applications; emphasizes basic color sensitometry, quality control techniques and use of laboratory color films. Four hours lecture/laboratory. Prerequisite: VCT 382 or consent of instructor.

C&TE 659. Training in Industry and Business (3). An introduction to the theory and practice of training and development systems within the area of human resource development. Addresses the role of training in organizations, adult learning, needs analysis, instructional design, formative and summative evaluation, cost-benefit analysis, professional organizations in HRD, and other relevant topics. (For advanced training courses, see TECH 662 and TECH 663.)

Theatre

Master of Arts

Doctor of Philosophy

Ronald E. Shields, Chair
Lisa Wolford, Graduate Coordinator
Room: 338 South Hall
Phone: 419-372-2222

Graduate Faculty

Professors - F. Scott Regan, Ph.D.; Ronald Shields, Ph.D.

Associate Professors - Bradford Clark, M.F.A.; Margaret McCubbin, M.F.A.

Assistant Professors - Cynthia Baron, Ph.D.; Steven Boone, M.F.A.; Michael Ellison, Ph.D.; Lesa Lockford, Ph.D.; Lisa Wolford, Ph.D.

The **Department of Theatre** offers programs leading to the degrees

of **Master of Arts** and **Doctor of Philosophy**. The goal of the graduate programs in theatre is to enhance the knowledge, research and writing skills, and artistic ability of students to enable them to function effectively as scholars, teachers, and artists. Academic studies, research, and production experiences are designed to meet the individual needs and interests of students.

The M.A. program is designed to relate basic ideas in theatre history, theory and criticism to creative production in an effort to prepare students for futures in education, professional study, or further graduate study. The doctoral program is for those students planning careers as faculty members in higher education. The Ph.D. program focuses on developing students' abilities to do teaching, research, and writing in an area of specialization.

Prerequisites to Graduate Work

Applicants to the M.A. program must hold a bachelor's degree from an accredited institution and present a satisfactory academic record. Admission usually requires 36 quarter hours or 24 semester hours of undergraduate work in theatre, including courses in acting, directing, technical theatre, and dramatic literature. Applicants with undergraduate majors in fields other than theatre will be considered for admission on an individual basis and may be required to take specified remedial undergraduate course work.

Applicants to the Ph.D. program must hold a master's degree and present a record indicating potential for successful, advanced scholarly and creative work. Applicants are expected to have completed M.A. courses in research methodologies, theatre history, theatrical production,

Theatre

theory and criticism, and dramatic literature. The graduate selection committee will review the records of all incoming doctoral students in accordance with their declared interests and, if necessary, the doctoral applicant may be required to take specified remedial master's level course work.

Admission Procedure

Applicants seeking admission to the graduate programs in theatre should follow the instructions outlined in the "Graduate Admission" section of this catalog. In addition, applicants must submit an essay describing their educational and professional goals and a sample of research writing.

Degree Requirements

Master of Arts

The M.A. degree in theatre is offered under two plans.

Plan I: Candidates must complete 32 semester hours of graduate credit and write a thesis demonstrating an ability to carry on research or independent creative activity. Students must pass an oral examination over the thesis.

Plan II: Candidates must complete a minimum of 32 semester hours of graduate credit and prepare and defend a portfolio of creative/research/pedagogical materials.

Students are encouraged to have summer stock theatre experience as part of the master's degree program. They may gain the experience through the Department's summer stock theatre or demonstrate evidence of a comparable experience elsewhere.

Doctor of Philosophy

Students must complete 64 semester hours of graduate credit beyond the master's degree, which includes dissertation credit. Students must also fulfill a research tool requirement (totaling nine semester hours, in other departments). The student must demonstrate that the courses taken to fulfill the research tool requirement are essential preparation for the research and writing of the dissertation. Semester hours earned by fulfilling the research tool requirement do not count towards the required 64 semester hours of post-master's graduate credit.

The doctorate is granted after

candidates pass an oral defense of the dissertation. The dissertation must be an appropriate culmination of the candidate's program of study, and represent scholarly research and writing appropriate in method and subject to the degree program. Details of requirements in addition to the dissertation are found in the department's *Ph.D. Handbook*.

Students are required to demonstrate proficiency in pedagogy, research, and theatre production through formal course work and practica. Whenever appropriate, students are encouraged to participate in professional conventions and/or publish their research findings.

Courses for Graduates

THEA 559. Research Methods in Theatre (3) Fall. Introduction to research, research methodologies and techniques, and implications of research in theatre. Hours may not be applied toward doctoral degree program.

THEA 560. Theatre/Performance in Cultural Contexts I (4) Fall. Development of global theatre and drama in historical contexts. Examination of the physical, social, political, cultural, and aesthetic manifestations of performance from origins through the seventeenth century.

THEA 561. Theatre/Performance in Cultural Contexts II (4) Spring. Development of global theatre and drama in historical contexts. Examination of the physical, social, political, cultural, and aesthetic manifestations of performance from the eighteenth century to the present.

THEA 562. Theories of Drama and Performance (3) On demand. Major critical theories from Aristotle to present. Topic to be announced.

THEA 563. Playwriting (3) On demand. The craft of the playwright, from idea inception to the construction of a complete, original play. Regular readings and writings, collaborative workshops, public presentation of works in progress. May be repeated with consent of instructor.

THEA 565. Period, Style, and Form (3). Fall. Historical overview of decorative arts in their social context for application in productions.

THEA 566. Staging Musical Theatre (3) Alternate years. Theoretical and practical problems in staging the musical play.

THEA 572. Scene Design (3) On demand. Theory and practice of scenic design for the stage and screen. Exploration of period styles as well as conceptual approaches to the work of the stage designer and film art director.

THEA 573. Costume Design (3) On demand. Theory and practice of costume design for the stage. Studio work is provided.

THEA 574. Lighting Design (3) On demand. Contemporary theories and practice in lighting design for the stage, television, and film. Examination of the history of lighting design and major figures in development.

THEA 575. Scene Painting (3) On demand. Practical, traditional scene painting as well as an exploration of nontraditional approaches to the work of the scenic artist. Laboratory work on University productions required.

THEA 576. Styles of Rendering for Theatre and Film (3) On demand. Practical approaches to traditional rendering techniques as well as exploration into nontraditional approaches to the graphic work of the theatrical designer and film art director.

THEA 664. Seminar in Directing (3) Spring. Advanced special problems in theatrical directing with attention to particular needs of individual students.

THEA 667. Staging Image and Text (3) Fall. Theory and practice of adapting and staging literary and visual texts in performance. Staging venues explored include Gallery Theatre, performance art, Readers Theatre, and Chamber Theatre.

THEA 668. Topics in Performance Studies (3) Spring. Historical, theoretical, and pedagogical issues in performance studies. Topics may include one-person performance, the bardic tradition, performance as cultural studies, performance theory, and pedagogy. Specific topic to be announced. May be repeated for credit.

THEA 669. Theatre for Young Audiences (3) On demand. Introduction to producing plays for child

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audiences; application of concepts of child development on aesthetic problems of theatre for young audiences, through reading, discussion, and participation.

THEA 670. Topics in History of Theatre in the Americas (3) Alternate years. Selected topics which examine the interrelationships between economic, political, social, cultural, and intellectual history and aspects of theatre/performance in the Americas.

THEA 671. Topics in Theatre Organization and Management (3) On demand. Principles and techniques of organizing and managing theatre production programs in educational, community, and commercial settings.

THEA 679. Theatrical Visions: Performance Theory and Practice (3) On demand. Exploration of specific topics in performance theory and practice, including design, technology, lighting, and staging.

THEA 684. Directed Readings in Theatre (3). Supervised independent readings in a focused area of study. For master's students.

THEA 688. 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 690. Research Problems in Theatre (1-3). Independent studies and research problems in theatre for master's degree students. Registration must be approved by department chair. May be repeated with approval of graduate coordinator and department chair.

THEA 695. Workshop on Current Topics in Theatre (1-3). On demand. Reading, experiences in theatre; topics vary from semester to semester. May be repeated with approval of graduate coordinator. Graded S/U only.

THEA 697. Practicum in Theatre/Performance Pedagogy (1-4). Applied research in pedagogical activities. Required of all graduate assistants each semester. Four hours required and creditable for degree. Graded S/U.

THEA 698. Readings for Comprehensive Examination (1-12). Supervised independent readings in

preparation for the master's comprehensive examination. Hours may not be applied toward master's degree program. Graded S/U.

THEA 699. Thesis/Portfolio Research (1-12) On demand. Credit for thesis or portfolio research. Enrollment in excess of three hours is acceptable for master's degree, but no more than three hours creditable toward degree. Minimum acceptable total for degree is three hours. Graded S/U.

THEA 760. Theatre/Performance Pedagogy (4) On demand. Pedagogical philosophies, problems, and issues associated with teaching theatre and performance studies.

THEA 761. Topics in Directing and Staging Styles (3) On demand. Approaches to addressing problems of style in such plays and movements as: classical, Shakespearean, Restoration, Epic, Absurdist. May be repeated with consent of graduate advisor.

THEA 762. Topics in Directing and Staging Theory (3) On demand. Theoretical approaches to directing and staging. Topics include such issues as: playscript interpretation, collaboration among actors, director, designer; audience response, coaching the actor. May be repeated with consent of faculty advisor.

THEA 766. Topics in Theatre History: Ancient-16th Century (3) Alternate years. Selected topics which examine interrelationships between economic, political, social, cultural, and intellectual history and aspects of theatre/performance from ancient times through the 16th century. May be repeated with consent of faculty advisor.

THEA 767. Topics in Theatre History: 17th-19th Centuries (3) Alternate years. Selected topics which examine the interrelationships between economic, political, social, cultural, and intellectual history and aspects of theatre/performance during the 17th-19th centuries. May be repeated with consent of faculty advisor.

THEA 768. Interdisciplinary Performance Theory (4) On demand. Selected topics which examine the interrelationships among economic, political, social, cultural, and intellectual history and aspects of theatre/

performance. May be repeated with consent of faculty advisor.

THEA 772. Critical Traditions in Theatre/Performance I (4) Fall. Historical and theoretical writings pertaining to theatre and performance in cultural contexts from antiquity through the seventeenth century.

THEA 773. Critical Traditions in Theatre/Performance II (4) Spring. Historical and theoretical writings pertaining to theatre and performance in cultural contexts from the eighteenth century to the present.

THEA 775. Readings in Classical and Neo-Classical Theatrical Literature (3) Alternate years.

Dramatic literature in ancient Greece and Rome, and French neo-classical period.

THEA 776. Readings in 16th-17th Century Theatrical Literature (3) Alternate years. Dramatic literature in England and continent during 16th-17th centuries.

THEA 777. Readings in 18th-19th Century Theatrical Literature (3) Alternate years. Dramatic literature in America, England, and continent during 18th-19th centuries.

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 781. Seminar in Theatre (1-4) On demand. Systematic exploration of a particular aspect of the discipline. May be repeated for credit. Graded S/U.

THEA 782. Contemporary Theory and Performance (4) On demand. Specific critics, playwrights, genres of performance, or particular critical viewpoints. May be repeated for credit or with consent of faculty advisor.

THEA 784. Directed Readings in Theatre (3). Supervised independent readings in a focused area of study. For doctoral students.

THEA 786. Independent Study in Theatre (1-3). Supervised independent completion of a project other than readings.

THEA 788. Practicum in Theatre (1-12). Supervised experience in theatre production, acting, management, technical theatre. Field

Theatre - Women's Studies

placement must be approved by supervisor and department chair prior to placement.

THEA 790. Directed Research in Theatre (1-3). Supervised independent research.

THEA 797. Supervised Practicum in Theatre (1). Supervised

practical field application or clinical experience offered on an individualized basis. Graded S/U.

THEA 798. Readings for Preliminary Examination (1-12). Supervised independent readings in preparation for the doctoral preliminary examination. Hours may not be

counted toward degree program. Graded S/U.

THEA 799. Dissertation Research (1-16). 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.

Women's Studies Certificate in Women's Studies

Vickie Rutledge Shields, Director/
Graduate Coordinator
Room: 250 Shatzel Hall
Phone: 419-372-7133 or 372-2620

Steering Committee

Ellen Berry (English), Rachel Buff (History), Colleen Coughlin (Women's Studies), Kathleen Farber (Educational Foundations and Inquiry), Rona Klein (English), Vikki Krane (Human Movement, Sport, and Leisure Studies), Jeannie Ludlow (American Culture Studies), Vickie Rutledge Shields (Telecommunications), Oppor-tune Zongo (Romance Languages)

Graduate Faculty

Professors - Ellen Berry, Ph.D. (English), Alice Calderonello, Ph.D. (English), Vivian Patraka, Ph.D. (English)

Associate Professors - Lillian Ashcraft-Eason, Ph.D. (History), Kris Blair, Ph.D. (English), Sherlon Brown, Ph.D. (Intervention Services), Kathleen Farber, Ph.D. (Educational Foundations and Inquiry), Vikki Krane, Ph.D. (Human Movement, Sport, and Leisure Studies), Linda Pertusati, Ph.D. (Ethnic Studies), Trish Shewokis, Ph.D. (Human Movement, Sport, and Leisure Studies), Opportune Zongo, Ph.D. (Romance Languages)

Assistant Professors - Deborah Alvarez, Ph.D. (English), Cynthia Baron, Ph.D. (Theatre), Rachel Buff, Ph.D. (History), Liette Gidlow, Ph.D. (History), Royce Ann Martin, Ph.D. (Technology Systems), Valerie Rohy, Ph.D. (English), Vickie Rutledge Shields, Ph.D. (Telecommunications), Linda Ueltschy, Ph.D. (Legal Studies and International Business), Lisa Wolford, Ph.D. (Theatre)

Graduate work in Women's Studies may be pursued several ways. Students may take individual courses through existing master's and doctoral programs in various departments throughout the University. The certificate in women's studies may be pursued as major or minor area of concentration within established graduate degree programs at BGSU, such as American Culture Studies (consult with individual graduate programs when pursuing this option).

Graduate Certificate in Women's Studies

The **Graduate Certificate in Women's Studies** brings together scholars and graduate students across the University actively engaged in interdisciplinary feminist scholarship. The certificate offers an official acknowledgement of training and expertise in the field of women's and gender studies. The certificate program provides students with knowledge of a unified approach to the study of fundamental issues in sex and gender studies. Students examine how sex and gender have been reflected in culture across time; how they shape institutions as well as personal experience; how they interact with issues such as race, ethnicity, and socioeconomic class; and how new ways of thinking about gender challenge the processes by which knowledge about human beings and our behavior is acquired, interpreted, and transmitted. Such a program offers the possibility of cross-disciplinary influence and collaboration, extra-departmental collegiality and support, and professional certification in this rich field of study.

The graduate certificate in women's studies is intended to supplement professional training, whatever it may be. As a stand-alone credential, the certificate is designed for individuals working in fields related to women's health care and well being

(such as battered women's shelters and women's clinics), as well as professionals in positions of advocacy for women (such as in legal and social services professions), elementary, high school, and community college teachers, and returning, nontraditional students.

The certificate may be pursued as a major or minor area of concentration within established graduate degree programs at BGSU (consult with individual graduate programs when pursuing this option).

The certificate acknowledges formal training and expertise in issues of cultural diversity, gender equity, feminist theory, feminist methodology, and the infusion of gender into all psychological, social, and mediated relationship.

Admission Procedures

Students must apply to the Graduate College for general admission. Admission forms are available at the women's studies program office at 246 Shatzel Hall. GRE scores are not necessary for the stand-alone certificate.

In addition to the application required by the Graduate College, applicants to the certificate program must submit the following to the women's studies program: (1) two letters of recommendation from recent instructors, employers, or other individuals qualified to evaluate probable success in the program, (2) a brief statement of intent delineating the purpose for enrolling in the program, (3) a brief personal statement outline career goals. Careful attention is given to these materials.

Admission Requirements

Students who wish to be admitted to the graduate certificate program in women's studies must meet at least one of the following requirements:

(1) be enrolled in a graduate program at BGSU;

or, for the stand-alone certificate:

Women's Studies

(2) hold a bachelor's degree with a 3.0 minimum grade point average;

(3) have completed a graduate degree in any area.

Certificate Requirements

The certificate program consists for five courses plus a one credit hour independent research project distributed between required and elective courses across a range of disciplinary areas.

All students must successfully complete WS 620, Feminist Theory (3 credits), or a graduate course with equivalent content. As a capstone to the certificate program, all students must also successfully complete one credit hour of WS 786, Independent Study in Women's Studies, working with their certificate program advisor.

The remaining four courses may be selected from an approved list of graduate-level courses offered by women's studies or cross-listed by other departments and programs. To help ensure that studies are broadly interdisciplinary in nature, no more than two of these elective courses may be taken in any single department/program. At least one elective course must be at the 700 level.

Certificate Program Advisors

Each student admitted to the women's studies certificate program will be assigned a temporary certificate advisor. The student may change advisors at anytime during his/her course of study, but must have a permanent certificate program advisor in place before commencing his/her one credit hour capstone research project. Women's studies certificate program advisors will be graduate faculty in good standing who are closely affiliated with the women's studies programs as joint appointments, members of the Women's Studies Advisory Committee, and/or faculty members who teach courses in the certificate program, who agree to serve in this capacity.

Transfer Credit

Continuing graduate students may receive credit for up to five approved courses toward the certificate. Students who have completed degrees and are returning for the certificate may transfer no more than six hours of credit. The rules regarding transfer hours will be the same for certificate programs as they are for

other degree programs.

Time to Completion

The graduate certificate in women's studies must be completed within four years from the semester date that the first course is taken, including transfer credit.

The certificate is awarded upon the completion of five approved courses plus a one credit hour research capstone course. The graduate certificate in women's studies will appear on the student's official transcript. Further, individuals will receive a diploma-style certificate from the women's studies program upon completion.

Courses for Graduates

WS 580. Seminar in Women's Studies (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

WS 582. Topics in Women's Studies (2-4). Study of selected aspect of the discipline, particular area of concern, or question put forward for consideration.

WS 588. Internship in Women's Studies (1-3). Supervised practical field application or clinical experience offered on an individual basis.

WS 614. Gender and the State in Modern Europe (4) Spring. Comparative examination of the ways various forms of state (monarchal, liberal-democratic, fascist, communist) have shaped and responded to changes in gender roles and the family.

WS 620. Feminist Theory (3). An introduction to the principal conceptual bases underlying feminist theory across the disciplines. Examination of recent feminist theory and its applications in the fields of language; literature; film; religion; philosophy; history; psychoanalysis; developmental psychology; and politics.

WS 680. Seminar in Women's Studies (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

WS 682. Topics in Women's Studies (3-4) Fall, Spring. Examination of selected topics in women's studies and appropriate feminist theory and methods of analysis. Interdisciplinary in approach. May be

repeated, if topics differ.

WS 686. Independent Study in Women's Studies (1-3). Supervised independent completion of a project other than readings.

WS 690. Directed Research in Women's Studies (1-3) Fall, Spring. Topics not ordinarily offered in curriculum. Prerequisite: consent of instructor.

WS 694/695. Workshop in Women's Studies (1-3). Study of a particular topic in an intensive format. Topics vary. WS 694 for a grade; WS 695 graded S/U.

WS 720. Issues in Feminist Scholarship (3) Fall, Spring. Examination of an issue or cluster of issues in contemporary feminist scholarship. Study of contributions and impact of feminist analysis for research practice in a particular field or in several fields. May be repeated.

WS 770. Seminar in Women's Culture (3) Fall, Spring. Study of a selected aspect of women's culture from a multiethnic and/or global perspective. Examination of women's unique cultural contributions and experiences. May be repeated.

WS 780. Seminar in Women's Studies (3). Systematic exploration of a particular aspect of the discipline. May be repeated on approval of the graduate coordinator.

WS 782. Topics in Women's Studies (3-4) Fall, Spring. Seminar on selected feminist topics that addresses a major issue or cluster of issues and theoretical work on some aspect of the condition of women. Interdisciplinary in approach. May be repeated, if topics differ.

WS 786. Independent Study in Women's Studies (1-3). Supervised independent completion of a project other than readings.

WS 790. Directed Research in Women's Studies (1-3). Supervised independent research.

Crosslisted Courses

Three to five graduate-level women's studies courses are typically offered each semester. The majority of these courses are crosslisted with other programs. Please contact the Women's Studies program for an example of an approved list of courses offered consistently over the past five to seven years.

Administration and Faculty

Board of Trustees Term Expires

Delbert L. Latta, Bowling Green	2001
Kermit F. Stroh, Wapakoneta	2002
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Katie Newnam, Bowling Green	2001
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President

Sidney Ribeau

Faculty*

Judy Adams, 1979. B.S., Indiana State University; M.S., Ph.D., Bowling Green State University. Associate Professor of Medical Technology.

Jacob Adetunji, 1998. B.S., University of Calabar; M.S., University of Ibadan; M.A., Ph.D., Australian National University. Assistant Professor of Sociology.

James H. Albert, 1979. B.S., Bucknell University; M.A., Ph.D., Purdue University. Professor of Mathematics and Statistics.

W. David Albrecht, 1990. B.A., M.A., University of Iowa; Ph.D., Virginia Polytechnic Institute and State University. Associate Professor of Accounting and Management Information Systems.

Elizabeth Allgeier, 1980. B.S., University of Oregon; M.A., State University of New York, Oswego; Ph.D., Purdue University. Professor of Psychology.

Pamela C. Allison, 1985. B.S., University of North Carolina, Greensboro; M.A.T., University of North Carolina, Chapel Hill; Ed.D., University of North Carolina, Greensboro. Associate Professor of Human Movement, Sport, and Leisure Studies.

Judy Alston, 1999. B.A., Winthrop College; M.Ed., University of South Carolina; Ph.D., Pennsylvania State University. Assistant Professor of Educational Administration and Supervision and Leadership Studies and Chair of Educational Administration and Supervision.

Deborah Alvarez, 1999. B.A., Arizona State University; B.S.E., Kansas University; M.S., Kansas State University; M.A., Middlebury College; Ph.D., University of Wisconsin-Madison. Assistant Professor of English.

Haithe Anderson, 1998. B.A., Evergreen State College; M.A., University of Washington; Ph.D., Ohio State University. Assistant Professor of Educational Foundations and Inquiry.

Richard B. Anderson, 1991. B.A., M.S., Ph.D., Pennsylvania State University. Associate Professor of Psychology.

A. Rolando Andrade, 1977. B.A., B.D., Phillips University; M.A., Ph.D., University of Oklahoma. Associate Professor of Ethnic Studies.

Michael Arrigo, 1999. B.F.A., M.F.A., Ohio State University. Assistant Professor of Art.

Lillian Ashcraft-Eason, 1990. B.S., Hampton University; M.E., University of Virginia; Ph.D., College of William and Mary. Associate Professor of History.

Joe Austin, 1999. B.A., University of Houston; Ph.D., University of Minnesota. Assistant Professor of Popular Culture.

Sung Chul Bae, 1987. B.A.B.A., Korea University; M.B.A., Michigan State University; Ph.D., University of Florida. Professor and Chair of Finance.

Stacey Menzel Baker, 1998. B.S., M.B.A., Ph.D., University of Nebraska-Lincoln; Assistant Professor of Marketing.

John Balistreri, 1996. B.F.A., Kansas City Art Institute; M.F.A., Kent State University. Assistant Professor of Art.

Steven Ballard, 1998. B.A., University of Arizona; M.A., Ph.D., Ohio State University. Professor of Political Science and Vice Provost for Research and Graduate Dean.

Lena Ballone, 1999. B.S., Youngstown State University; M.Ed., Ph.D., University of Toledo. Assistant Professor of Educational Teaching and Learning.

Janet Ballweg, 1990. B.S., University of Wisconsin; M.F.A., University of Illinois. Associate Professor of Art.

William K. Balzer, 1983. B.A., State University of New York at Stony Brook; M.S., Rensselaer Polytechnic Institute; Ph.D., New York University. Professor of

Psychology and Interim Dean of Firelands College.

Julie Barnes, 1990. B.S., M.A., M.S., Bowling Green State University; Ph.D., Ohio State University. Associate Professor of Computer Science.

Cynthia Baron, 1999. B.A., University of California; M.A., San Francisco State University; Ph.D., University of Southern California. Assistant Professor of Theatre.

Doris J. Beck, 1974. B.S., Bowling Green State University; M.S., Ph.D., Michigan State University. Associate Professor of Biological Sciences.

Burton Beerman, 1970. B.M., Florida State University; M.M., D.M.A., University of Michigan. Professor of Musicology/Composition/Theory.

Khani Begum, 1991. B.A., M.A., Bangalore University; M.S., Ph.D., Southern Illinois University. Associate Professor of English.

Vasile Beluska, 1986. Baccalaureate Degree, Liceul de Muzica; M.M., Southern Methodist University. Professor of Music Performance Studies.

Marvin Belzer, 1991. B.A., Northwest Nazarene College; Ph.D., Duke University. Associate Professor of Philosophy.

Mary Ellen Benedict, 1991. B.A., Waynesburg College; M.S., Ph.D., Carnegie-Mellon University. Associate Professor of Economics.

Vincent Benitez, 1996. B.M., M.M., University of North Texas; M.M., Ph.D., Arizona State University; Ph.D., Indiana University. Assistant Professor of Musicology/Composition/Theory.

Curtis Bennett, 1993. B.S., Colorado State University; M.S., Ph.D., University of Chicago. Associate Professor of Mathematics and Statistics.

Mark L. Bennion, 1983. B.S., M.B.A., Ohio State University; Ph.D., Michigan State University. Associate Professor of Marketing.

Cynthia Stephens Benson, 1999. B.M.E., University of Central Arkansas; M.M., Rice University; D.M.A., University of Texas at Austin. Assistant Professor of Music Education.

John E. Bentley, 1972. B.S., University of Alabama; M.A., George Peabody College; A.Mus.D., University of Michigan. Profes-

* Year following name is year of first appointment at BGSU.

** Service on faculty is not continuous.

Administration and Faculty

sor of Music Performance Studies.

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