Bowling Green State University, Ohio  
Department of Architecture and Environmental Design

NAAB Course Descriptions

Design Studio Core
- ARCH 1050: Design Representation 1
- ARCH 2050: Design Representation 2
- ARCH 2220: Design Studio 1
- ARCH 3210: Design Studio 2
- ARCH 3220: Design Studio 3
- ARCH 4210: Design Studio 4
- ARCH 4220: Design Studio 5
- ARCH 6210: Graduate Design Studio 1
- ARCH 6220: Graduate Design Studio 2
- ARCH 6310: Graduate Design Studio 3
- ARCH 6320: Graduate Design Studio 4

Technologies Core
- CONS 2350: Introduction to Construction
- CONS 3360: Structural Design 1
- CONS 3380: Structural Design 2
- ARCH 2360: Mechanical and Electrical Building Systems 1
- ARCH 2710: Computer-Aided Design for Architecture
- ARCH 3360: Architectural Materials and Systems
- ARCH 3370: Mechanical and Electrical Building Systems 2
- ARCH 6510: Sustainable Systems
- ARCH 6520: Advanced Structures & Materials Methods

History/Theory Core
- ARCH 2330: History of Architecture 1
- ARCH 2340: History of Architecture 2
- ARCH 3310: Theory in Architectural Design
- ARTH 3630: Modern Architecture
- ARCH 6800: Seminar in Architecture and Design

Professional Core
- ARCH 6610: Professional Practice & Entrepreneurship
- ARCH 6620: Business Innovation by Design
- ARCH 6630: Applied Entrepreneurship

Note
The DA+ED offers additional courses which are not included because they are not NAAB required courses.
- Arch 1100 CADD for Architecture and Construction
- Arch 3720 Advanced Computer Aided Design for Architecture
- Arch 4010 Historic Preservation
- Arch 4730 Advanced Building Information Modeling for Architecture
Number & Title of Course (total credits awarded):
ARCH 1050: Design Representation 1 (3 credits)

Course Description:
Fundamental freehand and machine-assisted drawing principles necessary to the investigation, visualization and presentation of design ideas. Drafting methods and techniques including the principles of orthographic projection, paraline and perspective drawing.

Course Goals & Objectives:
1. Ability to read, write, speak, and listen effectively.
2. Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
3. Understanding of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

Student Performance Criteria addressed:
A.1. Architectural Design Skills

Topical Outline (include percentage of time in course spent in each subject area):
- Instrument-assisted drafting (30%)
- Free-hand drawing (10%)
- Model making (20%)
- Abstract form and small pavilion designs (30%)
- Reading and writing (10%)

Prerequisites:
None

Textbook/Learning Resources:

Offered (semester and year):
Fall and Spring

Faculty assigned:
Scot MacPherson (F/T)
Number & Title of Course (total credits awarded):
ARCH 2050: Design Representation 2 (3 credits)

Course Description:
Freehand and machine-assisted drawing principles necessary to the investigation, visualization and presentation of design ideas. Paraline and perspective drawing methods, shade and shadow, rendition of value and content, sketching and architectural presentation techniques.

Course Goals & Objectives:
- Familiarity with historical modes of architectural representation and mastery of essential tools and representational vocabularies.
- Acquisition of the confidence and knowledge necessary to describe architectural ideas effectively in a variety of graphic styles.
- Assignments are designed to familiarize students not only with media and techniques but also with habits of analytical observation and legible graphic presentation.

Student Performance Criteria addressed:
A.5. Ordering Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Design Dialogue Exercises (40%)
- Design Project (60%)

Prerequisites:
ARCH 1050 or permission of instructor

Textbook / Learning Resources:

Offered (semester and year):
Fall

Faculty assigned:
Kerry Fan (F/T)
Number & Title of Course (total credits awarded):
ARCH 2220: Design Studio 1 (3 credits)

Course Description:
Introduction to architecture and environmental design problem solving. Topics include anthropometrics, human-environment interaction, principles of form, style, order, proportion, scale and balance; concepts of programming and diagramming.

Course Goals & Objectives:
- Familiarity and understanding of introductory design principles.
- Acquisition of the confidence and knowledge necessary to describe architectural ideas effectively through the use of diagramming and process comprehension.
- Assignments are created in a repetitive manner to implement learning outcomes that familiarize students with process and analytical observation.

Student Performance Criteria addressed:
A.5. Ordering Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Design Dialogue Exercises (40%)
- Design Project (60%)

Prerequisites:
ARCH 2050 or permission of instructor

Textbook / Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
D. Scot MacPherson (F/T)
Number & Title of Course (total credits awarded):
ARCH 3210: Design Studio 2 (6 credits)

Course Description:
Studio course focusing on formal, theoretical, technical, and legal issues in architecture related to site design, interior and exterior spatial relationships, and building form with an emphasis on the influence of site and topography on architectural form.

Course Goals & Objectives:
This course stresses the linkage of the natural environment to architectural design through addressing two broad issues:
1. Architecture and nature. This entails:
   Investigating and designing Architectural sites/buildings in relation to environmental forces and sustainable principles.
2. Architecture and basic imperatives. This entails:
   Accommodating programmatic requirements.
   Conceptualizing viable technical scheme.
   Demonstrating a message expressive form.

Student Performance Criteria addressed:
A.1. Design Thinking Skills
B.2. Site-Design

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (60%)
- Leadership and Practice (40%)

Prerequisites:
C or better in ARCH 2220

Textbook/Learning Resources:

Offered (semester and year):
Fall only; annually

Faculty assigned:
Kerry Fan (F/T)
Sara Khorshidifard (F/T)
Number & Title of Course (total credits awarded):
ARCH 3220: Design Studio 3 (6 credits)

Course Description:
Formal design studio focusing on the design of moderately complex structures emphasizing programming and adjacency analysis, the relationship of building envelope and structure, and the relationship between built form and site.

Course Goals & Objectives:
This course has three primary purposes:
1. To develop student’s understanding of the relationship of architectural form to site as well as understanding of how structure functions as a generator or determinant of form.
2. To develop an understanding of the pragmatic and technical issues related to architecture and design, including accessibility.
3. To build upon the knowledge and skills developed in previous architecture courses and foster continued development of graphic representation and communication skills.

Student Performance Criteria addressed:
A.2. Design Thinking Skills
A.4. Architecture Design Skills

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (60%)
- Leadership and Practice (40%)

Prerequisites:
Prerequisite: C or better in ARCH 3210

Textbook/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
Sara Khorshidifard (F/T)
Salim Elwazani (F/T)
Number & Title of Course (total credits awarded):
ARCH 4210: Design Studio 4 (6 credits)

Course Description:
The study of urbanism in the holistic context of environmental design in relationship to urban design, architecture, landscape architecture and city planning. The study of cities as a multidiscipline process integrating physical, social, economic, political and sustainable factors.

Course Goals & Objectives:
- Student will explore all forms of urban design strategies, tactics and techniques.
- Student will learn to embrace collaboration with planning students, faculty, professionals, and community citizens while studying urban precedence, the history of downtown Toledo, and contemporary developments in the city.
- Student will learn to speak in public settings.

Student Performance Criteria addressed:
A.1. Investigative Skills
A.6. Use of Precedents

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (60%)
- Leadership and Practice (40%)

Prerequisites:
C or better in ARCH 3220

Textbook/Learning Resources:

Offered (semester and year):
Fall only; annually

Faculty assigned:
Scot MacPherson (F/T)
Sara Khorshidifard (F/T)
Number & Title of Course (total credits awarded):
ARCH 4220: Design Studio 5 (6 credits)

Course Description:
This intensive studio course represents the culmination and recapitulation of all previous courses in the undergraduate degree program: a capstone. This design course pursues a holistic and integrated approach to architectural design. Emphasis is placed on the development by each individual student of a selected design problem.

Course Goals & Objectives:
Within the described holistic approach, the course objectives are handled under three student learning categories:
- Creating Architectural Form (Concept & Composition): Context, program, philosophical reference, and aesthetics.
- Materializing the Form (Development & Construction): Holding the form, enclosing the form, and acclimatizing the spaces.
- Communicating the design: Integrating diverse communication modes to address evolving stages of design, submissions, and presentations.

Student Performance Criteria addressed:
A.1. Professional Communication Skills
A.6. Use of Precedents

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (40%)
- Integrated Building Practices, Technical Skills and Knowledge (40%)
- Leadership and Practice (20%)

Prerequisites:
C or better in ARCH 4210

Textbook/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
Scot MacPherson (F/T)
Salim Elwazani (F/T)
Kerry Fan (F/T)
Number & Title of Course (total credits awarded):
ARCH 6210: Graduate Design Studio 1 (6 credits)

Course Description:
Comprehension of architectural design methods through topical investigation and studio project that address diverse cultural, social, behavioral, and physical needs and problems.

Course Goals & Objectives:
- **Understanding** of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and their implication on the societal roles and responsibilities of architects.
- **Ability** to prepare a comprehensive project program, such as client and user needs, space and equipment requirements, an site condition analysis, related laws and standards, and site selection and design assessment criteria.
- **Ability** to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.
- **Ability** to apply the basic principles of life-safety systems and especially egress.
- **Understanding** of architect's responsibility to public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

Student Performance Criteria addressed:
- A.8. Cultural Diversity and Social Equity
- B.1. Pre-Design

Topical Outline (include percentage of time in course spent in each subject area):
- Site condition study (15%)
- Literature study (15%)
- Design project (50%)
- Class discussion, review (20%)

Prerequisites:
ARCH 4220 and Admission to the M.Arch Program.

Textbook/Learning Resources:
Media: Various featured movies and documentaries.

Offered (semester and year):
Fall

Faculty assigned:
Salim Elwazani (F/T)
Number & Title of Course (total credits awarded):
ARCH 6220: Graduate Studio 2 (6 credits)

Course Description:
The second in the graduate design studio sequence, this course continues to develop design skills while introducing the integration of passive and sustainable technologies as fundamental components of design development. Lectures and guest lecturer will bring in contemporary practices and research in sustainability as a resource to be incorporated into guided design practice. Students will work both independent and group projects based on theoretical and actual current regional initiatives.

Course Goals & Objectives:
The course emphasizes:
- Application of basic sustainability theory in design
- Development of proficiency in integrative sustainable design of buildings and systems.
- Development of skills in green community design, including collaborations with community groups

Student Performance Criteria addressed
B.1. Pre-Design
B.2. Site Design

Topical Outline (include percentage of time in course spent in each subject area):
- Integrative design concepts 15%
- Sustainable building design 55%
- Sustainable community design 30%

Prerequisites:
ARCH 6210

Textbook/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
Stan Guidera (F/T)
Sara Khorshidifard (F/T)
**Number & Title of Course (total credits awarded):**
ARCH 6310: Graduate Design Studio 3 (6 credits)

**Course Description:**
Third design studio in the four-course graduate studio sequence. The course focus is on the integration of structural systems and materials exploration within a design studio project. Emphasis will be placed upon the relationship of structure to building enclosure, structure to form, and the detailed investigation of building connections and exterior/interior enclosure systems. This course is also intended to provide a foundation for understanding the protocols of architectural design by following a project from schematic design through construction.

**Course Goals & Objectives:**
- Acquisition of the confidence and knowledge necessary to describe architectural ideas effectively in a variety of graphic styles.
- Assignments are designed to familiarize students with habits of analytical observation and legible graphic presentation.
- Ability to develop a comprehensive architectural scheme through conceptual design thinking in tandem with construction specificity.

**Student Performance Criteria addressed:**
B.7. Building Envelope Systems  
C.2. Integrated Evaluations and Decision Making Design Process

**Topical Outline (include percentage of time in course spent in each subject area):**
- Integrated Building Practices, Technical Skills and Knowledge (60%)
- Critical Thinking and Representation (20%)
- Leadership and Practice (20%)

**Prerequisites:**
ARCH 6220

**Textbook / Learning Resources:**

**Offered (semester and year):**
Fall

**Faculty assigned:**
Andreas Luescher (F/T)
Number & Title of Course (total credits awarded):
ARCH 6320: Graduate Design Studio 4 (9 credits)

Course Description:
This thesis studio constitutes the realization of the investigation and exploration initiated in the previous design studios. Specifically, it offers students the opportunity to execute an independent thesis within the structure of a supervised studio devoted to the investigation of a specific program.

Course Goals & Objectives:
1. The master’s thesis should be the evidence of the graduate students’ ability to carry out independent investigation and to present the results in clear and systematic form.
2. Preparing a thesis assures students’ expertise in a chosen area of architecture and reinforces a systematic, critical approach to architectural design.
3. The Department of Architecture and Environmental Design offers two separate but equivalent ways for students to undertake their thesis investigations: The Design Option and the Research Option. Students should choose the option that best accommodates their goals and working methods.

Student Performance Criteria addressed:
C.3. Integrative Design
D.1. Stakeholder Roles in Architecture

Topical Outline (include percentage of time in course spent in each subject area):
• A comprehensive architectural design solution to given problem/project as selected by the student. (100%)

Prerequisites:
ARCH 6310

Textbook/Learning Resources:
Architectural and design periodicals
World wide web (i.e. U.S. Green Building Council, NCARB, AIA, UIA, etc.)

Offered (semester and year):
Spring

Faculty assigned:
Andreas Luescher (F/T)
Course Description:
Basic concepts of construction management and technology, building construction techniques, surveying, building materials, plan reading, and estimating.

Course Goals & Objectives:
- Students will acquire knowledge of basic residential and commercial construction materials and methods.
- Students will be introduced to construction estimating, math, safety, building regulations, and design.

Student Performance Criteria addressed:
B.8. Building Materials and Assemblies

Topical Outline (include percentage of time in course spent in each subject area):
- Construction Methodology (40%)
- Construction in Terminology (20%)
- Document Reading (40%)

Prerequisites:
None

Textbook/Learning Resources:

Offered (semester and year):
Fall, Spring

Faculty assigned:
Wilfred Roudebush (F/T)
Lisa Schaller (F/T)
Number & Title of Course (total credits awarded):
CONS 3360: Structural Design (3 credits)

Course Description:
Statics and strength of materials principals will be presented to provide the foundation to carry out basic structural design. The design portion of course will focus on floor framing members, columns and connections in steel and wood, as related to design codes.

Course Goals & Objectives:
- To teach the students the analytical process to determine how forces are directed through and affect the structural requirements of building components.
- To teach the students the design procedures used in sizing structural members utilizing steel as bar joists and timber.
- The ultimate goal is to arm the students with the analytical tools to remediate construction errors and omissions and design simple structural elements.

Student Performance Criteria addressed:
B.5. Structural Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Statics – forces 15%
- Statics – trusses 10%
- Statics – beams 25%
- Loading & Materials 10%
- Timber 30%
- Truss Competition 10%

Prerequisites:
PHYS 201 and matriculated in CM&T, AED or CM&T/AED Dual Major.

Textbook/Learning Resources:
Instructor will hand out copies of additional material that will supplement the text.

Offered (semester and year):
Fall, Spring

Faculty assigned:
Joseph N. Lavalette (F/T)
Number & Title of Course (total credits awarded):
CONS 3380: Steel, Masonry and Concrete Structures (3 credits)

Course Description:
Design of structural steel members and elements. Steel design will include beams, bar joists, columns, bolted connections, and metal decking. Design and specification of concrete structures. Concrete design of slabs, beams, footers, and columns. Design and specification of masonry elements focusing on CMU’s.

Course Goals & Objectives:
- To expose the students to construction standards, codes and details.
- To teach the students the design procedures used in sizing structural members utilizing steel, concrete and masonry units.
- The ultimate goal is to arm the students with the analytical tools to remediate construction errors and omissions and design simple structural elements.

Student Performance Criteria addressed:
B.5. Structural Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Structural steel 30%
- Concrete Design 30%
- Masonry Design 30%
- Guests/Field Trips 10%

Prerequisites:
CONS 3360 and Matriculated in CM&T, AED or CM&T/AED Dual Major.

Textbook/Learning Resources:
Instructor will hand out copies of additional material that will supplement the text.

Offered (semester and year):
Spring

Faculty assigned:
Joseph N. Lavalette (F/T)
Number & Title of Course (total credits awarded):
ARCH 2360: Mechanical and Electrical Building Systems I (3 credits)

Course Description:
Mechanical and electrical building systems including review of scientific principles used in system design. Topics include equipment description and selection, system types, system components, and basic design.

Course Goals & Objectives:
- Student will explore physical concepts and environmental concerns in relation to the function of mechanical systems.
- Student will explore standard mechanical systems technologies as well as sustainable / energy efficient technologies.
- Student will explore the aesthetic and operational effect of mechanical systems.

Student Performance Criteria addressed:
B.8. Environmental Systems
B.11. Building Service Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Sanitation Systems (20%)
- Thermal Systems (20%)
- Electrical Systems (20%)
- Illumination Systems (20%)
- Acoustics Systems (20%)

Prerequisites:
None

Textbook / Learning Resources:

Offered (semester and year):
Fall, Spring, Summer on demand

Faculty assigned:
Heidi Reger (P/T)
Number & Title of Course (total credits awarded):
ARCH 2710: Computer Aided Design for Architecture (3 credits)

Course Description:
Intermediate course emphasizing the role of 3D computer applications, including parametric modeling and Building Information Modeling in Architectural design, presentation, and professional practice.

Course Goals & Objectives:
- To assist students in developing an understanding of the role of computer aided design and related applications in Architectural design and practice.
- To assist students in developing skills in using computer applications as a medium for producing 2D and 3D architectural representations.
- To assist students in developing knowledge and skills related to the application of computer modeling, both CSG modeling and Building Information Modeling, in the architectural design process.

Student Performance Criteria addressed:
A.1. Professional Communication
B.4. Technical Documentation

Topical Outline (include percentage of time in course spent in each subject area):
- Solid Modeling / Mass Modeling (40%)
- Building Information Modeling (BIM) / Parametric Modeling (40%)
- Design and Graphic Presentation (20%)

Prerequisites:
ARCH 1050 & Arch 1100, or
2 years (2 units) high school CAD coursework with grade B or better

Textbook / Learning Resources:

Offered (semester and year):
Fall, Spring, Summer on demand

Faculty assigned:
Stan Guidera (F/T)
Payman Sadeghi (P/T)
Number & Title of Course (total credits awarded):
ARCH 3360: Architectural Materials & Systems (3 credits)

Course Description:
Materials technical properties and construction methods and systems, incorporating expressive and sustainable design objectives.

Course Goals & Objectives:
- Student will explore all forms of construction strategies, tactics and techniques.
- Student will also explore the fabrication processes and performance of various building materials including assemblies.
- Student will learn the impact of economic and environmental factors on the architect’s choice of construction materials.

Student Performance Criteria addressed:
B.4. Technical Communication
B.8. Building Materials and Assemblies

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (40%)
- Integrated Building Practices, Technical Skills and Knowledge (60%)

Prerequisites:
ARCH 2360 and junior standing

Textbook/Learning Resources:

Offered (semester and year):
Fall

Faculty assigned:
Andreas Luescher (F/T)
Number & Title of Course (total credits awarded):
ARCH 3370: Mechanical & Electrical Building Systems 2 (3 credits)

Course Description:
A laboratory course investigating applications of mechanical and electrical building systems. Analysis of existing systems, system design, system modeling and report writing. Topics include water and sanitary waste systems, electrical distribution systems, HVAC systems, and lighting design.

Course Goals & Objectives:
The course emphasizes the following student-oriented objectives:
• Developing design skills, including system planning and synthesizing. Among other things, this area covers calculations and the use of established data based on physical laws, standards, and codes.
• Gaining practical knowledge about systems by surveying and analyzing existing building systems and interacting with associated parties, such as engineers, architects, contractors, and owners.
• Refining communication and presentation skills in the area of system design and documentation through graphic, modeling, and written formats. A required portfolio submission also contributes to this objective.
• Training in technical and organizational decision making in group work and peer project reviews.

Student Performance Criteria addressed:
B.6. Environmental Systems
B.9. Building Service Systems

Topical Outline (include percentage of time in course spent in each subject area):
• Sanitation  20%
• Thermal    20%
• Electrical  20%
• Lighting    20%
• Sustainability  20%

Prerequisites:
ARCH 2360 and junior standing.

Textbook/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
Salim Elwazani (F/T)
Number & Title of Course (total credits awarded):
ARCH 6510: Sustainability Systems (3 credits)

Course Description:
This lecture/seminar course investigates the environmental, social, and economic dimensions of sustainability and reviews leading initiatives applications as relating to the building industry. Approaching sustainability as an interdisciplinary field undergoing fast-growing theories, standards, and applications, the course employs an existing built-environment of a manageable size as a laboratory for student analysis and assessment of sustainability systems.

Course Goals & Objectives:
The course emphasizes understanding and skill development objectives:

• Grasping sustainability theory and systems in their physical, environmental, and social dimensions.
• Understanding contexts and mechanisms for driving sustainability including standards, incentives, and mandates as well as leading agencies and organizations.
• Developing assessment skills for sustainability systems in a segment of the built-environment.
• Refining communication and collaboration skills through student group assignments that require planned contacts and consultation with external parties.

Student Performance Criteria addressed:
B.6. Environmental Systems
B.9. Building Service Systems

Topical Outline (include percentage of time in course spent in each subject area):

• Theory and systems 30%
• Context and mechanisms 30%
• Assessment and applications 40%

Prerequisites:
Graduate standing

Textbook/Learning Resources:

Offered (semester and year):
Fall

Faculty assigned:
Salim Elwazani (F/T)
Number & Title of Course (total credits awarded):
ARCH 6520: Advanced Structure and Materials Methods (3 credits)

Course Description:
Advanced structures and materials course covering an overview of design, and analysis of multiple structural systems in both steel and concrete, and related investigations into the implications of structural systems for material systems and architectural form. Topics include curtain wall support for lateral loads, truss systems, long-span and lightweight systems, tensile structures, thin shell concrete structures, non-load bearing and structural building envelopes, and structural/material integration.

Course Goals & Objectives:
- Regarding the fundamental function of structures: a) To understand structural system behavior in propagating gravity and lateral forces; b) To understand distinctions of structural systems of basic building materials
- Regarding the spatial role of structures: a) To explore attempts and paradigms of spatially integrative structural design at the conceptual phase; b) To perform spatially integrative structural design at the conceptual phase; c) To assimilate the holistic nature of structural design by probing the subsequent phases of preliminary and detail design phases
- Regarding material and assemblies in integrative design: To develop ability is selecting and applying material assemblies and elements to integrative structures

Student Performance Criteria addressed:
B.3. Codes and Regulations
B.5. Structural Systems

Topical Outline (include percentage of time in course spent in each subject area):
- Structural Review .................................. 10%
- Lateral Forces ..................................... 10%
- Long span and Lightweight systems ... 20%
- Curtain wall design principles ............. 20%
- Thin shell and tensile structures .......... 20%
- Structural envelopes ........................... 20%

Prerequisites:
Graduate Standing

Textbook/Learning Resources:

Offered (semester and year):
Fall and Spring

Faculty assigned:
Stan Guidera (F/T)
Erin Curley (P/T)
Number & Title of Course (total credits awarded):
ARCH 2330: History of Architecture 1 (3 credits)

Course Description:
Ancient and medieval Western architecture and traditional non-Western architecture in cultural, aesthetic, and technical aspects.

Course Goals & Objectives:
1. Basic knowledge of architectural history pertaining to both prominent and anonymous building sites and their builders across the world.
2. Identifying the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different traditions and cultures.
3. Writing clearly and effectively, articulating a subject, demonstrating reflection, employing critical thinking, and appropriate use of supporting argument and citation.
4. Understanding social responsibility and the sensibility of community by engaging and investigating Architecture-related topics in local context.

Student Performance Criteria addressed:
A.2. Investigative Skills
A.7. History and Global Culture

Topical Outline (include percentage of time in course spent in each subject area):
- General discussion on history of architecture (10%)
- Ancient and medieval Western architecture (50%)
- Traditional non-Western architecture (40%)

Prerequisites:
None

Textbook/Learning Resources:
Online: SAHARA, Avery Architectural Periodicals Index, and JSTOR
Media: Various featured movies and movie clips

Offered (semester and year):
Fall

Faculty assigned:
Kerry Fan (F/T)
Number & Title of Course (total credits awarded):
ARCH 2340 History of Architecture 2 (3 credits)

Course Description:
Western architecture from renaissance to present and recent developments in global Architecture in cultural, aesthetic, and technical aspects.

Course Goals & Objectives:
1. Basic knowledge of architectural history pertaining to both prominent and anonymous building sites and their builders across the world.
2. Identifying the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different traditions and cultures.
3. Writing clearly and effectively, articulating a subject, demonstrating reflection, employing critical thinking, and appropriate use of supporting argument and citation.
4. Understanding social responsibility and the sensibility of community by engaging and investigating Architecture-related topics in local context.

Student Performance Criteria addressed:
A.1. Professional Communication Skills
A.7. History and Global Culture

Topical Outline (include percentage of time in course spent in each subject area):
- General discussion on history of architecture (10%)
- Ancient and medieval Western architecture (50%)
- Traditional non-Western architecture (40%)

Prerequisites:
None

Textbook/Learning Resources:
Online: SAHARA, Avery Architectural Periodicals Index, and JSTOR Media: Various featured movies and movie clips

Offered (semester and year):
Spring

Faculty assigned:
Kerry Fan (F/T)
Number & Title of Course (total credits awarded):
ARCH 3310: Theory in Architectural Design (3 credits)

Course Description:
Lecture and panel discussion session on topics in Architectural design theory.

Course Goals & Objectives:
The purpose of this seminar is to develop an understanding of several topics in architectural design theory. The seminar concentrates on building form, a topic that has been explored substantially in architectural scholarship. The seminar will also address a few alternative views in the studies of architecture that complement the formalist approach. Discussions will be based on reading assignments and library research, in conjunction with studying images and texts on building artifacts.

Student Performance Criteria addressed:
A.8. Cultural Diversity and Social Equity
C.1. Research

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking and Representation (100%)

Prerequisites:
ARCH 2220, junior standing or permission of instructor

Textbook/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned:
Kerry Fan (F/T)
Sara Khorshidifard (F/T)
Number & Title of Course (total credits awarded):
ARTH 3630: History of Modern Architecture (3 credits)

Course Description:
Lectures on history of modern architecture.

Course Goals & Objectives:
- To critically examine modern architecture and its practices in their historical and global contexts
- To analyze how modern architectural history portrays societal values
- To connect creative and critical historical ideas to built interpretations
- To communicate clearly (verbally, visually and in writing) about the relationship of modern architecture to the writing of modern histories and the formation of modern societies

Student Performance Criteria addressed:
A.3. Investigative Skills
A.7. History and Global Cultures

Topical Outline (include percentage of time in course spent in each subject area):
- Critical Thinking, Representation and Writing (100%)

Prerequisites:
None

Textbook/Learning Resources:
**Required**

**Recommended**

Offered (semester and year):
Fall; Spring on a rotation every two years

Faculty assigned:
Katerina Ruedi Ray (F/T)
Andrew Hershberger (F/T)
Number & Title of Course (total credits awarded):
ARCH 6800: Seminar in Architecture and Design (3 credits)

Course Description:
Course addressing topics, trends, and developments in architecture and design, including theory, technology, and professional practice in the education of design professionals in architecture and allied fields.

Course Goals & Objectives:
- Identify client types and needs and developing approaches for advantageous working relationships
- Examining theories of leadership and leadership performance in diverse setting with particular focus on architecture and associated fields

Student Performance Criteria addressed:
C.1. Research

Topical Outline (include percentage of time in course spent in each subject area):
- Assignments / Projects (60%)
- Leadership and Practice (40%)
- Participation (10%)

Prerequisites:
Graduate standing

Textbook/Learning Resources:

Offered (semester and year)
Spring, Fall, Summer

Faculty assigned:
Kerry Fan (F/T)
Number & Title of Course (total credits awarded):
ARCH 6610: Professional Practice and Entrepreneurship (3 credits)

Course Description:
Essential course framework focuses on issues of Professional Practice of Architecture related to the field of Entrepreneurship are discussed and studied in depth. Topics include firm organizational models, innovative business and marketing concepts, legal and ethical implications pertaining to firms, traditional and non–traditional office/company models as well as creative start up business techniques and project delivery methodology.

Course Goals & Objectives:
1. Primary course goal is to have student understand relationship between the practice of Architecture and Entrepreneurship.
2. Understanding business goals of Architectural firms that have innovative entrepreneurial practices through case studies and firm / individual interviews.
3. Create an innovative business plan based on applied research as well as theory based research.

Student Performance Criteria addressed:
D.1. Stakeholder Role in Architecture
D.4. Legal Responsibilities
D.5. Professional Conduct

Topical Outline (include percentage of time in course spent in each subject area):
- Students will perform work with their advisor to plan scope of work in conjunction with schedule. (20%)
- Students will perform applied research as well as theory based research. (80%)

Prerequisite
None

Textbook/Learning Resources:

Offered (semester and year):
Fall

Faculty assigned:
Jim Turissini (P/T)
Number & Title of Course (total credits awarded):
ARCH 6620: Business Innovation by Design (3 credits)

Course Description:
This course explores the intersection of business and design, moving beyond form and function, design thinking, and transforming experiences and organizations as they affect practice. It recognizes the importance of the relationship between architecture and management, specifically offers opportunity for students in Architecture and Business Administration to be involved in a joint venture.

Course Goals & Objectives:
- The primary goal of this course to provide student with the opportunity to explore, research, and report on specific design projects that resulted in an innovative design solutions throughout the world.
- Analyze the sustainability and ecology benefits and attributes of the specific design projects involving processes, practices and operations.
- Explain the role played by each of the key parties involved in the decision-making on specific design project(s).

Student Performance Criteria addressed:
B.10. Financial Consideration
D.2. Project Management

Topical Outline (include percentage of time in course spent in each subject area):
- The building team (10%)
- Pre-Design Analysis (20%)
- Design Development (30%)
- Understanding Sustainability and Ecology (20%)
- Project delivery and management (20%)

Prerequisites:
None

Textbook/Learning Resources:
Architectural and design periodicals
World wide web (i.e. U.S. Green Building Council, Design for Business Innovation, etc.)

Offered (semester and year):
Spring

Faculty assigned:
Andreas Luescher (F/T)
Jim Turissini (P/T)
Number & Title of Course (total credits awarded):
ARCH 6630: Applied Entrepreneurship (1 credit)

Course Description:
This practical course allows graduate students the opportunity to engage architecture and design directly in the professional field. Learning occurs through both theory and active involvement in design-build project, design fabrications and/or similar settings.

Course Goals & Objectives:
- The primary goal of this course is to interface students with the Northwest Ohio Architecture, Engineering and Construction Association.
- Create a management plan for an independent investigation.
- Synthesize reading and application of knowledge to a research-driven project.
- Produce an applied design or research solution with the professional field.

Student Performance Criteria addressed:

Topical Outline (include percentage of time in course spent in each subject area):
- Student will work in conjunction with her/his advisor to plan scope of work and reasonable schedule. (10%)
- Student will perform applied entrepreneurship in the professional field. (90%)

Prerequisites:
ARCH 6620

Textbook/Learning Resources:
Architectural and design periodicals
World wide web (i.e. U.S. Green Building Council, Design for Business Innovation, etc.)

Offered (semester and year):
Fall, Spring, Summer

Faculty assigned:
Salim Elwazani (F/T)