

DIVISION OF ARCHITECTURE

Architecture Building, Room 103
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<http://www.arch.andrews.edu>

Faculty

_____, *Division Administrator*

Cognate Requirements—6

ART104, 207.

Minor Requirements—22**General Electives—5****Total credits for the BS degree—124-127****Minor in Architectural Studies—22**

ARCH125, 126, 150; plus 12 additional credits with a minimum of 6 upper division credits from courses with ARCH acronyms.

Courses**(Credits)**

See inside front cover for symbol code.

ARCH125**(3)*****Introduction to Design Studio***Introduction to formal composition, abstract architectural elements, and traditional architectural proportioning systems and presentation techniques. *Fall, Summer***ARCH126****(5)*****Drawing and Graphics Studio***Introduction to freehand drawing and architectural drawing graphic conventions. Exercises include freehand and drafted drawings of building plans, sections, and elevations, and an introduction to 3-dimensional representation. *Spring, Summer***ARCH150****(2)*****Introduction to Architecture***Emphasis on design concepts, professional vocabulary, historical appreciation, contemporary issues, and values that are important to the mission of the Division of Architecture. Open to all students. *Fall***ARCH201****(3)*****Construction I***An overview of structural systems and a qualitative analysis of the flow of forces in buildings. Construction materials and assemblies, detailing, and material selection. Includes soil, concrete, masonry, metals, and wood. *Fall***ARCH202****(3)*****Construction II***Weatherproofing, finish materials, and detailing in construction. System and component selection and introduction to cost estimating. Prerequisite: ARCH201. *Spring***ARCH205, 305, 405****(4, 2, 2)*****Structures I, II, III***Topics in statics, strength, of materials, structural analysis, and design in reinforced concrete, steel, and wood. Wind and seismic loading. Prerequisites: MATH168 & PHYS115; ARCH205 is a prerequisite to ARCH305; ARCH305 is a prerequisite to ARCH405. *Spring***ARCH230****(3)*****Surveying***

Introduction to measurement and error theory. Plane and topographic surveys, horizontal and vertical control, earthwork computations. Basic principles of photo-grammetry. Prerequisite: secondary-school trigonometry. May not be offered each year.

ARCH241**(5)*****Placemaking Studio***Introduction to building design as it relates to landscape and to human nature, in simple program projects. Prerequisite: ARCH126. *Fall***ARCH242****(5)*****Architecture as Craft Studio***Design projects focusing on the materiality of architecture and the logic of construction. Prerequisites: ARCH241 & meet general education requirement for computer competence. *Spring***ARCH245****(4)*****Visual Studies in European Architecture***

Students in sketch and/or photographic format study the visual qualities of various buildings of architectural significance in Europe. The visual study is accompanied by historical and analytical examination of the buildings and architects. Prerequisites: ARCH242 and acceptance to the European Office Practicum.

ARCH284**(3)*****Architectural Rendering***

Demonstrations and exercises to deepen students' understanding of the communication process, increase familiarity with different expressive forms of graphic art, and further advance skills in the use of different media. Prerequisites: ARCH126 and minimum junior standing or permission of the instructor. May not be offered each year.

ARCH299**(1-4)*****Independent Study***

Study of special topics not currently offered by the Division of Architecture. In consultation with a professor, the student researches a selected area, filing a copy of the completed project report in the Division of Architecture office. A minimum of 30 hours of work required for each credit. May be repeated for a total of 6 credits.

ARCH315**(3)*****History of Architecture I***Chronological overview of the history of architecture from pre-history through the 14th century (Gothic). Emphasis is on the vocabulary and design of buildings, their symbolic relationships, and their meaning in a cultural and human context. Prerequisites: HIST117, 118 & ENGL115. *Fall***ARCH316****(3)*****History of Architecture II***Chronological overview of the history of architecture from the 15th century (Renaissance) to today. Emphasis is on the vocabulary and design of buildings, their symbolic relationships, and their meaning in a cultural and human context. Prerequisites: HIST117, 118 & ENGL115. *Spring***ARCH321****(5)*****Sustainable Design Studio***Studio design projects based on the concept of sustainability, using building materials and construction methods to achieve resource-efficient buildings. Prerequisites: ARCH242 and acceptance to the Professional Degree Program. *Fall***ARCH322****(5)*****Background Building Studio***

Design of a commercial and/or residential building(s) of increased programmatic complexity, in the physical and cultural setting of a

traditional small town or urban neighborhood. Prerequisites: ARCH242 and acceptance to the Professional Degree program. *Spring*

ARCH330 (3-6)
Analytical Summer Abroad

A course focusing upon study, analysis, and documentation of buildings, spaces, and/or gardens in another country. Studies will occur in a “base” city, with day trips to other sites. Base venue may change from year to year. Prerequisite: ARCH242. *Summer*

ARCH335 (4)
Environmental Technology I

Introduction to environmentally, energy-conscious design concepts with the primary focus on climate and site analysis. An overview of standard evaluation methods for thermal performance in both design development and qualitative building evaluations covers heat loss/gain, thermal and solar envelope, HVAC system selection and layout. Principles of water conservation, collection and supply, and the treatment and disposal of liquid and solid wastes. *Fall*

ARCH336 (4)
Environmental Technology II

Principles of design for fire safety and code compliance. Principles of electricity and a brief survey of electrical systems and wiring design. The design and location requirements of elevators and moving stairways and walks. A qualitative over-view of lighting and acoustics and their integration into the design of buildings with introductory quantitative methods. Prerequisite: PHYS115. *Spring*

ARCH350 (3-6)
Architectural Design

Studio with topics and projects appropriate to the major or minor in architectural studies. May be repeated up to total of 8 credits. Prerequisite: ARCH242. May not be offered each year.

ARCH360/560 (2-3)
Islamic Architecture

A focused view on the period of architectural history known as Islamic Architecture. Covers the beginnings of Islamic period from 600 CE down to the present time, looking at Islamic buildings from all parts of the world. Prerequisite: ARCH315 & 316.

ARCH365 (2-3)
Issues in Contemporary Architecture

Lectures, readings, visits with architects and to architectural sites. Topics include current architectural developments in the western world. May be offered as part of European Architecture tour or off-campus summer session. Prerequisites: ARCH315 & 316. May not be offered each year.

ARCH370 (3)
Person-Environment Theory

Studies in the relationship between people and the environment, including a consideration of towns, cities, gardens, buildings, and artifacts, as well as the cultural and natural landscape. Prerequisite: ARCH241.

ARCH390/590 (1-4)
Special Topics in _____

Based on selected topics of current interest in architecture offered by the Division of Architecture. May be repeated in different topic areas. May not be offered each year.

ARCH395 (2-6)
Community Project in Architecture

“Hands-on” involvement in humanitarian and/ or service oriented projects. Work initiated by students requires prior approval of faculty. Graded on S/U basis. May be repeated for up to 6 credits.

ARCH396 (1-6)
Cooperative Work Experience

Supervised work with an architecture or construction firm. 120 hours of work is required for each credit. May be repeated up to 6 credits. Prerequisites: 3rd year standing and application one semester in advance of the planned work. Graded on S/U basis.

ARCH415/515 (1-4)
Design Studio Practicum

Students assist studio teachers in design courses as critics. The course is open to students interested in teaching and architectural criticism and who are chosen by the Division faculty for demonstrable potential in this area.

ARCH420 (2-4)
European Office Practicum

Offered during summers in Berlin, Germany, or other European locations. Students spend at least four weeks in architectural offices where they participate on actual projects. Prerequisites: ARCH242 and acceptance to European Office Practicum. Graded on S/U basis.

ARCH434 (4)
Urban Studies

A broad survey, both typological and historical, of the physical characteristics of cities and their development, with an emphasis upon urban form as a cooperative human artifact embodying particular cultural values and ideas. Prerequisites: ENGL115; HIST117, 118. *Fall*

ARCH441 (6)
Foreground Building Studio

Design of a public and/or civic building in the physical and cultural setting of a traditional small town or urban neighborhood. Prerequisite: ARCH322; Corequisite: ARCH449. *Fall*

ARCH442 (6)
Integrative Design Studio

Comprehensive building design project: site design, building design, and development of architectural detail (including integration of materials and structural and environmental systems). Prerequisite: ARCH441. *Spring*

ARCH449 (3)
Integrative Design

Preliminary design of the structure and environmental control systems for a concurrent studio project. Building codes, accessibility standards, and zoning ordinances are reviewed for design implications. Corequisite: ARCH441. *Fall*

ARCH459 (3)
Design Theory

A survey and analysis of architectural thought, including readings from both historical and contemporary sources. Prerequisite: ARCH315.

ARCH495 (1-4)
Inspection Field Trip

An organized trip to areas of significant architectural interest and

individual reports thereon. May be repeated for up to 6 credits.
May not be offered each year.

ARCH499/599 (1-4)

Independent Research

Study of special topics not currently offered by the Division of Architecture. In consultation with a professor, the student researches a selected area, filing a copy of the completed project report in the Division of Architecture office. A minimum of 30 hours of work required for each credit. May be repeated for a total of 6 credits. May not be offered each year.

ARCH510 (3)

Advanced Structures Seminar

A consideration of topics in structural analysis and design as they relate to the Architecture Review Examination. Graded on S/U basis. Prerequisite: ARCH305 or equivalent. May not be offered each year.

ARCH521 (6)

Urban Design Studio

Urban design proposal for a small town (or parts thereof), urban neighborhood, or college campus. Prerequisites: ARCH350 and 442. *Fall*

ARCH522 (6)

Visiting Critic/Topic Studio

Design project(s) to be determined by Visiting Critic and regular faculty. Topic of studio varies. Prerequisite: ARCH521. *Spring*

ARCH535 (4)

Professional Practice

Lectures and seminars focusing on Judeo-Christian values and social responsibilities in the profession. Studies introduce conventional practice methods and career planning for present and future. Topical areas include the role of the architect, organization and management of the firm, and project administration.