

# Architecture (ARCH)

## Courses

### ARCH 002 History of Architecture 4 Credits

Survey of architecture from the Renaissance to the present, examined in the context of culture formation, design concepts, and the built environment.

**Attribute/Distribution:** HE, HU

### ARCH 010 (CEE 010) Engineering/Architectural Graphics and Design 0,3 Credits

Graphical communication of civil engineering or architectural projects using manual techniques and commercial state-of-the-art computer software. Topics include visualization and sketching; orthographic, isometric and other drawings; points, lines and planes in descriptive geometry; site design; overview of geographical information systems and 3D applications. Teamwork on design projects with oral and graphical presentations. Open to a limited number of architecture, design arts or other students with project roles consistent with students' background. Not available to students who have taken MECH 10.

**Attribute/Distribution:** AL

### ARCH 034 Digital Drawing and 3D Modeling 4 Credits

In our increasingly visual world we often need to present ideas in realistic, expressive, and engaging ways. This introductory course presents the basics of digital drawing and rendering through the lens of architecture, but is intended for students of all disciplines interested in visual communication. This project-based course focuses on the essentials of AutoCAD, SketchUp, and Revit supplemented with V-Ray and Photoshop for rendering.

**Attribute/Distribution:** AL, HU

### ARCH 043 Architectural Design I 4 Credits

Fundamental design studio for architecture majors. Composition, spatial concepts; precedent; materials and detail; light and color in architecture. Instruction in basic communication techniques.

**Prerequisites:** ART 004 or ARCH 034

**Can be taken Concurrently:** ART 004, ARCH 034

**Attribute/Distribution:** AL, HU

### ARCH 071 Special Topics in Architecture 1-4 Credits

Directed projects for students in architecture. Student must initiate contact with sponsoring professor. Permission of Instructor required.

**Repeat Status:** Course may be repeated.

**Attribute/Distribution:** HU

### ARCH 123 Visualization and Fabrication in Architecture 4 Credits

This course concentrates on visualization and fabrication in architecture. Students are introduced to advanced architectural diagramming and model-making as well as conventional and digital representation skills. This course investigates architectural graphics as an active means of communication and as a generative element in organizing architectural space. Precedents and examples are extensively researched. All exercises are designed to enhance students' ability to imagine and visualize complex architectural forms and spaces. Various architectural materials are employed and tested.

**Attribute/Distribution:** AL, HU

### ARCH 126 (ART 126, THTR 126) History of Interior Design and Decor 4 Credits

Survey of architectural interiors and décor examining public and domestic spaces and their contents in terms of period and style. Exploration of major art and design movements through the lens of interior spaces and objects within the context of culture and society.

**Attribute/Distribution:** CC, HE, HU

### ARCH 143 Architectural Design II 4 Credits

Studio format, introductory course in architectural design which introduces students to new ways of thinking about architecture and the perception of space, three-dimensional composition, drawing, and model-making.

**Prerequisites:** ARCH 043

**Attribute/Distribution:** HU

### ARCH 157 Architectural Technology I 4 Credits

The two-course sequence (ARCH 157 & ARCH 158) introduces the use of building materials, components and systems (slabs, walls, trusses, facade systems, etc.) while providing students with the knowledge to design and construct comfortable, technically sound and aesthetically pleasing buildings. Recommended to be taken concurrently with ARCH 143.

**Attribute/Distribution:** CC, HU, Q

### ARCH 158 Architectural Technology II 4 Credits

The two-course sequence (ARCH 157 & ARCH 158) introduces the use of building materials, components and systems (slabs, walls, trusses, facade systems, etc.) while providing students with the knowledge to design and construct comfortable, technically sound and aesthetically pleasing buildings. Recommended to be taken concurrently with ARCH 243.

**Attribute/Distribution:** CC, HU, Q

### ARCH 159 Modern History and Sustainable Architecture in Munich 3 Credits

This Lehigh faculty-led study abroad program allows students from an array of majors to earn three credits over winter break. The program will explore the history, culture, and architecture of Munich, a capital and center of the southern state of Germany, Bavaria. The program of study does not require German language skills. Fulfills an history/theory elective requirement for the BA in Architecture major.

**Attribute/Distribution:** AL, CC, HU

### ARCH 171 Special Topics in Architecture 1-4 Credits

Directed projects for students in architecture. Student must initiate contact with sponsoring professor. Must have major standing in department and/or consent of instructor.

**Repeat Status:** Course may be repeated.

**Attribute/Distribution:** HU

### ARCH 176 (ANTH 176, ART 176, CLSS 176) Roman Archaeology 4 Credits

Cultures of the Roman Empire. Reconstructions of social, political, and economic dynamics of the imperial system from study of artifacts.

**Attribute/Distribution:** SS

### ARCH 184 (GS 184, HIST 184) Paris: The Global City 3 Credits

An overview of the development of the city of Paris from its origins as an outpost on the far reaches of the Roman Empire to its rise as capital of medieval Christendom, from seat of Absolute Monarchy to birthplace of modern revolutions, resistance and occupation in the era of world wars, and model of modern urban planning in the 19th, 20th and 21st centuries. Focus is on the way global contexts shaped social and political life at the local level.

**Attribute/Distribution:** CC, HE, HU

### ARCH 210 20th Century Architecture 4 Credits

History and theories of modern and contemporary architecture. Analysis of buildings, architects, theories and manifestos from the early 20th century to the present.

**Prerequisites:** ART 001

**Attribute/Distribution:** HU, W

### ARCH 211 Architectural Drawing/Analysis and Expressions 3 Credits

This studio course is part of the Lehigh in Italy summer program and will utilize several different architectural drawing techniques to study aspects of architecture from analysis of a piazza to architecture in detail. It will employ pencil sketching, charcoal drawing, and watercolor. These drawings will act as a way of seeing the Italian urban landscape and supplement the study and analysis of the Italian architects' contemporary work. Fulfills an art studio elective requirement.

**Attribute/Distribution:** AL, HU

### ARCH 243 Architectural Design III 4 Credits

Design principles of space and form and issues of "materiality," "structure," "modes of representation" and the "process of making."

**Prerequisites:** ARCH 143

**Attribute/Distribution:** HU

**ARCH 271 Special Topics in Architecture 1-4 Credits**

Directed projects for advanced students in architecture or architectural criticism. Must have major standing in the department or permission of the instructor. Student must contact sponsoring professor and complete a contract sheet at preregistration.

**Repeat Status:** Course may be repeated.

**Attribute/Distribution:** HU, Q, W

**ARCH 300 Apprentice Teaching 1-4 Credits**

Supervised participation in various aspects of the teaching of a course. Transcript will identify department in which apprentice teaching was performed. Consent of department chair required. The transcript will reflect the subject area in which the teaching was done.

**Repeat Status:** Course may be repeated.

**ARCH 311 Architectural Portfolio 4 Credits**

The course will aid students in the concept, layout, and preparation of a portfolio for graduate school application or employment search. Graphic techniques and reproduction methods will be emphasized via software workshops and weekly feedback. Recommended to be taken with ARCH 343. Non-architecture majors interested in taking the course should contact the instructor.

**Repeat Status:** Course may be repeated.

**Prerequisites:** ARCH 243

**Can be taken Concurrently:** ARCH 243

**Attribute/Distribution:** HU

**ARCH 335 Issues in Contemporary Architecture 4 Credits**

Seminar on selective architectural topics from the 1960s to the present. Analysis of important architectural projects and theories. Interaction among architecture and social, economic, political and technological changes.

**Prerequisites:** ART 001 and ARCH 002

**Attribute/Distribution:** HU

**ARCH 342 Theory of Form and Materials 4 Credits**

Study of the genesis of form, its representation and its interrelationship to related artistic disciplines. Formal notions will be studied, compared and manipulated through the role of time, scale, perceptual analysis and material transformation. Consent of instructor required.

**Attribute/Distribution:** HU

**ARCH 343 Architectural Design IV 4 Credits**

The design of buildings and building groups, with the emphasis on urban design and the city.

**Prerequisites:** ARCH 143

**Attribute/Distribution:** HU

**ARCH 375 Architecture Internship 1-4 Credits**

Practical infield experience in the professional setting. Requires approval of instructor and host prior to beginning of the term, with a memorandum of understanding outlining student work responsibilities and educational objectives for the experience.

**Repeat Status:** Course may be repeated.

**ARCH 389 Honors Project 1-8 Credits**

Opportunity for undergraduate majors in Architecture to pursue an extended project for departmental honors. Department permission required.

**Repeat Status:** Course may be repeated.

**Attribute/Distribution:** Q, W