Architecture (ARCH)

Courses

ARCH 002 Architectural History II 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: HU

ARCH 010 (CEE 010) Engineering/Architectural Graphics and Design 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: ND

ARCH 033 Architectural Drawing 4 Credits
Introduction to architectural hand drawing including orthographic, paraline, and perspective drawing types. Studio course.
Attribute/Distribution: ND

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. Reserved for declared Architecture majors.
Prerequisites: ART 004
Attribute/Distribution: ND

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: ND

ARCH 107 History of American Architecture 4 Credits
Survey of American building from European colonization to the present.
Prerequisites: ART 001 and ARCH 002
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 medium 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. Digital fabrication is employed to explore the potential of new materials and techniques. At the end of the semester, students are expected to think and work within conventional and new media. Students are also required to submit an advanced portfolio with refined drawings and models. Consent of instructor required.
Attribute/Distribution: ND

ARCH 134 Architecture and Urbanism of New York City 4 Credits
This course deals with the architecture and urbanism of New York City. It focuses on the twentieth century and occasionally covers other historical periods as well. With the direction of the instructor, students visit and analyze, formally and historically, important structures and places of the city such as museums, transportation hubs, offices, parks and other landmarks of interest. Cultural and sociological as well as architectural readings are offered and discussed. There are six mandatory field trips to New York City led by the instructor. Consent of instructor required.
Attribute/Distribution: 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. Previous or concurrent courses in studio art and/or architectural history are recommended.
Prerequisites: ARCH 043
Attribute/Distribution: ND

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. Must have declared architecture major.

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. Must have declared architecture major.
Attribute/Distribution: ND

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.
Attribute/Distribution: HU, SS

ARCH 161 (THTR 161) Performing Arts Venue Design and Technology 4 Credits
Designing theatres. Theatre equipment systems and acoustics. Function and form.
Attribute/Distribution: 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: ND

ARCH 174 (ANTH 174, ART 174, CLSS 174) Greek Archaeology 4 Credits
Ancient Greek cultures from the neolithic to hellenistic periods. Reconstructions of Greek social dynamics from study of artifacts.
Attribute/Distribution: SS

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 187 Synthetic Space 4 Credits
This course addresses formal concerns in contemporary architecture. Synthetic space exists between the actual and the virtual, between the analogue and the digital. The course will be a pure exploration of the possibilities of space, through animation and creative model making and deployment of parametric modeling software, film sets and motion graphics. Software tutorials will be given as needed. Must have declared architecture major or consent of instructor required.
Attribute/Distribution: ND

ARCH 209 Architecture and Ideas 4 Credits
Examination of philosophical, technological, and cultural forces shaping Western architecture and urbanism. Writing intensive.
Prerequisites: ART 001 and ARCH 002
Attribute/Distribution: 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

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: ND

ARCH 212 The Architecture of Carlos Scarpa/Theory and Practice 3 Credits
This course which is part of the Lehigh in Italy summer program will survey several of the Venetian architect’s most famous works. Meet with architects who worked with Scarpa and completed his unfinished projects. Explore thematic principles behind Scarpa’s work, their origin and role in his unique process of design.
Attribute/Distribution: HU

ARCH 213 Modern Architecture in France: New Directions 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 214 Architecture and the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 215 Architectural Design III 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 216 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: ND

ARCH 217 The Architecture of Carlos Scarpa/Theory and Practice 3 Credits
This course which is part of the Lehigh in Italy summer program will survey several of the Venetian architect’s most famous works. Meet with architects who worked with Scarpa and completed his unfinished projects. Explore thematic principles behind Scarpa’s work, their origin and role in his unique process of design.
Attribute/Distribution: HU

ARCH 218 Modern Architecture in France: New Directions 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 220 Modern Architecture in France 4 Credits
The splendor of modern Paris is due in large part to bold, large-scale modernization and changes in the city’s patterns during the 19th century. This course, which is part of the Lehigh in Paris summer program, will cover a century of change and focus on the major accomplishments of its visionary planners.
Attribute/Distribution: HU

ARCH 221 Architecture of the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 222 Architectural Design III 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 223 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: ND

ARCH 224 Modern Architecture in France 4 Credits
The splendor of modern Paris is due in large part to bold, large-scale modernization and changes in the city’s patterns during the 19th century. This course, which is part of the Lehigh in Paris summer program, will cover a century of change and focus on the major accomplishments of its visionary planners.
Attribute/Distribution: HU

ARCH 225 Architecture of the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 226 Architectural Design III 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 227 Architecture of the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 228 Architectural Design III 4 Credits
Continuation of ARCH 143. Design principles of space and form stressed in earlier studios to issues of “materiality,” “structure,” “modes of representation” and the “process of making.”
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 229 Architecture of the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU

ARCH 230 Architecture of the City since WWII 4 Credits
Architectural and urban theories and projects from 1945 to the present. Analysis of the relationship between architecture and the city.
Prerequisites: ARCH 002 or ART 002
Attribute/Distribution: HU