

# Architecture (ARCH)

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## **ARCH 231. Architectural Drawing. 3 Credits.**

Instruction in traditional (non-digital) representation of architectural designs: elevations, plans, sections, perspectives. Practice with presentation techniques. Prereq: Admission into the second year of the Architecture or Landscape Architecture program.

## **ARCH 232. Design Technology. 3 Credits.**

Introductory exploration of digital design media and environmental technology in architecture and landscape architecture. Prereq or Co-req: ARCH 271 or LA 271.

## **ARCH 233. Math for Designers. 1 Credit.**

Elementary investigations and applied learning activities focused on mathematical influences on architecture through history, proportioning, geometric modeling, trigonometric identities, fractals, algorithms, and parametric modeling. Prereq: Admission into the second year of the Architecture or Landscape Architecture program.

## **ARCH 271. Architectural Design I. 6 Credits.**

Studio course focused on beginning exercises in basic design, incorporating abstract two-dimensional design, functional response to environmental determinants, the articulation of form, spatial organization, and aesthetic judgment. Prereq: . Admission into second year of program.

## **ARCH 272. Architectural Design II. 6 Credits.**

Studio course focused on exercises in basic design incorporating abstract two-dimensional design, functional response to environmental determinants, the articulation of form, spatial organization, and aesthetic judgment. Prereq: ARCH 271.

## **ARCH 321. History and Theory of Architecture I. 3 Credits.**

History and theory of architecture from ancient times through the Renaissance with attention placed on the design connections across cultures and across the globe. Lecture course.

## **ARCH 322. History of Architecture II. 3 Credits.**

History of architecture from the Baroque to the present placing within a global perspective. Lecture course.

## **ARCH 323. History and Theory of Architecture III. 3 Credits.**

History and theory of architecture from the mid-range of modernism to the contemporary, exploring different movements, methods, and ideas, including global and vernacular influences. Prereq: Admission into the second year of the Architecture or Landscape Architecture program.

## **ARCH 341. Site Design for Architects. 3 Credits.**

Intermediate investigations and applied learning activities directed towards understanding building site inventory, analysis, and appropriate design responses. Prereq: ARCH 272.

## **ARCH 344. Architectural Structures I. 3 Credits.**

Overview of the principles of statics and mechanics of materials and structural concepts relative to building members and frames. Prereq: ARCH 271 and admission to the professional program.

## **ARCH 351. Materials & Construction. 4 Credits.**

Study of building materials from source through manufacture, focusing on their contribution to design and the study of the assembly processes of construction. Lecture course. Prereq: ARCH 272.

## **ARCH 371. Architectural Design III. 6 Credits.**

Studio courses providing intermediate level exercises in architectural design; responding to contextual, cultural, environmental, climatic, technological, and aesthetic determinants. Prereq: ARCH 272.

## **ARCH 372. Architectural Design IV. 6 Credits.**

Studio course continuing intermediate level exercises in architectural design: responding to contextual, cultural, environmental, climatic, technological, and aesthetic determinants. Prereq: ARCH 371.

## **ARCH 443. Architectural Structures II. 3 Credits.**

Overview of the principles of statics and mechanics of materials and structural concepts relative to building members and frames. Prereq: ARCH 344, ARCH 372.

## **ARCH 450. Architectural Detailing. 3 Credits.**

Study of wood, steel, masonry, and concrete construction assemblies through architectural detailing, with an introduction to specifications and construction documents. Prereq: ARCH 371.

## **ARCH 453. Environmental Control Systems: Passive Principles. 3 Credits.**

Study of architectural design related to thermal comfort, climate, passive solar systems, daylighting, acoustics, and other environmental concerns. Prereq: ARCH 272.

## **ARCH 454. Environmental Control System: Active System. 3 Credits.**

Study of the basic fundamentals of illumination and basic power generation, distribution and service; heating, ventilation, and air-conditioning systems; plumbing systems; and acoustics as they relate to building design. Prereq: ARCH 371, 453.

**ARCH 461. Urban Design. 3 Credits.**

Study of urban form and urban theory, development, and processes in a historic and contemporary context. Prereq: ARCH 371 or LA 371.

**ARCH 471. Architectural Design V. 6 Credits.**

Studio courses involving the complex organization of architectural spaces and forms in an urban context. Prereq: ARCH 372.

**ARCH 472. Architectural Design VI. 6 Credits.**

Studio courses involving the complex organization of architectural spaces and forms in an urban context. Prereq: ARCH 471.

**ARCH 474. International Design Studio. 6 Credits.**

Comprehensive design studio experience in advanced architectural studies to be conducted in culturally diverse, international locations. Prereq: ARCH 471.

**ARCH 475. Design Build Studio. 6 Credits.**

Studio course resulting in completed small-scale construction project. This course may be repeated for credit. (Also offered for graduate credit - see ARCH 675.).

**ARCH 675. Design Build Studio. 6 Credits.**

Studio course resulting in completed small-scale construction project. This course may be repeated for credit. (Also offered for undergraduate credit - see ARCH 475.).

**ARCH 721. Non-Western Architectural Traditions. 3 Credits.**

Advanced course on the investigation of design methods and building traditions of non-Western cultures and diverse geographic regions. May be repeated.

**ARCH 722. Urbanism. 3 Credits.**

Advanced course to explore in-depth aspects of urban design. May be repeated.

**ARCH 723. Historic Preservation. 3 Credits.**

Advanced course to explore the philosophy and techniques of preserving historic buildings. May be repeated.

**ARCH 724. Architectural Technology. 3 Credits.**

Advanced course to explore the historical and theoretical underpinnings of architectural technology. May be repeated.

**ARCH 725. Architecture or the Recent Past. 3 Credits.**

Advanced course to explore the major architectural movements and personalities since the mid-20th century. May be repeated.

**ARCH 726. Current Architectural Theory. 3 Credits.**

Advanced course focused on current issues and the work and design theory of leading architectural practitioners around the world. May be repeated.

**ARCH 727. Vernacular Architectural Traditions. 3 Credits.**

Advanced course to explore vernacular architectural traditions in North America and elsewhere. May be repeated.

**ARCH 728. Sociocultural Issues. 3 Credits.**

Advanced course focused on the social issues and movements that have influenced environmental design. May be repeated.

**ARCH 763. Programming/Thesis Prep. 3 Credits.**

Discussion and application of a comprehensive design process for production of the design thesis. Emphasis on preparing a design program.

**ARCH 771. Advanced Architectural Design. 6 Credits.**

Advanced studio course addressing complex design problems requiring increased self-direction.

**ARCH 772. Design Thesis. 8 Credits.**

Advanced studio course devoted to the execution of a comprehensive design thesis project, from schematic design through design development, presentation, and review. Prereq: ARCH 663, ARCH 771.

**ARCH 781. Professional Practice. 3 Credits.**

Study of contemporary architectural practice covering professional development, firm organization, and project management within the context of the ethical, legal, and regulatory environment. Cross-listed with LA 581.

**ARCH 789. Professional Topics in Architecture. 3 Credits.**

Various topics related to theoretical or methodological aspects of architecture as a professional discipline. May be repeated.