

ARCHITECTURE (ARCH)

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ARCH Courses

ARCH 1101 Architectural Design I (4 units)

Term Typically Offered: F

Prerequisite: Architecture major or Architectural Engineering major. Corequisite: ARCH 101 or ARCH 1131.

Introduction to the issues, concepts, processes, and skills pertaining to two- and three-dimensional design and visual communication of objects and forms. Course may be offered in classroom-based or hybrid format. 1 lecture, 3 laboratories. Formerly ARCH 131.

ARCH 1102 Architectural Design II (4 units)

Term Typically Offered: SP

Prerequisite: ARCH 131 or ARCH 1101. Corequisite: ARCH 133 or ARCH 1132.

Second part of a multipart sequence in Architectural Design. Concepts, processes, and skills pertaining to the analysis, design, and visual communication of architectural forms, spaces, and sites. Field trip may be required. Course may be offered in classroom-based or hybrid format. 1 lecture, 3 laboratories. Formerly ARCH 132.

ARCH 1121 Equity, Social Justice, and Architecture (3 units)

Term Typically Offered: F, SP

2026-28 or later catalog: GE Area 4B

2020-26 catalogs: GE Area D2

Introduction to issues of diversity, equity, inclusion, and social justice in architecture and the built environment. Historical and contemporary examples of how race, ethnicity, gender, sexual orientation, class, wealth, ability, and other characteristics relate to the design, construction, use, and meaning of buildings and spaces. Course may be offered in classroom-based or online format. 3 lectures. Fulfills GE Area 4B (GE Area D2 for students on the 2020-26 catalogs).

ARCH 1131 Architectural Representation I (2 units)

Term Typically Offered: F

Prerequisite: One of the following: Architecture major, Architectural Engineering major, or Architecture minor.

Introduction to the history, theory, and practice of two- and three-dimensional graphic and physical representations of objects and environments. Critical interpretation and creation of drawings and models. Concepts include orthographic, axonometric, and oblique drawing. Course may be offered in classroom-based or hybrid format. 1 lecture, 1 activity. Formerly ARCH 101.

ARCH 1132 Architectural Representation II (2 units)

Term Typically Offered: SP

Prerequisite: ARCH 131 or ARCH 1101.

Second part of a multipart sequence in Architectural Representation. Introduction to the history, theory, and practice of two- and three-dimensional graphic and physical representations of objects and environments. Critical interpretation and creation of drawings and models. Perspective drawing and digital modeling. Course may be offered in classroom-based or hybrid format. 1 lecture, 1 activity. Formerly ARCH 133.

ARCH 2000 Architecture Design Studio for Non-Majors (3 units)

Term Typically Offered: F, SP

2026-28 or later catalog: GE Area 3A

2020-26 catalogs: GE Area C1

Studio experience includes design projects gradually increasing in scale and complexity. Analysis of architectural case studies to introduce a variety of concepts and constructs. Introduction to processes, tools, and methods of drawing and modeling. Not open for major credit in Architecture. Course may be offered in classroom-based or online format. 2 lectures, 1 laboratory. Fulfills GE Area 3A (GE Area C1 for students on the 2020-26 catalogs). Formerly ARCH 201.

ARCH 2201 Architectural Design III (5 units)

Term Typically Offered: F

Prerequisite: ARCH 132 or ARCH 1102. Concurrent: ARCH 2231.

Design, analysis, and communication of architecture with emphasis on conceptual, formal, spatial, and tectonic systems as they relate to program and site conditions. Field trip required. 1 lecture, 4 laboratories. Formerly ARCH 251.

ARCH 2202 Architectural Design IV (5 units)

Term Typically Offered: SP

Prerequisite: ARCH 251 or ARCH 2201. Concurrent: ARCH 2232.

Fourth part of a multipart sequence in Architectural Design. Design, analysis, and communication of architecture in a medium to high density context with emphasis on conceptual, formal, spatial, tectonic, and diverse cultural systems as determinants that shape the built environment. Field trip required. 1 lecture, 4 laboratories. Formerly ARCH 252.

ARCH 2221 History of World Architecture I: Prehistory to 17th Century (3 units)

Term Typically Offered: F

2026-28 or later catalog: GE Area 3A

2020-26 catalogs: GE Area C1

World architecture and urbanism from prehistory until seventeenth century. Political, social, religious, environmental, and technological conditions that shaped the built environment in Africa, the Americas, Asia, Europe, and Oceania. Course may be offered in classroom-based or online format. 3 lectures. Fulfills GE Area 3A (GE Area C1 for students on the 2020-26 catalogs). Formerly ARCH 217.

ARCH 2222 History of World Architecture II: 17th Century to the Present (3 units)

Term Typically Offered: SP

2026-28 or later catalog: GE Area 3A

2020-26 catalogs: GE Area C1

World architecture and urbanism from the seventeenth century to the present. Political, social, religious, environmental, and technological conditions that shaped the built environment in Africa, the Americas, Asia, Europe, and Oceania. Course may be offered in classroom-based or online format. 3 lectures. Fulfills GE Area 3A (GE Area C1 for students on the 2020-26 catalogs). Formerly ARCH 218.

ARCH 2231 Architectural Representation III (1 unit)

Term Typically Offered: F

Prerequisite: ARCH 132 or ARCH 1102. Concurrent: ARCH 2201.

Continuation in a multipart sequence in architectural representation. History, theory, and practice of two- and three-dimensional graphic and physical representations of objects and environments. Critical interpretation and creation of drawings and models. Concepts include advanced digital and parametric modeling. Half-semester course. Course may be offered in classroom-based or hybrid format. 1 unit. Formerly ARCH 207.

ARCH 2232 Architectural Representation IV (1 unit)

Term Typically Offered: SP

Prerequisite: ARCH 251 or ARCH 2201. Concurrent: ARCH 2202.

Continuation in a multipart sequence in architectural representation. History, theory, and practice of two- and three-dimensional graphic and physical representations of objects and environments. Critical interpretation and creation of drawings and models. Concepts include rendering and image-making. Half-semester course. Course may be offered in classroom-based or hybrid format. 1 unit. Formerly ARCH 253.

ARCH 2235 Topics in Architectural Representation (3 units)

Term Typically Offered: F, SP

Introduction to concepts, tools, and media in a specified topic of 2- or 3-dimensional architectural representation. Project-based instruction and critique. The Class Schedule will list subtitle selected. Repeatable up to 6 units. 2 lectures, 1 laboratory. Replaced ARCH 313.

ARCH 2241 Architectural Technology Fundamentals I (4 units)

Term Typically Offered: F

Prerequisite: ARCH 131 or ARCH 1101.

Introduction to architectural technologies, including those related to daylighting, building materials, load-bearing wall systems, site analysis, topography, and stormwater management. Studies are rooted in knowledge of ecology, carbon economies, and sustainability. Organized into three topic areas: site systems, energy systems, and construction systems. Field trip required. Course may be offered in classroom-based, online, or hybrid format. 2 lectures, 2 activities. Formerly ARCH 241.

ARCH 2242 Architectural Technology Fundamentals II (4 units)

Term Typically Offered: SP

Prerequisite: ARCH 241 or ARCH 2241.

Second course in a multipart sequence that introduces architectural technologies, including those related to urban development, regulatory requirements, passive design strategies for thermal comfort, moisture control, life-safety, and accessibility. Organized into three topic areas: site systems, energy systems, and construction systems. Course may be offered in classroom-based, online, or hybrid format. 2 lectures, 2 activities. Formerly ARCH 242.

ARCH 2270 Special Topics (1-3 units)

Term Typically Offered: F, SP

Prerequisite: Consent of instructor.

Directed group study of special topics. The Class Schedule will list topic selected. Repeatable up to 6 units. 1 to 3 lectures. Formerly ARCH 270.

ARCH 3301 Integrated Architectural Design (5 units)

Term Typically Offered: SP

Prerequisite: ARCE 315 or ARCE 3301; ARCH 252 or ARCH 2202; and ARCH 341 or ARCH 3341. Concurrent: ARCH 3342.

Design and development of a comprehensive architectural project. Synthesis of site conditions, user requirements, and sustainable design practices. Integrated design of whole-building systems. Field trip required. 5 laboratories. Formerly ARCH 352.

ARCH 3325 Topics in Architectural History, Theory, and Criticism (3 units)

Term Typically Offered: F, SP

2026-28 or later: Upper-Div GE Area 3

2020-26 catalogs: Upper-Div GE Area C

Prerequisite: Junior standing; completion of GE Area 1 with grades of C- or better (GE Area A for the 2020-26 catalogs); completion of GE Area 2 with a grade of C- or better (GE Area B4 for the 2020-26 catalogs); and one of the following: ARCH 217, ARCH 218, ARCH 2221, ARCH 2222, ART 112, or ART 1112; or ART 212 or ART 2212 and completion of GE Area 3A (GE Area C1 for the 2020-26 catalogs).

In-depth examination of a significant region, movement, subject, or period in architectural history, theory and/or criticism. The material covered will vary depending upon the topic. The Class Schedule will list subtitle selected. Repeatable to 6 units. Course may be offered in classroom-based, online, or hybrid format. 3 lectures. Fulfills GE Upper-Division 3 (GE Area Upper-Division C for students on the 2020-26 catalogs). Formerly ARCH 320.

ARCH 3331 Building Information Modeling (2 units)

Term Typically Offered: F

Concurrent: ARCH 3341.

Introduction to methods and theories that inform contemporary digital modeling and representation for design, testing, and documentation of buildings. Application of contemporary tools through the creation of a complete Building Information Model (BIM) of an existing building. Course may be offered in classroom-based, online, or hybrid format. 1 lecture, 1 activity. Formerly ARCH 353.

ARCH 3341 Architectural Systems Integration I (4 units)

Term Typically Offered: F

Prerequisite: ARCH 242 or ARCH 2242. Concurrent: ARCH 3331.

Continuation of a multipart sequence with a focus on whole-building and site, form-determinant design decision making for architects. Includes building systems such as life-safety, structural, mechanical, plumbing, and enclosure as they impact the built environment, human experience, building performance, and environment. Course may be offered in classroom-based, online, or hybrid format. 2 lectures, 2 activities. Formerly ARCH 341.

ARCH 3342 Architectural Systems Integration II (5 units)

Term Typically Offered: SP

Prerequisite: ARCH 341 or ARCH 3341. Concurrent: ARCH 3301.

Continuation of a multipart sequence with a with focus on integration of structural systems with exterior and interior enclosures and their impact on design decision making, sustainability and health. Includes wall, ceiling and floor material assemblies, composition and environmental performance, architectural lighting, and acoustics. Course may be offered in classroom-based, online, or hybrid format. 3 lectures, 2 activities. Formerly ARCH 342.

ARCH 4400 Special Problems for Advanced Undergraduates (1-3 units)

Term Typically Offered: F, SP, SU

CR/NC

Prerequisite: Consent of instructor.

Individual investigation, research, studies, or surveys of selected problems. Repeatable up to 6 units. Credit/No Credit grading only. Formerly ARCH 400.

ARCH 4401 Advanced Architectural Design (5 units)

Term Typically Offered: F, SP

Prerequisite: ARCH 252 or ARCH 2202; one of the following: ARCH 207, ARCH 253, ARCH 2231, or ARCH 2232; ARCH 242 or ARCH 2242; one of the following: PHYS 121, PHYS 141, PHYS 1121, or PHYS 1141; and MATH 119 or MATH 1007.

Advanced architectural design projects representative of architecture's many manifestations and interpretations in human culture. Course may be offered through off-campus programs. Field trip may be required. Course may be offered in classroom-based, online, or hybrid format. Repeatable up to 15 units. 1 discussion, 4 laboratories. Formerly ARCH 351.

ARCH 4415 Topics in Design (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; and one of the following: Architecture major, Architectural Engineering major, City and Regional Planning major, Construction Management major, Landscape Architecture major, or Architecture minor.

Analysis of traditional and alternative principles, practices and methods of design in architecture and related fields. Cultural, geographical, historical and contemporary design approaches are considered through case studies, readings, and student presentations. The Class Schedule will list subtitle selected. Repeatable up to 12 units. 3 lectures. Formerly ARCH 469.

ARCH 4425 Seminar in Architectural History, Theory and Criticism (3 units)

Term Typically Offered: F, SP

Prerequisite: ARCH 217 or ARCH 1121; ARCH 218 or ARCH 2221; and ARCH 219 or ARCH 2222; or graduate standing.

Topics based on the exploration of specific approaches, periods, or areas of architecture and the built environment. The Class Schedule will list subtitle selected. Repeatable up to 9 units. Course may be offered in classroom-based or online format. 3 seminars. Formerly ARCH 420.

ARCH 4435 Advanced Topics in Architectural Representation (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; and one of the following: Architecture major, Architectural Engineering major, City and Regional Planning major, Construction Management major, Landscape Architecture major, or Architecture minor.

Advanced concepts, tools, and media in a specified topic of architectural representation. Project-based instruction and critique. The Class Schedule will list subtitle selected. Repeatable up to 6 units. 2 lectures, 1 laboratories. Formerly ARCH 461.

ARCH 4437 Topics in Computational Design and Digital Fabrication (3 units)

Term Typically Offered: F, SP

Prerequisite: One of the following: ARCH 201, ARCH 253, ARCH 2000, or ARCH 2232.

Two- and three-dimensional computational design and digital fabrication methods. Analysis of historic and contemporary computational design and digital fabrication cases in architecture. Class Schedule will list subtitle selected. Repeatable up to 6 units. 2 lectures 1 laboratory. Formerly ARCH 460.

ARCH 4441 Issues in Contemporary Professional Practice (4 units)

Term Typically Offered: SP

Prerequisite: ARCH 342 or ARCH 3342.

Exploration of issues related to the practice of architecture, including financial considerations, client obligations, project and practice management, leadership, legal responsibilities, ethics and professional judgment, community and social responsibility, as well as the process and requirements for internship and licensure. 2 lectures, 2 discussions. Formerly ARCH 443.

ARCH 4445 Topics in Architectural Technology and Practice (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; and one of the following: Architecture major, Architectural Engineering major, City and Regional Planning major, Construction Management major, Landscape Architecture major, or Architecture minor.

Exploration of selected topics in architectural technology and/or practice. Topics may address specific materials, methods of construction, building systems, or site technologies. Deploy specific techniques of building design or analysis, or engage expanding modes of practice. The Class Schedule will list subtitle selected. Field trip may be required. Repeatable up to 6 units. 2 lectures, 1 laboratory. Formerly ARCH 462.

ARCH 4447 Topics in Design Build and Fabrication (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing.

Experimental design-build projects derived from real-world architectural problems. Objectives achieved through design, analysis, construction, and individual or team-based production. The Class Schedule will list subtitle selected. Repeatable up to 6 units. 2 lectures, 1 laboratory. Formerly ARCH 479.

ARCH 4460 Senior Architectural Thesis Theory and Research Seminar (3 units)

Term Typically Offered: F

GWR

Prerequisite: ARCH 420 or ARCH 4425. Concurrent: ARCH 4461.

Research of, and critical engagement with, selected aspects of architectural theory and discourse. Development of a final draft written architectural thesis. 3 seminars. Fulfills GWR.

ARCH 4461 Senior Project: Architectural Thesis I (5 units)

Term Typically Offered: F

Prerequisite: ARCH 352 or ARCH 3301; and completion of 15 units of ARCH 351 or ARCH 4401. Concurrent: ARCH 4460.

Design research, and preliminary design, of an architectural thesis project. Correlated to a written architectural thesis. Integration of architectural theory with the formal, spatial, material, contextual, technical, and representational aspects of architectural design. Engagement in critical discourse. 1 discussion, 4 laboratories. Formerly ARCH 481.

ARCH 4462 Senior Project: Architectural Thesis II (5 units)

Term Typically Offered: SP

Prerequisite: ARCH 481 or ARCH 4461.

Continuation of senior project for Architecture students. Design development and defense of an architectural thesis project, and submission of final thesis book. Integration of architectural theory with the formal, spatial, material, contextual, technical, and representational aspects of architectural design. Engagement in critical discourse. 1 discussion, 4 laboratories.

ARCH 4470 Special Advanced Topics (1-3 units)

Term Typically Offered: F, SP

Prerequisite: Consent of instructor.

Directed group study of special topics for advanced students. The Class Schedule will list topic selected. Repeatable up to 6 units. 1 to 3 lectures. Formerly ARCH 470.

ARCH 4485 Cooperative Education Experience (1-12 units)

Term Typically Offered: F, SP, SU

Prerequisite: Consent of instructor.

Professional work experience in architecture and related fields, usually off-campus. Positions are paid. Formal report and evaluation by work supervisor required. Repeatable up to 24 units. Formerly ARCH 485.

ARCH 4494 Topics in Architectural Research (3 units)

Term Typically Offered: F, SP

Prerequisite: Junior standing; and one of the following: Architecture major, Architectural Engineering major, City and Regional Planning major, Construction Management major, or Landscape Architecture major.

Development of guided architectural research under the direction of faculty. The Class Schedule will list subtitle selected. Repeatable up to 6 units. 3 seminars. Formerly ARCH 484.

ARCH 5501 Architectural Graduate Research Studio I (5 units)

Term Typically Offered: F

Prerequisite: Graduate standing.

Research-based architectural design studio under the guidance of faculty. Experimentation and testing of architectural research to inform design proposals. Reviews and critiques of visual and narrative communication of research-informed design proposals. 1 discussion, 4 laboratories. Formerly ARCH 551.

ARCH 5502 Architectural Graduate Research Studio II (5 units)

Term Typically Offered: SP

Prerequisite: ARCH 551 or ARCH 5501.

Research-based architectural design studio under the guidance of faculty. Development of design proposals based on research. Reviews and critiques of visual and narrative communication of designs, data, simulations, and projective speculations. 1 discussion, 4 laboratories.

ARCH 5540 Interdisciplinary Testing (3 units)

Term Typically Offered: SP

Prerequisite: ARCH 551 or ARCH 5501; and ARCH 532 or ARCH 5580.

Fabrication and testing of climate responsive building assemblies in multidisciplinary teams. Exercises introduce materials, workflow, and testing strategies concluding with complex problems exploring the integration of building assemblies in architecture. Field trip required. 3 activities. Formerly ARCH 561.

ARCH 5570 Special Advanced Topics (1-3 units)

Term Typically Offered: F, SP

Prerequisite: Graduate standing and consent of instructor.

Directed group study of special topics for graduate students. The Class Schedule will list topic selected. Repeatable up to 6 units. 1 to 3 lectures. Formerly ARCH 570.

ARCH 5580 Research Methods in Architecture (4 units)

Term Typically Offered: F

Prerequisite: Enrollment in the MS Architecture program.

Qualitative, quantitative, and mixed research methods to inform beginning researchers about rigorous approaches to information gathering, research, analysis, and writing. Exercises lead to a final paper on a research plan. Course may be offered in classroom-based or online format. 4 seminars. Formerly ARCH 532.

ARCH 5598 Project (6 units)

Term Typically Offered: F, SP

Prerequisite: ARCH 532 or ARCH 5580.

Completion of Master's architectural project in response to a climatological problem. Culmination of research, making, and revisions based on faculty supervision and feedback. Communication of design proposal through architectural representations, critical traditions, and written report. Course may be offered in classroom-based or online format. 1 discussion. Formerly ARCH 598.