Architecture (ARC)

Architecture (ARC) Courses

ARC 5003. Architectural Principles. (2-2) 3 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. An introduction to the basic principles and skills associated with architectural design.

ARC 5011. Introduction to Architecture and Design. (1-0) 1 Credit Hour.
Prerequisite: Enrollment in the M.Arch. 3 program. A lecture course introducing ideas and concepts associated with architecture and design.

ARC 5113. Design and Leadership. (3-0) 3 Credit Hours.
An in-depth study of design as a form of leadership in the emerging global environment. Includes consideration of leadership qualities to affect change through design and practice.

ARC 5133. Professional Architectural Practice and Ethics. (3-0) 3 Credit Hours.
Prerequisite: ARC 6146. A study of national, international and legal business practices and conventions relating to the building industry. Course material considers project delivery options, construction methodologies and corresponding administration systems, liability, contract documents, and ethics as practices that inform the professional practice of architecture. (Formerly titled “Professional Practice and Construction in a Global Setting.”).

ARC 5156. Introductory Design Studio I. (0-14) 6 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. Architectural design as a theoretically informed and creative process. Provides students the opportunity to acquire fundamental design skills for the creative and practical design of architectural environments. Projects consider spatial experience, contextual response, building form and structure and the development of representational skills. (Formerly ARC 5196. Credit cannot be earned for both ARC 5156 and ARC 5196).

ARC 5163. Current Issues and Topics in Contemporary Architecture. (3-0) 3 Credit Hours.
A critical survey of the leading issues, theories, writings, projects, and built works of architecture over the past 20 years. May be repeated for credit once when topics vary.

ARC 5166. Introductory Design Studio II. (0-14) 6 Credit Hours.
Prerequisites: ARC 5156 and enrollment in the M.Arch. 3 program. Provides students the opportunity to acquire design skills in the application of building technology and material use through the consideration of building structure and envelope. Projects consider spatial experience, programming, organizational concepts, building-to-site relations, and tectonics.

ARC 5173. Architectural Theory and Criticism. (3-0) 3 Credit Hours.
A survey of contemporary architectural theory and criticism from 1950 to the present. May be repeated for credit once when topics vary. (Formerly COA 5173. Credit cannot be earned for both ARC 5173 and COA 5173).

ARC 5176. Introductory Design Studio III. (0-14) 6 Credit Hours.
Prerequisites: ARC 5166 and enrollment in the M.Arch. 3 program. Architectural design as a theoretically informed and creative process. Provides students the opportunity to acquire design skills in the application of building technology and material use through the consideration of building structure and envelope. Projects of increasing complexity considering architectural order, precedent, urban and non-urban contexts, building performance, structure and detailing. Continues investigation of traditional and digital media.

ARC 5193. Principles of Global Architecture: Place, Context & Culture. (3-0) 3 Credit Hours.
A study of global, historical, and cross-cultural architectural principles. Consideration is given to the political, social, ecological, economical, and/or technological context that informs the work as well as the diverse social and spatial patterns, values, and needs of those who occupy and use buildings.

ARC 5203. History and Theory of Preservation. (3-0) 3 Credit Hours.
An introduction to the history, philosophy, methodologies and practices of historic preservation and restoration.

ARC 5233. Architectural Surveys and Measured Drawings. (3-0) 3 Credit Hours.
A survey of documentation and interpretation of sites and buildings and graphic recording techniques.

ARC 5403. Historic Preservation Seminar. (3-0) 3 Credit Hours.
An advanced study of selected topics in architecture, design, preservation, and planning. May be repeated once for credit, when topics vary.

ARC 5423. Legal and Economic Aspects of Preservation. (3-0) 3 Credit Hours.
A survey of the laws and regulations that affect preservation of the built environment, nationally, regionally, and locally. Includes considerations of fundamentals of legal protection for and regulation of historic cultural resources in light of contemporary attitudes toward the historic environment, and the economic bases of the use of historic buildings and sites examined in terms of contemporary social and cultural attitudes that determine effective strategies of preservation action.

ARC 5533. Contemporary Materials in Architecture and Design. (1-4) 3 Credit Hours.
A survey and examination of contemporary materials from multiple perspectives. Includes consideration of the characteristics and applications of existing, new, and emerging materials. Includes design project.

ARC 5543. Advanced Digital Design and Fabrication Technologies in Architecture. (3-0) 3 Credit Hours.
An in-depth examination of contemporary digital design and fabrication technologies in architecture and other design disciplines.

ARC 5603. Advanced Seminar in Architectural History. (3-0) 3 Credit Hours.
An in-depth study or survey investigating selected topics in architectural history. May be repeated once for credit, when topics vary.

ARC 5613. American Architecture. (3-0) 3 Credit Hours.
A survey of the development of the architecture of the United States from the earliest human settlements to the present.

ARC 5623. History of Modern Architecture. (3-0) 3 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. Study of the social, aesthetic, theoretical, technical, cultural, Western and non-Western, and professional forces that form, shape, and constitute architecture of the modern era.

ARC 5643. Modern Architecture of Mexico. (3-0) 3 Credit Hours.
A survey of the architecture and urbanism of Mexico from Independence in 1821 to the present.

ARC 5653. Pre-Columbian and Colonial Architecture of Mexico. (3-0) 3 Credit Hours.
A survey of the architecture and urbanism of Mexico during the pre-Columbian and Colonial eras.
ARC 5663. The Architecture and Cities of Northern Mexico. (3-0) 3 Credit Hours.
A detailed survey of the architecture and urbanism of the border states of Northern Mexico, focusing on the modern era from 1821 to the present.

ARC 5713. Environmental Architecture and Sustainability. (3-0) 3 Credit Hours.
A study of history and theory of environmentally sustainable design. Includes the review of the general discourse of sustainability and consideration of the tools and techniques employed to produce sustainable architectural environments. (Formerly ARC 5153. Credit cannot be earned for both ARC 5713 and ARC 5153).

ARC 5723. Applications in Sustainable Design. (3-0) 3 Credit Hours.
An introduction to the integration of environmental performance criteria in architectural design. Includes the application of simulation methods, design decision support tools, rating systems (e.g., LEED), and consideration of building energy consumption patterns, conservation strategies, solar shading, solar access, integration of electric and daylight, and the life cycle analysis of materials and systems.

ARC 5733. Advanced Building Technology and Sustainability. (3-0) 3 Credit Hours.
An advanced study of building technology, sustainability, and building performance. Includes consideration of sustainable techniques, technologies, building enclosure, and environmental systems for new and existing buildings. Addresses issues of systems integration and performance optimization. (Credit cannot be earned for both ARC 5513 and ARC 5733).

ARC 5743. Building Performance Modeling and Simulation. (3-0) 3 Credit Hours.
An introduction to the integration of building performance modeling and simulation into the design process to improve building performance in new and existing buildings. Includes consideration of building energy consumption patterns, conservation strategies, solar shading, solar access, and integration of electric lighting and daylighting.

ARC 5753. Advanced Daylighting Design and Analysis. (3-0) 3 Credit Hours.
A study of the design, analysis methods, and technologies of architectural daylighting. Includes issues of the visual environment, daylight availability, lighting and energy use, lighting and thermal comfort, and the integration of electric lighting and daylighting.

ARC 5763. Post-Occupancy Evaluation of Buildings. (3-0) 3 Credit Hours.

ARC 5773. Environmental Life Cycle Assessment of Buildings. (3-0) 3 Credit Hours.
An introduction to the principles, and assessment methods used in the environmental LCA of new and existing buildings. Includes a study of the relationship between product life cycle and environmental impact, resource conservation, and pollution prevention; interpretation of LCA results, integration of LCA in building design and environmental rating systems.

ARC 5813. History and Theory of Urban Form. (3-0) 3 Credit Hours.
Considers the origins and characteristics of cities, their current condition, and emerging theories of urban design.

ARC 5913. Introduction to Construction Materials and Concepts. (3-0) 3 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. Introduction to concepts and skills fundamental to structures, construction, building enclosure, sustainability, and interior environments along with the analysis and selection of materials, components, and assemblies. Provides an introduction to the historical role of materials in architectural and interior design.

ARC 5923. Principles of Structures. (3-0) 3 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. Introduction to architectural structures including the principles and systems of structural materials that consider the spatial, structural, sustainable, and aesthetic qualities possible in the articulation of structure through architectural design. (Formerly titled "Introduction to Structures II").

ARC 5933. Structures. (2-2) 3 Credit Hours.
Prerequisites: ARC 5923 and enrollment in the M.Arch. 3 program. Continued introduction to architectural structures that considers the physical principles that govern classical statics and strength of materials, the graphical and mathematical design of structural systems and the role of structural articulation in the design of buildings. (Formerly titled "Introduction to Structures II").

ARC 5943. Principles of Environmental Systems. (3-0) 3 Credit Hours.
Prerequisite: Enrollment in the M.Arch. 3 program. Environmentally responsive design of buildings and the natural and artificial systems that support them, including heating, ventilation, cooling, water, and waste management. (Formerly titled "Introduction to Environmental Systems I").

ARC 5953. Environmental Systems. (2-2) 3 Credit Hours.
Prerequisites: ARC 5943 and enrollment in the M.Arch. 3 program. Light and sound as design considerations in building design including the natural and artificial systems that support them. (Course deals with illumination, electrical design, and acoustics. (Formerly titled "Introduction to Environmental Systems II").

ARC 6003. Morphology of the Architecture of the Southwest. (3-0) 3 Credit Hours.
An examination of environmental conditions, cultural traditions, social patterns, building conventions, and aesthetic intentions that have influenced the architecture and planning of communities of South Texas, the Southwest, and the North Mexican borderlands. (Formerly ARC 6123. Credit cannot be earned for both ARC 6003 and ARC 6123).

ARC 6013. Theories and Philosophies of Regionalism. (3-0) 3 Credit Hours.
A survey of the discourse of architectural regionalism. Includes consideration of regionalist theory and practice in the twentieth century, regional planning, critical regionalism, bioregionalism, sustainability, and issues such as modernity, globalization, cultural identity, authenticity, place, and tradition. (Formerly ARC 5213. Credit cannot be earned for both ARC 6013 and ARC 5213).

ARC 6126. Advanced Design Studio. (0-14) 6 Credit Hours.
Prerequisites: Completion of, or concurrent enrollment in, ARC 5173 and ARC 5733. An introduction to advanced architectural design, including the role of research, program preparation, and technological integration in architectural design.

ARC 6136. Advanced Topics Studio. (0-14) 6 Credit Hours.
Prerequisite: ARC 6126. An advanced architectural design studio, which allows faculty and students to explore a range of architecture-related topics in a studio setting. Content varies. (Formerly titled “Advanced Design Studio II.”).
ARC 6146. Advanced Technical Studio. (0-14) 6 Credit Hours.
Prerequisites: ARC 6136, graduate standing and consent of instructor.
An advanced architectural design studio, which includes the integration of building materials, services, and systems, technical documentation and comprehensive design. (Formerly titled “Advanced Design Studio III.”).

ARC 6223. Digital Design. (2-2) 3 Credit Hours.
Prerequisite: Consent of instructor. Project-driven lecture/laboratory course exploring advanced issues associated with 3-D modeling, animation, photo-realistic visualization, and computer-aided manufacturing. Considers the role these processes play in architectural and interior design.

ARC 6243. Advanced Design Visualization. (0-6) 3 Credit Hours.
Advanced exploration of graphic processes and techniques utilized in the design of the built environment.

ARC 6323. Master’s Thesis Preparation. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An advanced study aimed at supporting the development of a Master’s thesis.

ARC 6413. Sustainable Preservation Technology. (1-4) 3 Credit Hours.
A survey of techniques of preservation: methods of analysis, history of materials, and technology used in old buildings. Includes emphasis on buildings as integrated sets of subsystems and how these are affected by the processes of material deterioration, conservation, and techniques of intervention.

ARC 6423. Architectural Conservation Theory. (3-0) 3 Credit Hours.
An advanced study and critical analysis of current design theory and techniques for conservation of historic sites.

ARC 6433. Research Methods. (3-0) 3 Credit Hours.
An examination of theories and methods in architectural research. Includes a critical review of theoretical perspectives and considers a range of research methods and techniques used in architectural research. (Formerly COA 6433. Credit cannot be earned for both ARC 6433 and COA 6433.).

ARC 6443. International Charters, Guidelines and Historic Site Management. (3-0) 3 Credit Hours.
A survey of international charters, guidelines and laws applicable to the management of cultural heritage sites globally. Includes study of documentation, planning, community engagement, public interpretation, design/conservation treatments, and universal values, as well as UNESCO World Heritage process and purpose.

ARC 6453. Cultural Landscape Conservation Theory. (3-0) 3 Credit Hours.
Advanced study and critical analysis of contemporary design theory, methods and values for conservation of cultural landscapes and historic urban landscapes.

ARC 6463. Heritage Tourism Planning and Design. (3-0) 3 Credit Hours.
Course introduces the theory, practice and current issues of cultural heritage tourism planning and design as a socio-cultural phenomenon. Topics include motives and behaviors of heritage tourists, resources and attractions, plus public interpretation and management policy. Explores connection of cultural heritage tourism to sustainable community development.

ARC 6473. Material Assessment and Conservation. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An in-depth study of sustainable preservation technology to include building material and finishes in construction, use, application and installation techniques, methods of evaluation and study of material deterioration, current practices for remediation and replacement.

ARC 6493. Architectural Transformations. (3-0) 3 Credit Hours.
Seminar course that considers design strategies and approaches in the redevelopment and redesign of existing buildings and landscapes. Covers topics such as adaptive use, and new design within historic contexts.

ARC 6513. Sustainable Tourism Development. (3-0) 3 Credit Hours.
An advanced study of the environmental, economic, and socio-cultural aspects of sustainable tourism development, and the basic concepts and theories of sustainability in tourist destinations. Topics include sense of place, identity, community participation, sustainable design of city spaces and tourist places. Emphasize on sustainable tourism potentials, tourism futures and marketing tourism destinations.

ARC 6523. Architecture, Spectacle and Tourism. (3-0) 3 Credit Hours.
Course includes consideration of the relationship between politics, popular culture, and the built environment, tourism consumption, experience and commodification, place image and tourism, sense of place – genius loci, new politics of spectacle, and tourism places, spaces and change.

ARC 6816. Study Abroad: Advanced Design Studio. (0-14) 6 Credit Hours.
Prerequisite: Consent of instructor. An advanced architecture design studio associated with a study abroad program.

ARC 6823. Study Abroad: Advanced Architectural History/Theory. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An advanced study in architectural history/theory associated with a study abroad program; involves field trips.

ARC 6833. Study Abroad: Advanced Architectural Representation. (0-6) 3 Credit Hours.
Prerequisite: Consent of instructor. A graduate-level drawing and other media course associated with a study abroad program; involves field trips.

ARC 6931. Master’s Project Preparation. (0-4) 1 Credit Hour.
Prerequisites: ARC 5173 and ARC 6126. The course involves the research and preparation of a proposal for an independent design project. The grade report for the course is either “CR” (satisfactory performance) or “NC” (unsatisfactory performance). (Former ARC 6933. Credit cannot be earned for both ARC 6931 and ARC 6933).

ARC 6943. Professional Internship. (0-0) 3 Credit Hours.
Prerequisites: Consent of instructor. Supervised professional practice experience with public agencies or private firms. Individual conferences and written reports required. May be repeated for credit, but not more than 3 hours will apply to the Master of Architecture degree or the Master of Science in Architecture degree.
ARC 6951. Independent Study. (0-0) 1 Credit Hour.
Prerequisites: Permission in writing (form available) of the instructor and the Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master of Architecture degree or the Master of Science in Architecture degree.

ARC 6952. Independent Study. (0-0) 2 Credit Hours.
Prerequisites: Permission in writing (form available) of the instructor and the Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master of Architecture degree or the Master of Science in Architecture degree.

ARC 6953. Independent Study. (0-0) 3 Credit Hours.
Prerequisites: Permission in writing (form available) of the instructor and the Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the Master of Architecture degree or the Master of Science in Architecture degree.

ARC 6951. Comprehensive Examination. (0-0) 1 Credit Hour.
Prerequisites: Permission of the architecture Graduate Advisor of Record. Independent study course for the purpose of taking the Comprehensive Examination. The grade report for the course is either “CR” (satisfactory performance on the Comprehensive Examination) or “NC” (unsatisfactory performance on the Comprehensive Examination). Credit earned in ARC 6951 may not be counted toward the Master of Science in Architecture degree. May be repeated once.

ARC 6973. Special Topics. (3-0) 3 Credit Hours.
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Topics courses may be repeated for credit when topics vary, but not more than 6 semester credit hours of ARC 6973 or 12 hours of ARC 6976 will apply to the Master of Architecture degree or the Master of Science in Architecture degree.

ARC 6976. Special Topics. (6-0) 6 Credit Hours.
An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Topics courses may be repeated for credit when topics vary, but not more than 6 semester credit hours of ARC 6973 or 12 hours of ARC 6976 will apply to the Master of Architecture degree or the Master of Science in Architecture degree.

ARC 6981. Master’s Thesis. (0-0) 1 Credit Hour.
Prerequisites: ARC 6983 and consent of instructor. May be repeated for credit, but not more than 6 hours will apply to the Master of Science in Architecture degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress. (Formerly COA 6981.)

ARC 6983. Master’s Thesis. (0-0) 3 Credit Hours.
Prerequisites: ARC 6323 and consent of instructor. May be repeated for credit, but not more than 6 hours will apply to the Master of Science in Architecture degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress. (Formerly COA 6983.)