

COLLEGE OF ARCHITECTURE (COA)

COA 1011. Fundamentals of Design and the Built Environment I. 3 Credit Hours.

Introduction to creative problem-solving and the design realization cycle through project-based design exercises that emphasize the role of representation.

COA 1012. Fundamentals of Design and the Built Environment II. 4 Credit Hours.

Introduction to the design of complex problems through an emphasis on integrative and collaborative design strategies, research, critical reflection, and interdisciplinary team work.

COA 1060. Introduction to Design and the Built Environment. 3 Credit Hours.

Introduction to architecture, building construction, and industrial design through case studies that illuminate past and present practices, as well as future possibilities within the disciplines.

COA 2698. Undergraduate Research Assistantship. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

COA 2699. Undergraduate Research. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

COA 4000. Furniture Workshop: Material Potential and Fabrication Strategies. 3 Credit Hours.

The course investigates construction into the design cycle to explore the boundaries between furniture, architecture, and sculpture. Exercises introduce furniture production techniques, material properties, and CNC milling.

COA 4010. History of Construction Industry. 3 Credit Hours.

Addresses how today's construction industry is organized and its particular characteristics, how it evolved from early times and where it may be heading in the future.

COA 4698. Undergraduate Research Assistantship. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

COA 4699. Undergraduate Research. 1-12 Credit Hours.

Independent research conducted under the guidance of a faculty member.

COA 4801. Special Topics. 1 Credit Hour.

Topics in design and the built environment.

COA 4802. Special Topics. 2 Credit Hours.

Topics in design and the built environment.

COA 4803. Special Topics. 3 Credit Hours.

Topics in design and the built environment.

COA 4804. Special Topics. 4 Credit Hours.

Topics in design and the built environment.

COA 4805. Special Topics. 5 Credit Hours.

Topics in design and the built environment.

COA 6010. History of Construction Industry. 3 Credit Hours.

Addresses how today's construction industry is organized and its particular characteristics, how it evolved from early times and where it may be heading in the future.

COA 6011. Urban Design Laboratory. 6 Credit Hours.

Urban design laboratory problems focusing on analysis, design, and implementation strategies for contemporary urban problems.

COA 6114. Art and Architecture in Classical Greece. 3 Credit Hours.

An intensive on-site investigation of the role that the arts and architecture have played in the development of classical Greek civilization.

COA 6115. Art and Architecture in Italy I. 3 Credit Hours.

Investigations of the painting, sculpture, and architecture of the Classical, Early Christian, Byzantine, and Medieval periods in Italy with special emphasis on Rome.

COA 6116. Art and Architecture in Italy II. 3 Credit Hours.

Investigations of the painting, sculpture, and architecture of the Renaissance and Baroque periods in Italy with special emphasis on the works of Rome.

COA 6120. Retrofitting the Suburbia. 3 Credit Hours.

Study of suburban redevelopment trends, projects, and policies that improve environmental, social, and economic sustainability, with an emphasis on urban design strategies.

COA 6151. History of Urban Form. 3 Credit Hours.

History of the city as a collective work of architecture with an emphasis on the city's physical form and space. Credit not allowed for both COA 6151 and ARCH 4151.

COA 6763. Design of Design Environments. 3 Credit Hours.

Analysis of design processes; analysis of current design tools at both the user interface and functional levels; procedures for developing better design tools. Credit not allowed for both COA 6763 and ID 6763 or CS 6763.

COA 6764. Geometric Modeling. 3 Credit Hours.

Software development course focusing on 3D geometric constructions and modeling; emphasizes solid modeling and its role in design. Crosslisted with CS 6764.

COA 7011. Urban Design Studio I. 6 Credit Hours.

Advanced urban design problems emphasizing the application of contemporary urban design research and multidisciplinary collaboration into the design process.

COA 7012. Urban Design Studio II. 6 Credit Hours.

Advanced urban design problems emphasizing the application of contemporary urban design research and multidisciplinary collaboration into the design process.

COA 8000. Doctoral Seminar. 1 Credit Hour.

COA 8530. PhD Planning Seminar. 1 Credit Hour.

Discussion of research and pedagogy topics and methodologies for city and regional planning.

COA 8600. The Genesis of Architecture. 3 Credit Hours.

The nature of architecture illustrated from those of all cultures; determinist theories; its social values and its meanings to the individual-material, physical, anthropological, and cognitive.

COA 8610. Thought and Interpretation in Architecture from the Hellenic Period to the 1830's. 3 Credit Hours.

A survey of architectural thought and theory taking account of other fields; paralleled by a review of major critical texts and assessments to the present day.

COA 8612. Thought and Interpretation in Architecture from the 1830's to the Twentieth Century. 3 Credit Hours.

A survey of architectural thoughts and theory taking account other fields; paralleled by a review of major critical texts and assessments to the present day.

COA 8620. The Design and Evolution of American Space. 3 Credit Hours.

Topical seminar on the development of urban, suburban, and rural American spatial forms, with emphasis on the relationship between public order and vernacular settlement.

COA 8625. Theories of Inquiry in Architecture. 3 Credit Hours.

Introduction to research paradigms and their assumptions. The formulation of questions and frameworks of description, representation, analysis, interpretation, and data control.

COA 8630. Theories of Architecture, Space and Culture. 3 Credit Hours.

Accounts of the social functions of architectural space and associated design choices, across a variety of building types and scales of environmental design. Credit will not be awarded for both COA 8630 and ARCH 4630.

COA 8635. Architecture and Policy: Linking Theory and Practice. 3 Credit Hours.

Methods and theories of planning, design, facilities management, and evaluation as they relate to organizational policy and development.

COA 8640. Theories of Psychology for Architecture. 3 Credit Hours.

An examination of social and psychological theory as it is applied to the creation and use of space.

COA 8645. Analytical Models of Built Space and Its Functions. 3 Credit Hours.

Introduction to analytical ideas and methodologies for the quantitative description of built space, form, building use, and functions. Layouts as configurations: boundaries, accessibility, visibility, extensions.

COA 8650. Formal Descriptions of Designs: Analyses of Space, Shape, and Form. 3 Credit Hours.

Introduction to the form and computational description of designs, with an emphasis on spatial patterns. Geometrical constructions, combinatorial approaches, analyses of shape.

COA 8672. Research Seminar in Design Computation. 3 Credit Hours.

Seminar review of developments in computing applied to architecture; current major research issues.

COA 8674. Structuring Multimedia Design Knowledge. 3 Credit Hours.

Theories and tools for structuring multimedia knowledge for design and designers.

COA 8676. Design and Engineering Databases. 3 Credit Hours.

Survey of database use in design and engineering; surveys relational, object-oriented database technology, and ISO-STEP methods of integration.

COA 8680. Performance Aspects of Building Systems Design. 3 Credit Hours.

Engineering analysis of building (sub) systems based on a performance ontology. Criteria, metrics, and tools for performance aspect evaluations in different building technology domains.

COA 8685. Computational Building Simulation. 3 Credit Hours.

Numerical simulation of performance characteristics of whole buildings. Review of the finite element method for uniform treatment of transport phenomena in different building technology domains.

COA 8690. Integrated Design and Engineering Environments for Buildings. 3 Credit Hours.

Surveys of issues for effective integration of heterogeneous design tools for building; previous efforts, current approaches; advanced techniques, including ISO-STEP and IAI.

COA 8811. Special Topics in Architectural/Planning Studies. 1 Credit Hour.

COA 8812. Special Topics in Architectural/Planning Studies. 2 Credit Hours.

COA 8813. Special Topics in Architectural/Planning Studies. 3 Credit Hours.

COA 8821. Special Topics in Architecture and Behavior. 1 Credit Hour.

COA 8822. Special Topics in Architecture and Behavior. 2 Credit Hours.

COA 8823. Special Topics in Architecture and Behavior. 3 Credit Hours.

COA 8831. Special Topics in Design and Technology. 1 Credit Hour.

COA 8832. Special Topics in Design and Technology. 2 Credit Hours.

COA 8833. Special Topics in Design and Technology. 3 Credit Hours.

COA 8841. Special Topics in Design Computing. 1 Credit Hour.

COA 8842. Special Topics in Design Computing. 2 Credit Hours.

COA 8843. Special Topics in Design Computing. 3 Credit Hours.

COA 8851. Special Topics in History and Theory. 1 Credit Hour.

COA 8852. Special Topics in History and Theory. 2 Credit Hours.

COA 8853. Special Topics in History and Theory. 3 Credit Hours.

COA 8861. Special Topics in History and Theory. 1 Credit Hour.

COA 8862. Special Topics in History and Theory. 2 Credit Hours.

COA 8863. Special Topics in History and Theory. 3 Credit Hours.

COA 8871. Special Topics: Urban Design. 1 Credit Hour.

COA 8872. Special Topics: Urban Design. 2 Credit Hours.

COA 8873. Special Topics: Urban Design. 3 Credit Hours.

COA 8874. Special Topics: Urban Design. 4 Credit Hours.

COA 8875. Special Topics: Urban Design. 5 Credit Hours.

COA 8876. Special Topics: Urban Design. 6 Credit Hours.

COA 8901. Special Problems. 1-21 Credit Hours.

COA 8902. Special Problems. 1-21 Credit Hours.

COA 8903. Special Problems. 1-21 Credit Hours.

COA 8904. Special Problems. 1-21 Credit Hours.

COA 8996. Qualifying Paper. 1-21 Credit Hours.

COA 8997. Teaching Assistantship. 1-9 Credit Hours.

For students holding a graduate teaching assistantship.

COA 8998. Research Assistantship. 1-9 Credit Hours.

For students holding a graduate research assistantship.

COA 8999. Preparation for Doctoral Dissertation. 1-21 Credit Hours.

COA 9000. Doctoral Thesis. 1-21 Credit Hours.