

COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

College of Architecture and Environmental Design
Center for Architecture and Environmental Design
Kent Campus
330-672-2917
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www.kent.edu/caed

Mission of the College

The College of Architecture and Environmental Design is dedicated to preparing graduates for leadership in a rapidly changing world, focused on professions relating to the design and construction of the built environment. The college's commitment is to the education of professionals who will enhance the physical environment, improve the quality of life and protect and enrich public welfare.

The college broadens students' exposure to advanced tools, techniques and theories, and complements its progressive curricula with robust co-curricular opportunities ranging from lecture and exhibition series, to symposia and traveling workshops. Experiential, collaborative, cross-disciplinary, hands-on, project-based learning in classrooms, studios and labs — as well as on project sites and in domestic and foreign cities — is key to a vibrant, forward-leaning education at the College of Architecture and Environmental Design.

The college invests in scholarship and research in the various disciplines and in the dissemination of new knowledge. It contributes to the public welfare through outreach programs to assist communities in their efforts and interest in improving the physical environment.

Undergraduate Programs

- Architectural Studies - B.A.
- Architecture - B.S.
- Construction Management - B.S.
- Interior Design - B.A.

Minors

- Architectural History
- Architectural Studies
- Construction Management
- Historic Preservation

Graduate Programs

- Architecture - M.Arch.
- Architecture and Environmental Design - M.S.
- Construction Management - M.S.
- Healthcare Design - M.H.D.
- Landscape Architecture - M.L.A. I
- Landscape Architecture - M.L.A. II
- Urban Design - M.U.D.

Graduate Certificates

- Health Systems and Facilities Design

College of Architecture and Environmental Design Faculty

- Adamtey, Simon (2016), Associate Professor, Ph.D., Indiana State University, 2016
- Bayramzadeh, Sara (2018), Associate Professor, Ph.D., University of Florida, 2015
- Bernal, Ivan A. (2018), Associate Professor, M.Arch., Southern California Institute of Architecture, 2011
- Bielak, Britta (2022), Assistant Professor, M.F.A., Virginia Commonwealth University, 2014
- Brandner, Sara K. (2010), Lecturer, M.Tech., Kent State University, 2018
- Coffman, Reid R. (2012), Professor
- Daniel, Ronn (2018), Associate Professor, M.Arch., University of Illinois at Chicago, 1994
- Davis-Sikora, Diane M. (1997), Professor, M.Arch., Harvard University Graduate & Professional School, 1995
- Fantoni, Marcello (2005), Professor
- Frederick, Charles M. (1996), Assistant Professor, M.L.A., University of Virginia-Main Campus, 1998
- Gunhan, Suat M. (2020), Professor, Ph.D., Illinois Institute of Technology, 2003
- Ho, Brendan T. (2019), Assistant Professor, M.Arch., Southern Calif Institute of Architecture, 2017
- Hughes, David (1985), Professor, M.U.P., New York City College of Technology, 1975
- Humphries, John (2022), Professor, M.F.A., Institute of Art and Design at New England College, 2022
- Hutchinson, Matthew (2022), Assistant Professor
- Jaminet, Jean J. (2017), Associate Professor, M.Arch., Princeton University, 2004
- Kim, Sung Ho H. (2023), Professor
- Lahrmer, Jill (2008), Associate Professor, B.A., Bowling Green University, 1999
- Liu, Rui (2013), Associate Professor, Ph.D., University of Colorado-Denver, 2010
- Lucak, Frederick W. (1986), Associate Professor, B.Arch., Kent State University, 1990
- Marshall, Cathy S. (2017), Associate Professor, M.L.A., Harvard University Graduate and Professional School, 2003
- Meshkani, Taraneh (2018), Assistant Professor, Harvard University Graduate & Professional School, 2016
- Mimms-Scavnick, Kristen (2021), Assistant Professor, M.Arch., University of Cincinnati, 2014
- Mirando, Anthony M. (2013), Associate Professor, M.S., Colorado State University, 2014
- Mistur, Mark S. (2016), Professor
- Mosley, Paul L. (2022), Assistant Professor, M.A., University of Illinois at Chicago, 2017
- Nolte, Laure (2024), Visiting Assistant Professor
- Onsarigo, Lameck M. (2016), Associate Professor, Ph.D., Indiana State University, 2016

- Patel, Tina (2018), Associate Professor, M.F.A., Iowa State University, 2016
- Poustinchi, Mohammad Ebrahim (2017), Associate Professor, M.Arch., University of California-Los Angeles, 2014
- Robison, Elwin C. (1985), Professor, Ph.D., Cornell University, 1985
- Rugare, Steven N. (1993), Professor
- Safley, Robert N. (2018), Associate Professor, M.Arch., University of Michigan-Ann Arbor, 2013
- Sharag-Eldin, Adil M. (2002), Associate Professor, Ph.D., University of California-Berkeley, 1998
- Sosa Fontaine, Andrea-Louise (2020), Assistant Professor
- Stauffer, Thomas A. (1977), Professor, M.Arch., University of Pennsylvania, 1976
- Strand, Kathryn E. (2003), Associate Professor, M.Arch., University of Pennsylvania, 2003
- Stroh, Gregory S. (1998), Associate Professor, M.Arch., University of Pennsylvania, 1996
- Tippet, Brett D. (2012), Associate Professor, Ph.D., Universidad de Navarra, 2011
- Willoughby, William T. (2013), Associate Professor, M.A., Kent State University, 1991
- Wohl, Sharon (2023), Associate Professor
- Xiong, Ruoxin (2024), Assistant Professor, Ph.D., Carnegie Mellon University, 2024
- Yoder, Jon (2013), Associate Professor, Ph.D., University of California-Los Angeles, 2011

Architectural Studies (ARCS)

ARCS 10123 PRINCIPLES AND TECHNIQUES OF DESIGN 3 Credit Hours

A survey of the techniques of 2D and 3D architectural representation, both historical and contemporary. Uses analytical and synthetic exercises that introduce fundamental representation skills. These exercises are supplemented by reading and writing exercises and field trips to cities with significant design culture.

Prerequisite: Architectural Studies major.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCS 20121 STUDIO FOR ARCHITECTURAL STUDIES 4 Credit Hours

Course exposes students to the distinct design processes, final products, and interconnectedness of various allied design disciplines including (but not limited to) graphic design, interior design, landscape architecture, urban design, industrial design, architecture and historic preservation.

Prerequisite: AED 10102; and Architectural Studies major.

Schedule Type: Studio

Contact Hours: 8 other

Grade Mode: Standard Letter

ARCS 20122 STUDIO FOR ARCHITECTURAL STUDIES II 4 Credit Hours

Studio allows students to further develop their design skills in relation to a theme or shared research topic that crosses the disciplinary boundaries of architecture and challenges conventional ideas of the role design can play in developing knowledge.

Prerequisite: ARCS 20121 or ARCH 20101.

Schedule Type: Studio

Contact Hours: 4 other

Grade Mode: Standard Letter

ARCS 20123 FIELD AND OBJECT STUDIO 3 Credit Hours

Through a series of related design exercises, this course explores the relationship between two-dimensional fields and three-dimensional objects. Engages students in reading, writing, research and reflection about fields and objects in architecture.

Prerequisite: ARCS 10123.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCS 20124 SCALE AND PERCEPTION STUDIO 3 Credit Hours

Through a series of related design exercises, this course explores human scale and the ways human beings perceive three-dimensional objects and spaces. Engages students in reading, writing, research and reflection about scale and perception in architecture.

Prerequisite: ARCS 10123.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCS 20125 SYSTEMS AND NETWORKS STUDIO 3 Credit Hours

Through a series of related design exercises, this course explores the ways data analysis, systems thinking and/or networks—both real and contrived—can influence architectural design. Engages students in reading, writing, research and reflection about systems and networks in architecture.

Prerequisite: ARCS 10123.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCS 20501 EXPLORATIONS IN DESIGN DISCIPLINES 1 Credit Hour

Introduces students to innovative approaches to diverse design disciplines through various activities including coordinated guest lectures and visits to leading graduate programs, forward-thinking design firms, cultural institutions and the Cleveland Urban Design Collaborative.

Prerequisite: ARCS 10123 and sophomore standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCS 30123 MATERIALS AND PROCESS OF MAKING 3 Credit Hours

Seeks to introduce and foster an ease of mobility through analog and digital design environments utilizing drawing, modeling and fabrication. Students engage in modes of production that enable the testing of material, spatial and tectonic performance through scalar prototyping.

Prerequisite: AED 10102 or ARCH 10102 or ARCS 10123 or ART 10022 or ART 10023 or FDM 10023 or ID 10112 or VCD 13001; and junior standing.

Schedule Type: Lecture, Combined Lecture and Studio, Studio

Contact Hours: 1 lecture, 4 other

Grade Mode: Standard Letter

ARCS 30124 METHODS AND THEORIES OF REPRESENTATION 3 Credit Hours

Seeks to examine traditional and contemporary methods of architectural representation as generative tools that mediate between individual idea and constructed environment.

Prerequisite: AED 10102 or ARCH 10102 or ARCS 10123 or ART 10022 or ART 10023 or FDM 10023 or ID 10112 or VCD 13001; and junior standing.

Schedule Type: Lecture, Combined Lecture and Studio, Studio

Contact Hours: 1 lecture, 4 other

Grade Mode: Standard Letter

ARCS 30321 STRUCTURAL TYPOLOGY 3 Credit Hours

Course provides an intuitive introduction to architectural structures that focuses on the historical development of structural types, structure as organization, the structural properties of materials, the physical form-finding design process and the scientific method through lab exercises and design projects.

Prerequisite: ARCH 10012 or ID 20012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCS 30421 ENVIRONMENTAL IMPERATIVES 3 Credit Hours

Course introduces students to various viewpoints on sustainable built environments with emphasis on the ethical, ecological, social, political, economic and technical implications. Engages students in debates on theoretical and practical positions on sustainability, and the organizations that support sustainable practices in the building industry.

Prerequisite: Architectural Studies major or minor, Architecture major, Construction Management major, Environmental Studies major or minor, Interior Design major or Sustainability minor; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCS 40022 URBAN DESIGN DISCOURSE (ELR) 3 Credit Hours

Course explores the interconnections among making space, image creation and inhabiting the city; and engages students in visual and textual documentation of urban life and phenomena. Course presents history, theory and practices of documentation in conjunction with investigation of, and frequent visits to, Cleveland sites as the basis for student projects.

Prerequisite: ARCH 10012 or ID 20012; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ARCS 40114 THEORY AND CRITICISM IN ARCHITECTURAL MEDIA (WIC) 3 Credit Hours

Aims at investigating the increasingly intertwined issues that link contemporary architectural theory and criticism with the world of media.

Prerequisite: ARCH 10012 or ID 20012; and junior standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

Architecture (ARCH)

ARCH 10001 UNDERSTANDING ARCHITECTURE (KFA) 3 Credit Hours

The nature of the built environment, its forms and functions are explored within the cultural contexts of ecology, technology, human behavior, symbolism, art and history.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Fine Arts, Transfer Module Fine Arts

ARCH 10011 GLOBAL ARCHITECTURAL HISTORY I (KFA) 3 Credit Hours

Global history of architecture from Neolithic times through the 16th century.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Fine Arts

ARCH 10012 GLOBAL ARCHITECTURAL HISTORY II (KFA) 3 Credit Hours

Global history of architecture from the 17th century to 2000.

Prerequisite: ARCH 10011 or ARTH 22007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Kent Core Fine Arts

ARCH 10093 WORKSHOP: VARIABLE TITLE 1-3 Credit Hours

(Repeatable for credit) Topics vary per workshop offering.

Prerequisite: Special approval.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 10101 FIRST YEAR DESIGN STUDIO I 3 Credit Hours

Introduction to ways of understanding, designing, and representing architecture. Through design exercises, students learn the strategies, principles, theories, and tools that architects use to organize, shape, and interpret the built environment. Emphasis is placed on the analysis and construction of interrelated objects, images, and ideas.

Prerequisite: Architecture Major.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 10102 FIRST-YEAR DESIGN STUDIO II 3 Credit Hours

A continued exploration into ways of understanding, designing, and representing architecture. Through design exercises, students learn the strategies, principles, theories, and tools that architects use to organize, shape, and interpret the built environment. Emphasis is placed on material, enclosure, and architectural scale.

Prerequisite: ARCH 10101 and Architecture Major.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 10111 HISTORY OF ARCHITECTURE I 3 Credit Hours

History of architecture from pre-history through the Gothic period.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 20101 SECOND-YEAR DESIGN STUDIO I 3 Credit Hours

The introduction of a building design process that emphasizes the integration of program requirements with specific form topologies using line and plane as the primary elements to provide shape and space.

Prerequisite: ARCH 10102.

Schedule Type: Studio

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 20102 SECOND-YEAR DESIGN STUDIO II 5 Credit Hours

The development of design methodologies and architectural form through processes of analysis, synthesis, and translation. Conceptual frameworks are used to further develop program, assembly systems, surface articulation, site/context within cultural /social systems and their impact on architectural form.

Prerequisite: ARCH 20101.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ARCH 20112 HISTORY OF ARCHITECTURE II 3 Credit Hours

History of architecture from the Medieval era through the 19th century.

Prerequisite: Architecture major; or Architectural Studies major or minor.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 20301 INTRODUCTION TO BUILDING STRUCTURES 3 Credit Hours

An introduction to building structures, statics, strength of materials, analysis for shear-moment-displacement and loads. Includes dead-live-wind-earthquake and building code requirements for structural safety.

Prerequisite: MATH 12011 and MATH 12012 (or MATH 12002); and PHY 13001; and Architecture major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 20601 COMPUTER APPLICATIONS IN ARCHITECTURE I 1-3 Credit Hours

Course provides a basic understanding of two-dimensional CAD operations, parametric building design and building information modeling (BIM).

Prerequisite: Architecture major or Architectural Studies major or Interior Design major.

Schedule Type: Studio

Contact Hours: 15-45 other

Grade Mode: Standard Letter

ARCH 20602 COMPUTER APPLICATIONS IN ARCHITECTURE II 1-3 Credit Hours

Principles and practices of three-dimension digital modeling and rendering, including production of geometric surfaces and forms using polygon construction, texturing, lighting and rendering.

Prerequisite: ARCH 20601; and Architecture major or Architectural Studies major or Interior Design major.

Schedule Type: Studio

Contact Hours: 15-45 other

Grade Mode: Standard Letter

ARCH 20693 WORKSHOP: COMPUTER APPLICATIONS 1-3 Credit Hours

(Repeatable for credit) Course provides an exposure to various fundamental computer topics and their application to architectural studies. Topics include file management, network applications, spreadsheets, raster image manipulations, two- and three- dimensional CAD and computer-aided visualization.

Prerequisite: Architecture major or Interior Design majors.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 30001 SITE DESIGN (WIC) 1 Credit Hour

Research component addressing technical, cultural and contextual concerns, influences and directions in site design.

Prerequisite: Architecture major; and approved admission to advanced study (third year).

Corequisite: ARCH 30101.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ARCH 30002 URBAN DESIGN 1 Credit Hour

(Equivalent to ARCH 30012) Lecture component conducted concurrently with ARCH 30102. Course addresses design of form and space in cities through study of precedents, traditions and current directions in urban form-making.

Prerequisite: ARCH 30001 and ARCH 30101.

Corequisite: ARCH 30102.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 30012 URBAN DESIGN, FLORENCE, ITALY 1 Credit Hour

(Equivalent to ARCH 30002) Lecture component conducted concurrently with ARCH 30112. Course addresses design of form and space in cities through study of precedents, traditions and current directions in urban form making.

Prerequisite: ARCH 30101.

Corequisite: ARCH 30112.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 30031 ARCHITECTURAL DISCOURSES (WIC) 3 Credit Hours

A writing-intensive course introducing fundamental disciplinary discourses in architecture and developing a critical awareness of the range of architectural ideas. Writing, revising, and verbal skills are developed and exercised in a discipline-specific context focused on architectural systems of organization and their broader historical, technological, social, and cultural contexts. Class discussions and writing assignments are based on readings and lectures about relevant architectural positions and various interpretations of buildings that shape the built environment. Written, verbal, and visual skills are developed to frame design work and ideas within the spectrum of architectural discourses.

Prerequisite: ARCH 10012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ARCH 30101 THIRD-YEAR DESIGN STUDIO I 5 Credit Hours

Studio investigation of the simultaneous concerns of program, site, context and materials of construction. Specific emphasis on the understanding of the goals, objectives, intentions and parameters of site/context in design, including cultural influences.

Prerequisite: Architecture major; and approved admission to advanced study (third year).

Corequisite: ARCH 30001.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

ARCH 30102 THIRD-YEAR DESIGN STUDIO II (ELR) 5 Credit Hours
(Equivalent to ARCH 30112) Studio investigation with specific emphasis on the understanding of the goals, objectives, intentions and parameters of urban design.

Prerequisite: ARCH 30101.

Corequisite: ARCH 30002.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ARCH 30112 THIRD-YEAR DESIGN STUDIO II, FLORENCE, ITALY (ELR) 5 Credit Hours

(Equivalent to ARCH 30102) Studio investigation with specific emphasis on understanding of the goals, objectives, intentions and parameters of urban design.

Prerequisite: Special approval.

Corequisite: ARCH 30012.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ARCH 40001 SUSTAINABLE DESIGN (WIC) 1 Credit Hour

(Slashed with ARCH 50001) Research component addressing precedents, traditions, current directions in conservation of natural environment. Principles and methods of ecological design in architecture and urban design.

Prerequisite: ARCH 30102 or ARCH 30112.

Corequisite: ARCH 40101.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ARCH 40002 SYSTEMS DESIGN 1 Credit Hour

(Slashed with ARCH 50002) Lecture and research component addressing comprehensive integration of mechanical, electrical communications structural life safety systems and sustainable design concerns.

Prerequisite: ARCH 40101.

Corequisite: ARCH 40102.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 40101 FOURTH-YEAR DESIGN STUDIO I 5 Credit Hours

(Slashed with ARCH 50101) Studio investigation of complex formal and spatial constructs addressing the comprehensive concerns of architecture. Special emphasis on understanding the conservation of the natural environment. Knowledge of CAD is required.

Prerequisite: ARCH 30102 or ARCH 30112.

Corequisite: ARCH 40001.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

ARCH 40102 INTEGRATED DESIGN STUDIO 5 Credit Hours

(Slashed with ARCH 50102) Studio investigation of the comprehensive concerns and understanding of building systems integration. Knowledge of CAD is required.

Prerequisite: ARCH 40101.

Corequisite: ARCH 40002.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

ARCH 40301 STRUCTURAL SYSTEMS I 3 Credit Hours

(Slashed with ARCH 50301) A continuation of building structures, statics strength of materials and systems analysis. Emphasis is on elastic materials, allowable stresses and design for wood and steel structural members and systems.

Prerequisite: ARCH 20301; and Architecture major; and approved admission to advanced study (third year).

Schedule Type: Combined Lecture and Lab

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 40302 STRUCTURAL SYSTEMS II 3 Credit Hours

(Slashed with ARCH 50302) A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on inelastic materials, allowable stress and design for masonry and concrete structural members and systems.

Prerequisite: ARCH 40301.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 40401 METHODS AND MATERIALS I 3 Credit Hours

(Slashed with ARCH 50401) Introduction to the origins, extraction, properties and processing of the basic materials of construction. Primary focus on wood and masonry-appropriate use and scale including code requirements, methods of construction and design consequences.

Prerequisite: Architecture major; and approved admission to advanced study (third year).

Schedule Type: Combined Lecture and Lab

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 40402 METHODS AND MATERIALS II 3 Credit Hours

(Slashed with ARCH 50402) Continued investigation of the origins, extraction, properties and processing of the basic materials of construction. Primary focus on concrete and steel-appropriate use and scale, including allied systems and building materials. Introduction to construction contract documents.

Prerequisite: ARCH 40401.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 40501 ENVIRONMENTAL TECHNOLOGY I 3 Credit Hours

(Slashed with ARCH 50501) Basic principles of ecological design and architecture environmental systems including lighting, sonic and thermal systems.

Prerequisite: PHY 13012; and Architecture major; and approved admission to advanced study (third year); or Interior Design major with special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 4.5 other

Grade Mode: Standard Letter

ARCH 40502 ENVIRONMENTAL TECHNOLOGY II 3 Credit Hours

(Slashed with ARCH 50502) Ecological design of large buildings. Investigation and analysis of lighting, thermal, water, electrical and waste systems in urban settings.

Prerequisite: ARCH 40501.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 44611 PORTFOLIO 1 Credit Hour

Architectural drawings and other allied work of the student reproduced and assembled in a professional portfolio suitable for job and graduate application.

Prerequisite: ARCH 40101.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 45210 RENAISSANCE ARCHITECTURE 3 Credit Hours

(Slashed with ARCH 55210) History and theory of renaissance architecture from 1400 until 1600.

Prerequisite: ARCH 10011 and ARCH 10012; or ARCH 10111 and ARCH 20112; or ARTH 22006 and ARTH 22007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45211 BAROQUE ARCHITECTURE 3 Credit Hours

(Slashed with ARCH 55211) History and theory of architecture in Europe from 1600 through 1750.

Prerequisite: ARCH 10011 and ARCH 10012; or ARCH 10111 and ARCH 20112; or ARTH 22006 and ARTH 22007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45213 20TH CENTURY ARCHITECTURAL HISTORY 3 Credit Hours

(Slashed with ARCH 55213) History and theory of architecture during the 20th century.

Prerequisite: ARCH 10011 and ARCH 10012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45220 AMERICAN ARCHITECTURE: COLONIAL TO 1900 3 Credit Hours

(Slashed with ARCH 55220) History of American architecture for Spanish, French, Dutch and English colonization through the 19th century.

Prerequisite: ARCH 10011 and ARCH 10012; or ARCH 10111 and ARCH 20112; or ARTH 22006 and ARTH 22007.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45230 FRANK LLOYD WRIGHT 3 Credit Hours

(Slashed with ARCH 55230) Examination of the life, buildings and literary works of Frank Lloyd Wright with emphasis on his contributions to American art and architecture and his place in American intellectual history.

Prerequisite: ARCH 10011 and ARCH 10012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45240 THE SKYSCRAPER 3 Credit Hours

(Slashed with ARCH 55240) A study of skyscrapers from the standpoint of architectural, financial, structural, psychological and technological considerations. Emphasis is placed on the early developments in Chicago and New York, the influence of the international style and the current trends in ultra-high skyscrapers built outside the United States.

Prerequisite: Minimum C grade in ARCH 10111 and ARCH 20112.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45241 ARCHITECTURE OF WORLD'S FAIRS 3 Credit Hours

(Slashed with ARCH 55241) Students investigate world's fairs and related expositions as a cultural phenomenon, an urban design challenge and an opportunity to advance and popularize ideas in architecture and design.

Prerequisite: ARCH 10011 and ARCH 10012.

Schedule Type: Seminar

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 45291 SEMINAR: VARIABLE TOPICS IN ARCHITECTURAL HISTORY 1-3 Credit Hours

(Repeatable for credit) (Slashed with ARCH 55291) Content within architectural history varies per course offering.

Prerequisite: Special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 45391 SEMINAR: STRUCTURES III 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 55391) A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on complex systems, including horizontal long span and high rise structures. Computer analysis is required.

Prerequisite: ARCH 40302.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 45491 SEMINAR: METHODS AND MATERIALS III 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 55491) Advanced topics in methods and complex materials systems. Computer modeling and field experiences are required.

Prerequisite: ARCH 40402.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 45591 SEMINAR: ENVIRONMENTAL TECHNOLOGY III 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 55591) Variable topics in environmental technology, environmental design and energy conservation, advanced lighting techniques etc.

Prerequisite: ARCH 40502.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 45601 ADVANCED COMPUTER APPLICATIONS 1-3 Credit Hours

(Slashed with ARCH 55601) Course discusses advanced visualization techniques such as raytracing, radiosity and animation. Presents a variety of presentation issues and options.

Prerequisite: Approved admission to third year; and special approval.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 45620 INTRODUCTION TO PRESERVATION 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 55620)

An overview of preservation, including building analysis, conservation, adaptive reuse, economic benefits of preservation and preservation planning as a revitalizing strategy.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45625 EXPLORING HISTORIC STRUCTURES 3 Credit Hours

(Slashed with ARCH 55625) Course provides students with the skills and opportunity to document an historic structure using methods prescribed by the Historic American Buildings Survey (HABS). Covers recording, documentation and assessment of the historic structure, implementing the guidelines established by the Getty Conservation Institute, including history, purpose, means, methods and field work.

Prerequisite: Junior standing and approved admission to advanced study (third year).

Schedule Type: Laboratory, Lecture

Contact Hours: 1.2 lecture, 3.6 lab

Grade Mode: Standard Letter

ARCH 45627 PRESERVATION TECHNOLOGY 3 Credit Hours

(Slashed with ARCH 55627) Study of historic building materials with an emphasis on causes of degradation, strategies for conservation and standards for restoration.

Prerequisite: Junior or senior standing; and Architecture major.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 45630 INTRODUCTION TO LANDSCAPE ARCHITECTURE 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 55630)

Introduction to landscape design with emphasis upon the relationship between landscape and buildings.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45631 SITE ANALYSIS AND DESIGN 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 55631)

Analysis of environmental factors as a basis for site selection and site planning.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45640 DEVELOPING ENVIRONMENTS FOR OLDER ADULTS 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 55640)

Research of existing built environments and an investigation of the planning design process for the elderly.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45703 THEORIES AND PRINCIPLES OF URBAN DESIGN 1-3 Credit Hours

(Repeatable for maximum 3 credit hours) Course on the nature and utility of theory in urban design, examining the relationship between design ideologies and the theories of the environment on which they are based.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45704 THEORIES AND PRINCIPLES OF URBAN DESIGN II 1-3 Credit Hours

(Repeatable for maximum 3 credit hours) Focuses on the relationship between design ideologies or theories and the realities of existing spatial relationships or precedents.

Prerequisite: Special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 45793 WORKSHOP IN URBAN DESIGN AND PLANNING 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45793)

Course provides an introduction to the scope of planning and design in the making of quality urban neighborhoods, with a particular emphasis on the role of urban design, architecture and landscape design.

Prerequisite: None.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 46991 SEMINAR: VARIABLE TOPIC 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 56991) Variable topic seminar.

Prerequisite: approved admission to advanced study (third year).

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 46992 FIELD STUDY (ELR) 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 56992) Variable topic field experience.

Prerequisite: Approved admission to advanced study (third year).

Schedule Type: Field Experience

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ARCH 46993 WORKSHOP: VARIABLE TOPIC 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 56993) Variable topic workshop.

Prerequisite: Approved admission to advanced study (third year).

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 46995 SPECIAL TOPICS IN ARCHITECTURE 1-3 Credit Hours
(Repeatable for credit)(Slashed with ARCH 56995) Special topics in architecture.

Prerequisite: Approved admission to advanced study (third year).

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter-IP

ARCH 46996 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Student-initiated experience to pursue an area of interest not covered by a regular course offering, with the guidance of a Kent State faculty member.

Prerequisite: Special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 50001 SUSTAINABLE DESIGN 1 Credit Hour

(Slashed with ARCH 40001) Research component addressing precedents, traditions, current directions in conservation of natural environment. Principles and methods of ecological design in architecture and urban design.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 50002 SYSTEMS DESIGN 1 Credit Hour

(Slashed with ARCH 40002) Lecture and research component addressing comprehensive integration of mechanical, electrical communications structural life safety systems and sustainable design concerns.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ARCH 50093 VARIABLE TITLE WORKSHOP IN ARCHITECTURE 1-6 Credit Hours

(Repeatable for credit) Workshop topic varies per course offering.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-6 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 50101 FOURTH-YEAR DESIGN STUDIO I 5 Credit Hours

(Slashed with ARCH 40101) Studio investigation of complex formal and spatial constructs addressing the comprehensive concerns of architecture. Special emphasis on understanding the conservation of the natural environment. Knowledge of CAD is required.

Prerequisite: ARCH 30102 or ARCH 30112; and Graduate standing.

Corequisite: ARCH 50001.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

ARCH 50102 INTEGRATED DESIGN STUDIO 5 Credit Hours

(Slashed with ARCH 40102) Studio investigation of the comprehensive concerns and understanding of building systems integration. Knowledge of CAD is required.

Prerequisite: Graduate standing.

Corequisite: ARCH 50002.

Schedule Type: Studio

Contact Hours: 5 other

Grade Mode: Standard Letter

ARCH 50301 STRUCTURAL SYSTEMS I 3 Credit Hours

(Slashed with ARCH 40301) A continuation of building structures, statics strength of materials and systems analysis. Emphasis is on elastic materials, allowable stresses and design for wood and steel structural members and systems.

Prerequisite: ARCH 20301; and Architecture major; and graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 50302 STRUCTURAL SYSTEMS II 3 Credit Hours

(Slashed with ARCH 40302) A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on inelastic materials, allowable stress, and design for masonry and concrete structural members and systems.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 50401 METHODS AND MATERIALS I 3 Credit Hours

(Slashed with ARCH 40401) Introduction to the origins, extraction, properties and processing of the basic materials of construction. Primary focus on wood and masonry-appropriate use and scale including code requirements, methods of construction and design consequences.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 50402 METHODS AND MATERIALS II 3 Credit Hours

(Slashed with ARCH 40402) Continued investigation of the origins, extraction, properties and processing of the basic materials of construction. Primary focus on concrete and steel-appropriate use and scale, including allied systems and building materials. Introduction to construction contract documents.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 50501 ENVIRONMENTAL TECHNOLOGY I 3 Credit Hours

(Slashed with ARCH 40501) Basic principles of ecological design and architecture environmental systems including lighting, sonic and thermal systems.

Prerequisite: PHY 13012; and Architecture major; and approved admission to advanced study (third year); and graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 4.5 other

Grade Mode: Standard Letter

ARCH 50502 ENVIRONMENTAL TECHNOLOGY II 3 Credit Hours

(Slashed with ARCH 40502) Ecological design of large buildings. Investigation and analysis of lighting, thermal, water, electrical and waste systems in urban settings.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 55101 FIFTH-YEAR DESIGN STUDIO I 6 Credit Hours

Students investigate a new scale of environmental issues that integrate both architectural and urban planning. Included are site visits, data collection, design of a master plan and an architectural form response to a segment of the total conceptual plan.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ARCH 55102 FIFTH-YEAR DESIGN STUDIO II 3-6 Credit Hours

(Repeatable for maximum 6 credit hours) Advanced design studio emphasizing comprehensive and independent investigation. Explores and manifests ideas through architecture using competition and hypothetical or real projects as vehicles of expression.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 55210 RENAISSANCE ARCHITECTURE 3 Credit Hours

(Slashed with ARCH 45210) History and theory of Renaissance architecture from 1400 until 1600.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55211 BAROQUE ARCHITECTURE 3 Credit Hours

(Slashed with ARCH 45211) History and theory of architecture in Europe from 1600 through 1750.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55213 20TH CENTURY ARCHITECTURAL HISTORY 3 Credit Hours

(Slashed with ARCH 45213) History and theory of architecture during the 20th century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55220 AMERICAN ARCHITECTURE: COLONIAL TO 1900 3 Credit Hours

(Slashed with ARCH 45220) History of American architecture for Spanish, French, Dutch and English colonization through the 19th century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55230 FRANK LLOYD WRIGHT 3 Credit Hours

(Slashed with ARCH 45230) Examination of the life, buildings and literary works of Frank Lloyd Wright with emphasis on his contributions to American art and architecture and his place in American intellectual history.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55240 THE SKYSCRAPER 3 Credit Hours

(Slashed with ARCH 45240) A study of skyscrapers from the standpoint of architectural, financial, structural, psychological and technological considerations. Emphasis is placed on the early developments in Chicago and New York, the influence of the international style and the current trends in ultra-high skyscrapers built outside the United States.

Prerequisite: Minimum C grade in ARCH 10111 and ARCH 20112; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55241 ARCHITECTURE OF WORLD'S FAIRS 3 Credit Hours

(Slashed with ARCH 45241) Students investigate world's fairs and related expositions as a cultural phenomenon, an urban design challenge and an opportunity to advance and popularize ideas in architecture and design.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55291 SEMINAR: VARIABLE TOPICS IN ARCHITECTURAL HISTORY 1-3 Credit Hours

(Repeatable for credit) (Slashed with ARCH 45291) Content within architectural history varies per course offering.

Prerequisite: Graduate standing and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 55391 SEMINAR: STRUCTURES III 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 45391) A continuation of building structures, statics, strength of materials and systems analysis. Emphasis is on complex systems, including horizontal long span and high rise structures. Computer analysis is required.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 55491 SEMINAR: METHODS AND MATERIALS III 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 45491) Advanced topics in methods and complex materials systems. Computer modeling and field experiences are required.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 55591 SEMINAR: ENVIRONMENTAL TECHNOLOGY III 1-3 Credit Hours

(Repeatable for credit) (Slashed with ARCH 45591) Variable topics in environmental technology, environmental design and energy conservation, advanced lighting techniques, etc.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 55601 ADVANCED COMPUTER APPLICATIONS 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45601)
Course discusses advanced visualization techniques such as raytracing, radiosity and animation. Presents a variety of presentation issues and options.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 55620 INTRODUCTION TO PRESERVATION 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45620)
An overview of preservation, including building analysis, conservation, adaptive reuse, economic benefits of preservation and preservation planning as a revitalizing strategy.

Prerequisite: Graduate standing and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 55625 EXPLORING HISTORIC STRUCTURES 3 Credit Hours

(Slashed with ARCH 45625) Course provides students with the skills and opportunity to document an historic structure using methods prescribed by the Historic American Buildings Survey (HABS). Covers recording, documentation and assessment of the historic structure, implementing the guidelines established by the Getty Conservation Institute, including history, purpose, means, methods and field work.

Prerequisite: Major in the College of Architecture and Environmental Design; and graduate standing.

Schedule Type: Laboratory, Lecture

Contact Hours: 1.2 lecture, 3.6 lab

Grade Mode: Standard Letter

ARCH 55627 PRESERVATION TECHNOLOGY 3 Credit Hours

(Slashed with ARCH 45627) Study of historic building materials with an emphasis on causes of degradation, strategies for conservation and standards for restoration.

Prerequisite: Minimum C grade in ARCH 40401 and ARCH 40402; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 55630 INTRODUCTION TO LANDSCAPE ARCHITECTURE 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45630)
Introduction to landscape design with emphasis upon the relationship between landscape and buildings.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 55631 SITE ANALYSIS AND DESIGN 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45631)
Analysis of environmental factors as a basis for site selection and site planning.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 55640 DEVELOPING ENVIRONMENTS FOR OLDER ADULTS 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45640)
Research of existing built environments and an investigation of the planning design process for the elderly.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 55793 WORKSHOP IN URBAN DESIGN AND PLANNING 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 45793)
Course provides an introduction to the scope of planning and design in the making of quality urban neighborhoods, with a particular emphasis on the role of urban design, architecture and landscape design.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 56991 SEMINAR: VARIABLE TOPIC 1-3 Credit Hours

(Repeatable for credit) (Slashed with ARCH 46991) Variable topic seminar.

Prerequisite: Graduate standing and special approval.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 56992 FIELD STUDY 1-3 Credit Hours

(Repeatable for maximum 3 credit hours)(Slashed with ARCH 46992)
Field experience.

Prerequisite: Graduate standing and special approval.

Schedule Type: Field Experience

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 56993 WORKSHOP: VARIABLE TOPIC 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 46993) Field experience.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 56995 SPECIAL TOPICS IN ARCHITECTURE 1-3 Credit Hours

(Repeatable for credit)(Slashed with ARCH 46995) Special topics in architecture.

Prerequisite: Graduate standing and special approval.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter-IP

ARCH 60101 GRADUATE DESIGN STUDIO I 3-6 Credit Hours

Architectural studies related to buildings. Emphasis on spatial, aesthetic, environmental and functional factors in design.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60102 GRADUATE DESIGN STUDIO II 3-6 Credit Hours

Independent design project, completed under the direction of an individual adviser selected from the graduate faculty.

Prerequisite: ARCH 60101 and ARCH 60301; and graduate standing.

Corequisite: ARCH 60922.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60103 GRADUATE DESIGN STUDIO III 6-9 Credit Hours

Capstone studio (or master's project) aimed at further investigating building design issues both at a greater depth of complexity and by focusing on particular design aspects or areas of concentration.

Prerequisite: ARCH 60102 and ARCH 60150 and ARCH 60922; and graduate standing.

Schedule Type: Studio

Contact Hours: 6-9 other

Grade Mode: Standard Letter-IP

ARCH 60111 GRADUATE DESIGN FOUNDATIONS STUDIO 3-6 Credit Hours

Graduate-level introduction to the organizational principles and tools designers use to interpret and shape the build environment.

Prerequisite: Graduate Standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60112 GRADUATE DESIGN ARCHITECTURE STUDIO 3-6 Credit Hours

The introduction of a building design process that emphasizes the integration of program requirements with specific form typologies using architectural elements as the primary components to design shape, space, and form.

Prerequisite: Graduate Standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60113 GRADUATE DESIGN CONTEXT STUDIO 3-6 Credit Hours

Studio investigation that includes consideration of program, site, context, materiality and tectonics. Specific emphasis on understanding the influences of site, context and urban design, including the role of social and cultural influences on the built environment.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60114 GRADUATE DESIGN SYSTEMS STUDIO 3-6 Credit Hours

Studio investigation of comprehensive design concerns, including the integration of building systems and implementation of sustainable strategies.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

ARCH 60150 PROJECT PROGRAMMING 2-3 Credit Hours

Study and discussion of the notion of program in architecture and the principles of project programming. Case study analysis and preparation of a comprehensive program for an architectural project.

Prerequisite: ARCH 60101 and ARCH 60301; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter

ARCH 60211 GRADUATE GLOBAL HISTORY OF ARCHITECTURE I 3 Credit Hours

Global history of architecture from Neolithic times through the 16th Century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 60212 GRADUATE GLOBAL HISTORY OF ARCHITECTURE II 3 Credit Hours

Global history of architecture from the 17th century to the early 21st century.

Prerequisite: ARCH 60211; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 60301 THEORIES OF ARCHITECTURE 1-3 Credit Hours

(Repeatable for maximum 3 credit hours) In-depth analysis and discussion of contemporary architectural theories. Critical evaluation of major authors and architectural projects.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

ARCH 60601 TOOLS OF REPRESENTATION 3 Credit Hours

Introduction to the software used in the digital environment for modeling and representing architectural schemes. Course covers software interface, x,y,z coordinates and navigation, Nurbs modeling and mesh modeling. Enables students to design in three-dimension and represent massing studies, building details and develop architectural elements and site context.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 60602 TOOLS OF FABRICATION 3 Credit Hours

Course covers advanced three-dimensional modeling tools and the different methods for outputting digital models into the physical environment. Includes three-dimension printing, laser cutting, CNC milling and vacuum forming.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 60603 TOOLS OF SIMULATION 3 Credit Hours

Course covers two-dimensional and three-dimensional simulation platforms and the theory behind the tools to generate and simulate architectural ideas and environments. Animation techniques and robotic integration operate as the bridge between the digital and the physical environment.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 60604 TOOLS OF CODING 3 Credit Hours

Course covers visual parametric software and coding languages to generate and develop architectural ideas. Integrates the tools and theory of coding and parametric software and their evolution in the architecture field.

Prerequisite: Graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 3 other

Grade Mode: Standard Letter

ARCH 60922 METHODS OF INQUIRY IN ARCHITECTURAL STUDIES 2 Credit Hours

(Cross-listed with AED 60922 and LARC 60922) Provides a comprehensive coverage of architectural inquiry techniques, including qualitative and quantitative research methods and critical-thinking skills to help students better conduct and understand research.

Prerequisite: ARCH 60101 and ARCH 60301; and graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

ARCH 65001 PROFESSIONAL PRACTICE: REAL ESTATE AND DEVELOPMENT 2-4 Credit Hours

Introduction to the economic, social, ethical and legal impact on/ of development projects in both the public and the private sectors. Computer applications and case-studies analysis are required.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2-4 lecture

Grade Mode: Standard Letter

ARCH 65002 PROFESSIONAL PRACTICE: CONTRACT AND PLANNING LAW 2 Credit Hours

Course surveys laws relating to the practice of architecture and to dispute resolution, with emphasis on contract laws contrasted with laws of negligence and the standard of care in the profession. The planning law component surveys land use control mechanisms as seen through zoning, variances and practical applications.

Prerequisite: Architecture major and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

ARCH 65003 PROFESSIONAL PRACTICE: LEADERSHIP, ETHICS AND OFFICE MANAGEMENT 2-3 Credit Hours

Course discusses issues of professional leadership and examines architectural office structures. Management approaches, professional registration and practice, use of consulting engineers and financial management of an office in the context of the profession as business.

Prerequisite: ARCH 65002; and Architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2-3 lecture

Grade Mode: Standard Letter

ARCH 66199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Thesis students must register for a total of 6 hours.

Prerequisite: Graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ARCH 66299 THESIS II 2 Credit Hours

(Repeatable for credit) Following completion of 6 credit hours of Thesis I all graduate students must continuously register for Thesis II for all subsequent academic terms (including summer) until all degree requirements are met.

Prerequisite: 6 credit hours of ARCH 66199; graduate standing.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

ARCH 66892 PRACTICUM 1-3 Credit Hours

(Repeatable for credit) Practicum in the field.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 1-3 other

Grade Mode: Standard Letter

ARCH 66991 SEMINAR: VARIABLE TOPIC 1-4 Credit Hours

(Repeatable for credit) Seminar on a variable topic per course offering.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-4 other

Grade Mode: Standard Letter

ARCH 66992 FIELD STUDY 1-3 Credit Hours

(Repeatable for credit) Field study in architecture.

Prerequisite: Graduate standing.

Schedule Type: Field Experience

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ARCH 66993 WORKSHOP: VARIABLE TOPIC 1-3 Credit Hours

(Repeatable for credit) Variable topic workshop in architecture.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 1-3 other

Grade Mode: Satisfactory/Unsatisfactory

ARCH 66995 SPECIAL TOPICS IN ARCHITECTURE 1-4 Credit Hours

(Repeatable for credit) Special topics in architecture.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

ARCH 66996 INDIVIDUAL INVESTIGATION 1-3 Credit Hours

(Repeatable for credit) Individual investigation in architecture.

Prerequisite: Graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ARCH 66998 RESEARCH 2-6 Credit Hours

(Repeatable for credit) Research in architecture.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 2-6 other

Grade Mode: Standard Letter

ARCH 67510 SUSTAINABLE BUILDING CONSTRUCTION I 3 Credit Hours

First course of a two-course sequence. Provides an in-depth survey of design, pre- and post-construction activities pertinent to green building and sustainable design of the built environment. Reviews fundamental concepts and principles of sustainable building design and construction with special emphasis on construction site issues. Provides a comprehensive review of impact of site on construction and building design on the site and its resources. Focus is on understanding the role building design and construction play on resources efficiency and minimizing the impact of construction activities on the environment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ARCH 67511 SUSTAINABLE BUILDING CONSTRUCTION II 3 Credit Hours

Second course of a two-course sequence. Provides an in-depth survey of design, pre- and post-construction activities pertinent to green building and sustainable design of the built environment. Reviews fundamental concepts and principles of sustainable building design and construction with special emphasis on building systems. Provides a comprehensive review of impact of building component, materials and systems on design and construction of High-performance buildings. Focus is on understanding the role building design and construction play on resources efficiency and minimizing the impact of construction activities on the environment.

Prerequisite: ARCH 67510; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Architecture and Environmental Design (AED)

AED 10001 DESIGN THINKING I 2 Credit Hours

Provides a broad, interdisciplinary introduction to design culture and the visualization of ideas and information through observations of the object in space.

Prerequisite: Architecture, Architectural Studies or Interior Design major.

Corequisite: AED 10101.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

AED 10002 DESIGN THINKING II 2 Credit Hours

Explores the role of design in society with a focus on purpose and meaning of form and space in relation to the human body.

Prerequisite: AED 10001; and Architecture, Interior Design, or Architectural Studies major.

Corequisite: AED 10102.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

AED 10101 DESIGN FOUNDATIONS STUDIO I 3 Credit Hours

Introduction to the organizational principles and tools designers use to interpret and shape the built environment.

Prerequisite: Architecture, Architectural studies or Interior Design major.

Corequisite: AED 10001.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

AED 10102 DESIGN FOUNDATIONS STUDIO II 3 Credit Hours

A continued exploration of the organizational principles and tools designers use to interpret and shape the built environment.

Prerequisite: AED 10101; and Architecture, Interior Design or Architectural Studies major.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

AED 60922 METHODS OF INQUIRY IN ARCHITECTURAL STUDIES 2 Credit Hours

(Cross-listed with ARCH 60922 and LARC 60922) Provides a comprehensive coverage of architectural inquiry techniques, including qualitative and quantitative research methods and critical-thinking skills to help students better conduct and understand research.

Prerequisite: Graduate standing.

Corequisite: AED 60923.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

AED 60923 EMPIRICAL RESEARCH IN ENVIRONMENTAL DESIGN 1 Credit Hour

(Cross-listed with LARC 60923) Introduces a student to faculty-directed research in a field with the environmental design domain. Typically, the course will include lectures by research faculty, readings from primary and review literature, and regular discussions among students, faculty and other research associates working under the direction of a principal investigator.

Prerequisite: Graduate standing; and special approval.

Corequisite: AED 60922.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

AED 60930 APPLIED RESEARCH METHODS IN ARCHITECTURE AND ENVIRONMENTAL DESIGN 3 Credit Hours

Addresses ontological and epistemological underpinnings of applied research methods in the environmental design fields. It is intended to extend students' understanding of quantitative and qualitative research methods, data collection, analysis and interpretation.

Prerequisite: Minimum B- grade in the following courses AED 60922 and 60923; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

AED 66098 TOPICAL IMMERSION 3 Credit Hours

(Repeatable for credit) Introduction to specialized topics, literature, techniques, and research methodologies with an individual faculty member.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 9 other

Grade Mode: Standard Letter

AED 66198 ADVANCED PROPOSAL WRITING 2 Credit Hours

(Repeatable for credit) Supports students' development of research topics, review of relevant research and scholarship, framing of research questions and arguments, selection of an appropriate methodology for analysis and submission of a draft introductory and methodology sections of the proposal document.

Prerequisite: AED 60922 and AED 60923 and AED 60930 and ARCH 60301; and graduate standing; and special approval.

Schedule Type: Research

Contact Hours: 6 other

Grade Mode: Standard Letter

AED 66199 THESIS I 2-6 Credit Hours

(Repeatable for credit) Research and writing activities in the performance of thesis study; highly individualized investigative study that results in the development and writing of a scholarly, comprehensive paper. Thesis students must register for a total of 6 credit hours, 2 to 6 credit hours in a single semester distributed over several semesters if desired.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2-6 other

Grade Mode: Satisfactory/Unsatisfactory-IP

AED 66299 THESIS II 2 Credit Hours

Following completion of 6 credit hours of Thesis I all graduate students must continuously register for Thesis II for all subsequent academic terms (including summer) until all degree requirements are met.

Prerequisite: 6 credit hours of AED 66199; and graduate standing; and special approval.

Schedule Type: Masters Thesis

Contact Hours: 2 other

Grade Mode: Satisfactory/Unsatisfactory-IP

AED 66995 SPECIAL TOPICS IN ENVIRONMENTAL DESIGN 1-4 Credit Hours

(Repeatable for credit) Special topics in environmental design and science.

Prerequisite: Graduate standing.

Schedule Type: Lecture, Seminar, Workshop

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

Construction Management (CMGT)

CMGT 10001 INTRODUCTION TO CONSTRUCTION MANAGEMENT 3 Credit Hours

Serves to introduce the basic terms, concepts, procedures and current trends in the construction industry.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 11044 CONSTRUCTION SAFETY 3 Credit Hours

The theories and principles of construction safety and health applied to real-world setting. Upon completion of course materials and required attendance hours, students receive their OSHA 30 certification.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: CTAG Construction Technology

CMGT 11071 CONSTRUCTION MATERIALS AND METHODS I 3 Credit Hours

An introduction to principles of building construction, including preparation for the structures and environmental control sequences. Includes a more detailed and systematic look at wood light-frame construction.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: CTAG Construction Technology, TAG Engineering Technology

CMGT 21071 CONSTRUCTION MATERIALS AND METHODS II 3 Credit Hours

Ties together steel and concrete structural systems and the integration of building service systems, with a focus on the construction and detailing of building enclosure systems.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 22200 CONSTRUCTION DOCUMENT READING 3 Credit Hours

The reading and understanding of the drawings that are used to communicate information about commercial and residential buildings.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: CTAG Construction Technology

CMGT 27210 SUSTAINABILITY IN THE BUILT ENVIRONMENT 3 Credit Hours

With broad coverage including architecture, engineering, and construction, this course nevertheless delivers detailed information on all aspects of the green building process, from materials selection to building systems and more.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab, 0 other

Grade Mode: Standard Letter

CMGT 31015 CONSTRUCTION TECHNOLOGY 3 Credit Hours

Course provides basic concepts and practices of the construction industry, including estimating, materials, tools, techniques and production of residential construction.

Prerequisite: None.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1 lecture, 4 lab

Grade Mode: Standard Letter

CMGT 31023 CONSTRUCTION SURVEYING 3 Credit Hours

The study of surveying, including fieldwork, using state-of-the-art equipment and its relationship to the construction documents.

Prerequisite: CMGT 22200.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

Attributes: TAG Engineering Technology

CMGT 31033 MECHANICAL SYSTEMS 3 Credit Hours

An overview of mechanical systems in commercial and residential buildings.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 31040 ELECTRICAL SYSTEMS FOR CONSTRUCTION MANAGERS 3 Credit Hours

An overview of electrical systems in commercial and residential buildings.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 31044 ADVANCED CONSTRUCTION SAFETY AND MANAGEMENT 3 Credit Hours

Course enables students to be able to properly manage the construction safety techniques and practices they learned in CMGT 11044. Course provides the opportunity for students to learn how to utilize management skills to lead and implement an effective construction safety program.

Prerequisite: CMGT 11044.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 31045 CONSTRUCTION RISK MANAGEMENT 3 Credit Hours

Course provides an in-depth study of various risks associated with construction projects, and how those risks affect the construction industry. Topics of discussion include analytical and management techniques used to identify, analyze and respond to risks. Students review actual legal case studies and develop written opinion papers.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 31046 INTRODUCTION TO INSURANCE AND WORKER'S COMPENSATION 3 Credit Hours

Introduction to construction-related insurance products and worker's compensation practices and policies. Course provides the understanding of the legal, management and costing implications associated with each of these, both prior to and during a construction project.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 32001 PROPOSAL DEVELOPMENT AND ANALYSIS 3 Credit Hours

(Repeatable for credit) Students create and combine project management, safety and quality control plans to prepare quantity takeoffs and schedule for a construction project, in the form of a construction proposal and presentation. Further analysis is done on general construction proposals.

Prerequisite: CMGT 10001; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 33092 CONSTRUCTION MANAGEMENT INTERNSHIP (ELR) (WIC) 2-3 Credit Hours

(Repeatable for maximum of 6 credit hours) Supervised work-study experience in an approved construction-related business that is relative to a student's program. The course can be taken for 3 credit hours in the semester for full-time employment (450+ total hours) or 2 credit hours for part-time employment (300-450 total hours). To repeat the course for credit, the student must assume a different position or responsibilities if employed by the same organization, or the student must be employed by a different company.

Prerequisite: Minimum 2.250 overall GPA; and Construction Management major or minor; and sophomore standing.

Pre/corequisite: CMGT 11044.

Schedule Type: Practical Experience

Contact Hours: 20-30 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement, Writing Intensive Course

CMGT 33111 INTRODUCTION TO BUILDING STRUCTURES 3 Credit Hours

Introduction to Building Structures covers the basic concepts of vector mechanics and statics with their application to the relationship between applied forces and internal effects as utilized in either the selection or investigation of structural members subjected to various loading conditions

Prerequisite: PHY 13001 or PHY 23101.

Schedule Type: Lecture

Contact Hours: 3 lecture, 0 lab

Grade Mode: Standard Letter

CMGT 37295 SPECIAL TOPICS IN CONSTRUCTION MANAGEMENT 1-3 Credit Hours

Analysis of significant and current issues in construction management not covered in regular courses. Offered when opportunities and resources permit; the topic is announced when the course is scheduled.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CMGT 40095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) The course content is dependent on the special topics content.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CMGT 41040 CONSTRUCTION ESTIMATING I 3 Credit Hours

(Slashed with CMGT 51040) Introduction to estimating and the quantity takeoff process needed to complete accurate estimates for all types of construction projects. Students must have the ability to read and understand construction drawings.

Prerequisite: CMGT 11071 and CMGT 21071 and CMGT 22200.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 41041 CONSTRUCTION ESTIMATING II 3 Credit Hours

(Slashed with CMGT 51041) Course covers putting costs to the project, finalizing the bid, incorporating the estimate into the schedule, buying out the project, bidding ethics and using computer spreadsheets, including Excel, to automate estimating functions.

Prerequisite: CMGT 41040.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 41047 FUNDAMENTALS OF INDUSTRIAL AND CONSTRUCTION HYGIENE 3 Credit Hours

Focuses on the environmental, community and occupational health issues within facilities and construction sites. Course provides the opportunity for students to recognize, evaluate and control occupational hazards.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 41048 OCCUPATIONAL SAFETY AND HEALTH LAW 3 Credit Hours

Course focuses on general legal doctrine and practical considerations of the Occupational Safety and Health Act (OSHA). Covers the scope of the act, duties under the act, enforcement, adjudication and OSHA-related litigation.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42030 BUILDING INFORMATION MODELING FOR CONSTRUCTION MANAGEMENT 3 Credit Hours

This course is intended to apply Building Information Modeling tools in a meaningful manner within the field of Construction Management. The course will progress through the core concepts of widely used VDC tools: Sketchup, Revit, Navisworks. The key areas of focus will be conceptualizing projects, quantity takeoff, scheduling, and constructability review. Class time will involve hands-on training and exercises that will simulate real-world situations and deadlines. Complexity levels in the models will be minimized to ensure focus on concepts. Students will have multiple opportunities to hone their presentation skills with their projects through the course progression.

Prerequisite: CMGT 22200.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42050 INTERNATIONAL CONSTRUCTION MANAGEMENT 3 Credit Hours

Course focuses on the culture and management of international design and construction operations, with an emphasis on business development, financing, planning, contracts and negotiations, special construction techniques in adverse environments, procurement and logistics. A short-term study abroad trip is included in the course.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42051 ALTERNATIVE ENERGY SYSTEMS IN BUILDING DESIGN 3 Credit Hours

Course focuses on the construction application of alternative mechanical, electrical and plumbing systems in the built environment. Emphasis on energy efficient systems, energy conservation, cost benefits, building issues and construction techniques to develop these systems.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42052 MECHANICAL AND ELECTRICAL ESTIMATING 3 Credit Hours

Course focuses on estimating mechanical, electrical, plumbing and fire protection systems for the built environment. Covers detailed estimating practices of mechanical systems, including indirect costs, direct costs, bidding strategies, piping, pumps, plumbing systems, fire protection, HVAC, ductwork, insulation, automatic temperature controls, supports and manpower.

Prerequisite: CMGT 31033 and CMGT 31040.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42053 SUBCONTRACTOR LEADERSHIP AND PRACTICES 3 Credit Hours

Course focuses on the leadership, operations and overall management of construction subcontractor companies. Emphasis on how subcontractor leaders can avoid mistakes and manage risk to make their scopes of work run more intelligently, effectively and efficiently.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42054 CIVIL ESTIMATING 3 Credit Hours

Course provides an in-depth review and application of civil construction estimating techniques and technology associated with civil estimating practices. Course covers site work, site utilities, substructures and heavy equipment estimating.

Prerequisite: CMGT 10001 and CMGT 41040.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42055 CIVIL UTILITY SYSTEMS 3 Credit Hours

Course discusses the installation, construction, renewal, estimating and management of underground utility systems. Maintains an emphasis on minimal soil and environmental disturbance.

Prerequisite: CMGT 10001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42056 SOILS AND MATERIALS 3 Credit Hours

Building on previous knowledge of construction, students explore the nature of soils and how they can influence construction operations, soil safety, soils within the construction contract, soil classifications, soil strengths and specification sections tied to soils and materials.

Prerequisite: CMGT 10001.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: TAG Engineering Technology

CMGT 42105 CONSTRUCTION CONTRACTS AND LAW 3 Credit Hours

(Slashed with CMGT 52105) Course covers the fundamentals of construction contracts and law; the impact of information technology on contracts and contracting; and the effect of contracts and law on the management, administration and costs of construction work.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 42107 CONSTRUCTION SCHEDULING 3 Credit Hours

(Slashed with CMGT 52107) The traditional theory of planning, scheduling and controlling construction projects. Current industry standard computer applications for scheduling are utilized.

Prerequisite: CMGT 41041.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 43096 INDIVIDUAL INVESTIGATION IN CONSTRUCTION MANAGEMENT 1-3 Credit Hours

(Repeatable for credit) Independent study carried out by a student under the supervision of a faculty member. Subject content, objectives, assignments and evaluation methods may vary.

Prerequisite: Junior standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter

CMGT 43099 CONSTRUCTION MANAGEMENT CAPSTONE (ELR) 3 Credit Hours

The application of all previous construction management courses and experiences to ensure all major learning objectives have been obtained, and that these learning objectives can be applied to performance similar to industry practices.

Prerequisite: CMGT 31033 and CMGT 31040 and CMGT 41041 and CMGT 42105 and CMGT 42107; and senior standing.

Schedule Type: Lecture, Project or Capstone

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

CMGT 50095 SPECIAL TOPICS 1-3 Credit Hours

(Repeatable for credit) Various content based on the special topics content.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

CMGT 51040 CONSTRUCTION ESTIMATING I 3 Credit Hours

(Slashed with CMGT 41040) Introduction to estimating and the quantity takeoff process needed to complete accurate estimates for all types of construction projects. Students must have the ability to read and understand construction drawings.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 51041 ADVANCED ESTIMATING 3 Credit Hours

(Slashed with CMGT 41041) Course covers putting costs to the project, finalizing the bid, incorporating the estimate into the schedule, buying out the project, bidding ethics and using computer spreadsheets, including Excel, to automate estimating functions.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 52105 CONSTRUCTION CONTRACTS AND LAW 3 Credit Hours

(Slashed with CMGT 42105) Course covers the fundamentals of construction contracts and law; the impact of information technology on contracts and contracting; and the effect of contracts and law on the management, administration and costs of construction work.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 52107 CONSTRUCTION SCHEDULING 3 Credit Hours

(Slashed with CMGT 42107) The traditional theory of planning, scheduling and controlling construction projects. Current industry standard computer applications for scheduling are utilized.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 52110 ADVANCED CONSTRUCTION MANAGEMENT 3 Credit Hours

A comprehensive application of construction management principles and practices to various situations and projects according to construction industry methods and performance standards.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62030 BUILDING INFORMATION MODELING FOR CONSTRUCTION MANAGEMENT 3 Credit Hours

Course reinforces and investigate the usage of building information modeling (BIM) as a construction management tool. Students create BIM models, with scheduling and cost loading, to understand how BIM usage is maximized within the built environment. Student utilizes software applications to create the BIM model and integrate the construction schedule and estimate. Students also perform research on the application of BIM in the industry.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62040 CONSTRUCTION METHODS IMPROVEMENTS 3 Credit Hours

A focused study of the philosophy and principles of quality management as applied to the construction industry. Course presents a project-based approach to the principles and practices of Total Quality Management (TQM) in construction projects and the application of TQM and other quality measures during different phases of the construction process.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62050 INTERNATIONAL CONSTRUCTION MANAGEMENT 3 Credit Hours

Topics include operating and sustaining an international business or business presence, the global market, project funding, case studies and best practices. Course includes project-specific case studies.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62060 NEGOTIATION IN THE BUILT ENVIRONMENT 3 Credit Hours

Examination of negotiation theories, strategies and tactics as applied to transactions in the construction and technological environments. Establishment of win-win environment in dealing with the project parties by adopting creative means to solve problems and resolve disputes. Practice through negotiation case studies, scenarios and role playing.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62070 ENGINEERING ECONOMICS AND STRATEGIC DECISION MAKING 3 Credit Hours

Application of engineering economic principles related to evaluating alternative solutions, replacement decisions and retention decisions. Includes decision and risk analysis, sensitivity analysis, expected value, benefit cost analysis, public sector economics, economic cycle, operation research, strategic management and entrepreneurship in the technological environment.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 62080 ADVANCED CONSTRUCTION RISK MANAGEMENT 3 Credit Hours

This course provides an in-depth study of various risks associated with construction projects, and how those risks affect the construction industry. This course prepares leaders to make decisions that affect individual projects and the organization as a whole. Topics of discussion include analytical and management techniques used to identify, analyze, and respond to construction risks. Students review case studies, texts, and use instructor examples of how to identify and mitigate risks.

Prerequisite: Graduate Standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 65099 MASTER PROJECT IN CONSTRUCTION MANAGEMENT 3 Credit Hours

This course is the application of all previous construction management courses and experiences to ensure all major learning objectives have been obtained, and that these learning objectives can be applied to performance similar to industry best practices.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 lecture

Grade Mode: Standard Letter

CMGT 67295 SPECIAL TOPICS IN CONSTRUCTION MANAGEMENT 1-4 Credit Hours

Analysis of significant and current issues in construction management not covered in regular courses. Offered when opportunities and resources permit; the topic is announced when the course is scheduled.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

CMGT 67296 INDIVIDUAL INVESTIGATION IN CONSTRUCTION MANAGEMENT 1-3 Credit Hours

Independent study carried out by a student under the supervision of a faculty member. Subject content, objectives, assignments and evaluation methods may vary.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 3-9 other

Grade Mode: Standard Letter-IP

CMGT 67320 APPLIED SUSTAINABILITY IN CONSTRUCTION MANAGEMENT 3 Credit Hours

Investigation of strategies and methods used by construction managers and others to assist in developing sustainable built environments. Course takes a close look at standards for environmentally sustainable construction and at the application of best management practices for construction activities. Focus is on LEED certification, international standards on environmental management systems and other established criteria, guidelines, standards and tools associated with green building. Provides an in-depth discussion and practical application of LEED assessment, guidelines and standards for various building sectors. Includes a major individual design project/case study involving research in green construction and design on a particular construction project, along with the application of LEED guidelines, assessment and methods to the project.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

Healthcare Design (HCD)

HCD 60000 HEALTHCARE DESIGN STUDIO 6 Credit Hours

Course integrates and applies expert knowledge in healthcare design. Projects demonstrate solutions through design, case study analysis and in collaboration with industry and healthcare partners.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

HCD 60092 PRACTICAL EXPERIENCE 1 Credit Hour

Course offers students multiple options that allow for first-hand experience with a healthcare facility design project or environment; and to develop professional communication skills, job search skills and how to navigate starting a career in healthcare design.

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 1 other

Grade Mode: Standard Letter

HCD 60100 HEALTHCARE SYSTEMS WORKSHOP 3 Credit Hours

Course integrates the knowledge-base gained in other core courses into design evaluations and solutions, helping students apply what they have learned in practice. Focus is on learning about other healthcare systems, design trends and research applications. Students deliver a design project and/or a report of the field trip.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 3 other

Grade Mode: Standard Letter

HCD 60101 HEALTHCARE DESIGN WORKSHOP: CULTURE AND ETHICS 3 Credit Hours

Course integrates the knowledgebase gained in other courses into design evaluations and solutions, helping students apply what they have learned in practice. Focus is on a small design project.

Prerequisite: Graduate standing.

Schedule Type: Workshop

Contact Hours: 3 other

Grade Mode: Standard Letter

HCD 61099 MASTER'S PROJECT RESEARCH 3 Credit Hours

Students learn research methods, evaluate precedents and conduct a guided research study investigating specific design goals and parameters in preparation for their individual master's project. They learn to use and apply research and evidence in the healthcare design process. Students use their findings to establish and define design guidelines that help inform their master's projects.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Project or Capstone

Contact Hours: 3 other

Grade Mode: Standard Letter

HCD 62099 MASTER'S PROJECT STUDIO 6 Credit Hours

Focused on an individual student's defined master's project topic. Projects will include site selection, site analysis, and demonstrate creative solutions through design. The course concludes in the design of the topic established in Master's Project Preparation. This is the culminating course for the master's degree in Healthcare Design. This course will be overseen by the course instructor in collaboration with design practitioners.

Prerequisite: HCD 61099; and graduate standing; and special approval.

Schedule Type: Project or Capstone, Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

HCD 63001 EVIDENCE-BASED DESIGN IN HEALTHCARE 2 Credit Hours

Course offers the knowledge and skills required for applied research, and the use of credible data in the design decision-making process. Encompasses the evidence-based design (EBD) process, and how it applies in projects.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

HCD 63002 HEALTHCARE FACILITIES 2 Credit Hours

An investigation of the history and types of healthcare facilities, design guidelines and basic planning and programming requirements for their planning and design.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

HCD 63003 ENVIRONMENTAL SYSTEMS AND MATERIALS IN HEALTHCARE 2 Credit Hours

An investigation of architectural finishes, furnishings, mechanical systems and lighting in healthcare settings.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

HCD 63004 ENVIRONMENTS OF CARE AND PATIENT POPULATIONS 2 Credit Hours

Course explores the functional, operational and person psychosocial requirements for different patient populations. Focus is on how design can respond to specific patient population needs.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

HCD 63005 PATIENT SAFETY AND SYSTEMS THINKING 2 Credit Hours

Course introduces systems engineering initiative for patient safety as a major interdisciplinary approach known as systems thinking. Covers the basics of human factors in healthcare and the interactive relationship between humans and the environment; including the factors contributing to patient safety in healthcare settings, and the role environments play in patient safety.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

Interior Design (ID)

ID 10112 INTERIOR DESIGN STUDIO I 4 Credit Hours

A studio course that introduces students to foundational concepts of interior space. Topics will include studies of room and its contents; color theory and interior color; design and human behavior; representation through sketching, orthographic drawing, collage, and model building; and digital techniques. Design thinking and iterative design work-process will be emphasized.

Prerequisite: AED 10101 and ID 14011.

Pre/corequisite: ID 10601.

Schedule Type: Studio

Contact Hours: 8 other

Grade Mode: Standard Letter

ID 10601 REPRESENTATION AND VISUALIZATION I 2 Credit Hours

This course introduces analog and digital representation and visualization skills and tools as they relate to the design of interior environments. Students will gain an understanding of and be able to apply knowledge and skills of visualization, observation, documentation, introductory orthographic representation, and graphic design.

Prerequisite: AED 10101.

Pre/corequisite: ID 10112.

Schedule Type: Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

ID 14011 INTRODUCTION TO INTERIOR DESIGN 1 Credit Hour

Introduction to a broad range of interior design issues including environmental, ecological, aesthetic, social, global, spatial, ethical and technical, and addresses the needs of the human being related to interior design practice. Students acquire knowledge and understanding of significant aspects in interior design and diverse options within the profession, which helps them to identify their career paths in interior design.

Prerequisite: None.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

ID 14012 DESIGN AND HUMAN BEHAVIOR 3 Credit Hours

Introduces the concepts of human factors, the way in which humans relate to the physical environment within cultural milieus, and investigates applications of these factors in the design of interiors with consideration of specialized populations.

Prerequisite: ID 14011 with a minimum C grade.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 20012 GLOBAL HISTORY OF INTERIORS 3 Credit Hours

Global history of interiors from the 17th-century to the present. Interiors will be examined alongside developments in furnishings, fine and decorative arts, and architecture. The influence of culture, technology, geography, economics, politics, and style will be investigated.

Prerequisite: ARCH 10011.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 20221 INTERIOR DESIGN STUDIO II 5 Credit Hours

A studio course that builds on the foundation that students have developed in ID Studio I. Students will engage in making an idea, and develop an understanding of materials, joints, assembly, and their interrelationships. The studio will focus on an understanding of the room in the context of interior design with an emphasis on design process, creative thinking, and student agency (analysis, iteration, evaluation and groups crits). Throughout the semester students will gain a familiarity of both analog and digital shop tools.

Prerequisite: ID 10112 and ID 10601.

Pre/corequisite: ID 20602 and ID 20401.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 20232 INTERIOR DESIGN STUDIO III 5 Credit Hours

This studio course reflects a continuation in the development of skills, exploration, technical knowledge, and experimentation through design. Students will expand their ability to program spaces for human habitation, 'the body inside', and develop the initial skills for detailing, fabricating, and documenting interior components beyond schematic design. The objective of this course is to provide the opportunity to balance technical considerations with creative ambitions through design projects by focusing on analysis, synthesis, placemaking, space planning and understanding of volumetric relationships.

Prerequisite: ID 20221 and ID 20602.

Pre/corequisite: ID 20402.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 20401 INTERIOR DESIGN METHODS AND MATERIALS I: INTERIOR MATERIALS 3 Credit Hours

The focus of this course is to explore the methods and materials utilized in the design and construction of the interior environment. Topics include the industry standards and requirements that pertain to finishes and materials, composition of various interior materials/finishes, proper methods of application and installation of selected materials.

Prerequisite: ID 10112.

Pre/corequisite: ID 20221 and ID 20602.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 20402 INTERIOR DESIGN METHODS AND MATERIALS II: BUILDING SYSTEMS AND CODES 3 Credit Hours

This course is an introduction to the principles of building construction, systems, assemblies, and building codes and regulations. Topics include building structural systems, assemblies, environmental comfort, building safety, security, controls, and mechanical, electrical and plumbing systems that influence and interact with interior design. This course examines the principles, regulations, systems, materials and details that comply with building code and regulations. Study of the principles and practice of sustainable design are continued.

Prerequisite: ID 20401.

Pre/corequisite: ID 20232.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

ID 20602 REPRESENTATION AND VISUALIZATION II 2 Credit Hours

The course builds on the fundamental skills developed in Representation and Visualization I. Students are introduced to BIM technology as a design tool, utilizing a variety of three-dimensional representation and rendering techniques that focus on form, light, and materiality. Students will also learn how to effectively document design work three-dimensionally.

Prerequisite: ID 10601.

Pre/corequisite: ID 20221.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

ID 24001 INTERIOR DESIGN STUDIO I-SPACE PLANNING AND HUMAN FACTORS 3 Credit Hours

Focuses on space planning and the application of human factors to interior design solutions. Based on knowledge received in ID 14012 Design and Human Behavior, the following areas are incorporated into the studio projects: Americans with Disabilities Act; data gathering; space analysis and synthesis.

Prerequisite: ID 14012 with a minimum C grade.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ID 24002 INTERIOR DESIGN STUDIO II-DETAILING AND FABRICATION 3 Credit Hours

Focus is the understanding of detailing and fabrication in interior design that leads students to have a balanced ability between the creative and the technical abilities in design projects. Studies of architectural and interior design detailing, custom cabinetry, casework, joinery, millwork, fabrication, and FF&E are blended into each of the projects to instill a proficiency in construction execution. Usage of a 3D printer and laser cutter is introduced along with design projects.

Prerequisite: ID 24001 with a minimum C grade.

Schedule Type: Studio

Contact Hours: 6 other

Grade Mode: Standard Letter

ID 30321 INTERIOR DESIGN THEORY 3 Credit Hours

This course is an introduction to theoretical ideas in interior design and explores its conceptual relationships with other disciplines including art, architecture, fashion, environmental psychology, and the social sciences. Topics include: theories of the body in interior space, environmental psychology, sustainability, theories of technology, cultural studies, activist practice, and inclusive design. Readings will be drawn from both the humanities and social sciences.

Prerequisite: ID 20012.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 30331 DESIGN WRITING FOR INTERIORS (WIC) 1 Credit Hour

A writing-intensive course exploring the relationship between professional discourse, fiction, observational description, and the graphic novelization of interior environments. Writing strategies employed in the course include narrative fiction, observational description, and professional communication.

Prerequisite: ID 20221.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

Attributes: Writing Intensive Course

ID 30341 INTERIOR DESIGN STUDIO IV 5 Credit Hours

This course is an Introduction to large-scale commercial space design with an emphasis on ideation, branding, space planning, developing design strategies for comprehensive design, office systems furniture planning and development of workstation prototype, producing comprehensive construction documentation, and collaborative design through studio projects and lectures.

Prerequisite: ID 20232.

Pre/corequisite: ID 30603.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 30352 INTERIOR DESIGN STUDIO V 5 Credit Hours

A studio course focusing on the investigation of contexts of interior space. Topics will include studies of architectural and historical contexts, including adaptive reuse, urban contexts, and social and cultural contexts in a globalizing world. Emphasis will also be placed on the development of design strategies, and expressions of strategy across scales.

Prerequisite: ID 30341.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 30391 VARIABLE CONTENT SEMINAR IN INTERIOR DESIGN 3 Credit Hours

(Repeatable for credit) Intermediate-level topics in global interior design history or theory.

Prerequisite: ID 30321.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 30403 INTERIOR DESIGN METHODS AND MATERIALS III: LIGHTING AND ACOUSTICS 3 Credit Hours

This course explores the relationships between theory, technical application, social, environmental, and sustainable aspects for designing lighting and acoustical interior environments. The course addresses the fundamental design and technical aspects of the lighting and acoustics industries as they impact interior design.

Prerequisite: ID 20402.

Pre/corequisite: ID 30341.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 2 lecture, 2 lab

Grade Mode: Standard Letter

ID 30501 PROFESSIONAL PRACTICES I 3 Credit Hours

An overview of the professional practice of interior design and facilitates student's entry into the profession. Topics include - issue of legal recognition of the profession and licensing; types of business formations; control and management of projects and people; legal and ethical responsibilities; and opportunities within the design profession. Students will learn self-promotion tools like portfolio preparation, and valuable interview skills to uncover how they might position themselves professionally in the rapidly changing discipline of Interior Design.

Prerequisite: ID 30341.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 30603 REPRESENTATION AND VISUALIZATION III 2 Credit Hours

Builds on previous fundamentals taught in Rep Vis I & II, focusing on advanced rendering, and representation techniques. Includes exploration of virtual and augmented reality. Students are also introduced to the fundamentals of Contract Documentation, including annotation, MEP coordination, and detailing.

Prerequisite: ID 20602.

Pre/corequisite: ID 30341 and ID 30403.

Schedule Type: Laboratory, Lecture, Combined Lecture and Lab

Contact Hours: 1 lecture, 2 lab

Grade Mode: Standard Letter

ID 34001 INTERIOR DESIGN STUDIO III-LARGE SCALE PLANNING AND DOCUMENTATION 4 Credit Hours

Introduction to large-scale commercial space design through studio projects and lectures with an emphasis on space planning, office systems furniture planning, and development of workstation prototype development.

Prerequisite: ID 24002 with a minimum C grade.

Schedule Type: Studio

Contact Hours: 8 other

Grade Mode: Standard Letter

ID 34002 INTERIOR DESIGN STUDIO IV-GLOBAL AND HISTORICAL CONTEXT 4 Credit Hours

Focus is on projects involving the historical design traditions of the United States and various global cultures. Historical approaches to interiors include: preservation; restoration; recreation of historic interiors; and the reuse of historic structures for new purposes. The use of metric dimensioning is a component of one project.

Prerequisite: ID 34001 with a minimum C grade.

Corequisite: ID 44014.

Schedule Type: Studio

Contact Hours: 8 other

Grade Mode: Standard Letter

ID 40311 CONTEMPORARY ISSUES AND RESEARCH 3 Credit Hours

The course focuses on human well-being and contemporary social, economic, environmental, political and cultural issues influencing the practice and discipline of interior design. Course studies conceptual frameworks and research methodologies and their application to interior design.

Prerequisite: ID 30352.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 40404 INTERIOR DESIGN METHODS AND MATERIALS IV: ADVANCED MATERIALS AND ASSEMBLIES 3 Credit Hours

This advanced Methods and Materials course will examine characteristics associated with materials, methods, assemblies, and systems and their potential to generate innovative meanings and design outcomes.. Through a series of case studies and projects, creative uses and combination of research, methods, fabrication, detailing and synthesis are explored.

Prerequisite: ID 30403.

Pre/corequisite: ID 40461.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 40461 INTERIOR DESIGN STUDIO VI 5 Credit Hours

The studio involves understanding and designing for others with distinct realities and unfamiliar experiences by utilizing current specific social issues as design problems. Through the participatory and self-reflective design process, the students are challenged to abandon the stability of their worldview to align viewpoints with that of the end users of the designed space. Emphasis will be placed on constant reflection, understanding and respect from all participating members, not just the account of one individual's imaginative projections.

Prerequisite: ID 30352.

Pre/corequisite: ID 40404.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 40472 INTERIOR DESIGN STUDIO VII 5 Credit Hours

An advanced studio course focused on developing concepts and capacities for independent future practice. Topics will rotate based upon faculty expertise and student research interests as developed in ID 40311 Contemporary Issues and Research. Emphasis will be placed upon advanced theoretical and strategic development; advanced understandings of social, cultural, and spatial contexts; design as research; advanced representational strategies; and sophisticated design expression across all facets and scales of a project.

Prerequisite: ID 40461.

Schedule Type: Studio

Contact Hours: 10 other

Grade Mode: Standard Letter

ID 40502 PROFESSIONAL PRACTICES II 3 Credit Hours

This advanced professional practice course proposes a critical approach to understand, evaluate and analyze interior design profession, projects and practice. The course focuses on the business, legal, financial, and managerial considerations of project and practice utilizing an intensive case study approach, and critical discussions on urgent topics facing practice.

Prerequisite: ID 30501.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

ID 41093 VARIABLE TITLE WORKSHOP IN INTERIOR DESIGN 1-4 Credit Hours

(Slashed with ID 51093)(Repeatable for credit) Workshops dealing with variable topics related to the interior design profession. Learning experiences provided in a broad spectrum of specialties.

Prerequisite: None.

Schedule Type: Workshop

Contact Hours: 1-4 other

Grade Mode: Satisfactory/Unsatisfactory

ID 41095 SPECIAL TOPICS IN INTERIOR DESIGN 1-4 Credit Hours

(Repeatable for credit) Discussion of a major topic or issue within the profession of interior design. Repeat registration permitted.

Prerequisite: Interior design major.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

ID 41096 INDIVIDUAL INVESTIGATION IN INTERIOR DESIGN 1-3 Credit Hours

(Repeatable for credit) Independent study of interior design and related topics under the guidance of a faculty member.

Prerequisite: Interior design major.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ID 44527 STUDY TOURS 1-10 Credit Hours

A series of study tours for in-depth, first-hand experiences of historic sites, markets, manufacturing facilities and attendance at product seminars.

Prerequisite: Junior or senior standing.

Schedule Type: Lecture

Contact Hours: 1-10 lecture

Grade Mode: Standard Letter

ID 44535 HISTORY OF INTERIORS-1600 TO PRESENT 4 Credit Hours

A chronological study of housing and furnishings from the Renaissance to the Victorian Period-16th to 19th centuries and 20th century.

Prerequisite: ID 44534.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

ID 44592 PROFESSIONAL INTERIOR DESIGN INTERNSHIP (ELR) 1-4 Credit Hours

(Repeatable for credit) Provides practical professional interior design experience by exposing the student to first-hand knowledge of the professional work environment. Students are required to prepare a portfolio and resume, and interview for the positions offered by the professional design firms locally, nationally and internationally.

Prerequisite: ID 34002 with a minimum C grade.

Schedule Type: Practical Experience

Contact Hours: 12-48 other

Grade Mode: Standard Letter

Attributes: Experiential Learning Requirement

ID 51093 VARIABLE TITLE WORKSHOP IN INTERIOR DESIGN 1-4 Credit Hours

(Slashed with ID 41093)(Repeatable for credit) Workshops dealing with variable topics related to the interior design profession. Learning experiences provided in a broad spectrum of specialties.

Prerequisite: Interior Design major; and graduate standing.

Schedule Type: Workshop

Contact Hours: 1-4 other

Grade Mode: Satisfactory/Unsatisfactory

ID 51095 SPECIAL TOPICS IN INTERIOR DESIGN 1-4 Credit Hours

(Repeatable for credit) Discussion of a major topic or issue within the profession of interior design.

Prerequisite: Interior design major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 1-4 lecture

Grade Mode: Standard Letter

ID 51096 INDIVIDUAL INVESTIGATION IN INTERIOR DESIGN 1-3 Credit Hours

(Repeatable for credit) Independent study of interior design and related topics under the guidance of a faculty member.

Prerequisite: Interior design major; and graduate standing.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

ID 54535 HISTORY OF INTERIORS 1600 TO PRESENT 4 Credit Hours

A chronological study of housing and furnishings from the Renaissance to the Victorian Period, sixteenth to nineteenth centuries and twentieth century.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 4 lecture

Grade Mode: Standard Letter

Landscape Architecture (LARC)

LARC 50100 DESIGN VISUALIZATION 3 Credit Hours

Demonstration and application of computer software that aids the communication skill of a designer.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 50101 LANDSCAPE ARCHITECTURE STUDIO I 6 Credit Hours

Garden Typologies: Beginning studio focused on garden typologies including exploration of small scale design elements and site, with private spaces emphasis.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

LARC 50102 LANDSCAPE ARCHITECTURE STUDIO II 6 Credit Hours

Neighborhoods: Small scale community design that connects spaces to form neighborhoods and establishes linkages to larger communities.

Prerequisite: LARC 50101; and landscape architecture major; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

LARC 60103 LANDSCAPE ARCHITECTURE STUDIO III 6 Credit Hours

Systems and Infrastructure: Natural and hybrid ecological design studio with exploration of the role of systems and the integration into suburban and urban infrastructures with a focus on ecological function and services.

Prerequisite: LARC 50102; and landscape architecture major; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

LARC 60104 LANDSCAPE ARCHITECTURE STUDIO IV 6 Credit Hours

Urban Form: Urban design studio at multiple scales to understand the diversity of a city with an emphasis on the relationships of architecture forms, systems, infrastructures, and landscape architecture functions.

Prerequisite: LARC 60103; and landscape architecture major; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

LARC 60105 LANDSCAPE ARCHITECTURE STUDIO V 6 Credit Hours

Interdisciplinary or Capstone Studio: Option of a studio with graduate CUDC architecture and urban design students or development of an individual studio project with a selected faculty advisor.

Prerequisite: LARC 60104; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter

LARC 60106 LANDSCAPE ARCHITECTURE STUDIO VI 6 Credit Hours

Interdisciplinary or Capstone Studio 2: Option of a studio with graduate CUDC architecture and urban design students or develop individual studio project and select faculty adviser.

Prerequisite: LARC 60105; and graduate standing.

Schedule Type: Studio

Contact Hours: 12 other

Grade Mode: Standard Letter-IP

LARC 60111 LANDSCAPE HISTORY AND THEORY 3 Credit Hours

Presentation of important landscape events, people and places to document and explain the factors that influenced the built and natural environments, with emphasis on cultural theories of design and their influence upon the built and natural environments.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 60301 SITE ENGINEERING 3 Credit Hours

Examination and application of typical engineering strategies for small and large scale landscape projects with a concentration on sustainable practices.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 60401 LANDSCAPE ARCHITECTURE CONSTRUCTION METHODS 3 Credit Hours

Discussion and application of small and large scale construction techniques that explore materials, construction assemblies, construction methods and construction documentation including investigations of lifecycles and maintenance of design decisions.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 60601 PLANTS AND PLANTED FORM 3 Credit Hours

Plant identification with emphasis on individual plants and plant communities as relate to the built environment; integrated into the application of formal and informal design strategies for landscape planning that explores individual plants, plant communities and ecosystems. Further emphasis is placed on the relationships of architecture and interior design to landscape architecture.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 60602 URBAN ECOLOGICAL SYSTEMS 3 Credit Hours

Study of how ecological systems in highly anthropocentric environments provide necessary ecological services. Emphasized is the role that water plays in activating the supporting, provisioning, regulating and cultural ecosystem services required for human well-being.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 60798 MASTER PROJECT IN LANDSCAPE ARCHITECTURE RESEARCH 3 Credit Hours

Development of a rationale and structure for the independent design project to be completed in the final semester of the program.

Prerequisite: Graduate standing.

Schedule Type: Research

Contact Hours: 9 other

Grade Mode: Standard Letter

LARC 60799 MASTERS PROJECT IN LANDSCAPE ARCHITECTURE 6 Credit Hours

Independent Landscape Architecture design project, completed under the direction of an individual advisor selected from the graduate faculty.

Prerequisite: LARC 60105 and Graduate standing.

Schedule Type: Project or Capstone

Contact Hours: 6 other

Grade Mode: Standard Letter

LARC 60922 METHODS OF INQUIRY IN ARCHITECTURAL STUDIES 2 Credit Hours

(Cross-listed with AED 60922 and ARCH 60922) Provides a comprehensive coverage of architectural inquiry techniques, including qualitative and quantitative research methods and critical-thinking skills to help students better conduct and understand research.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 2 lecture

Grade Mode: Standard Letter

LARC 60923 EMPIRICAL RESEARCH IN ENVIRONMENTAL DESIGN 1 Credit Hour

(Cross-listed with AED 60923) Introduces student to faculty-directed research in a field within the environmental design domain. Includes lectures by research faculty, readings from primary and review literature, and regular discussions among students, faculty and other research associates working under the direction of a principal investigator.

Prerequisite: Landscape architecture major; and graduate standing.

Corequisite: LARC 60922.

Schedule Type: Lecture

Contact Hours: 1 lecture

Grade Mode: Standard Letter

LARC 65003 PROFESSIONAL PRACTICE: LEADERSHIP, ETHICS AND OFFICE MANAGEMENT 3 Credit Hours

Discusses issues of professional leadership and examines architectural office structures. Management approaches, professional registration and practice, use of consulting engineers and financial management of an office in the profession as business.

Prerequisite: Landscape architecture major; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

LARC 66992 FIELD STUDY IN LANDSCAPE ARCHITECTURE 1-3**Credit Hours**

(Repeatable for credit) Field study in landscape architecture.

Prerequisite: Graduate standing.

Schedule Type: Practical Experience

Contact Hours: 3-9 other

Grade Mode: Standard Letter

LARC 66995 SPECIAL TOPICS IN LANDSCAPE ARCHITECTURE 1-3**Credit Hours**

(Repeatable for credit) Special topics in landscape architecture.

Schedule Type: Lecture

Contact Hours: 1-3 other

Grade Mode: Standard Letter

Urban Design (UD)

UD 55705 FORCES THAT SHAPE CITIES 1-3 Credit Hours

(Repeatable for maximum 3 credit hours) Course examines the forces that have shaped urban form through history, how they impact our cities today and the challenges they will pose for the future.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

UD 60701 URBAN DESIGN STUDIO I 3-6 Credit Hours

Introduction to urban design and its relationship to other design disciplines through the analysis of neighborhoods and the definition of comprehensive area improvement programs.

Prerequisite: Graduate standing.

Schedule Type: Studio

Contact Hours: 6-10 other

Grade Mode: Standard Letter

UD 60702 URBAN DESIGN STUDIO II 3-6 Credit Hours

Urban design explorations of the formal relationships between buildings, open spaces and street sin the development of high density, mixed-use projects.

Prerequisite: UD 60701; and graduate standing.

Schedule Type: Studio

Contact Hours: 6-10 other

Grade Mode: Standard Letter

UD 60703 URBAN DESIGN STUDIO III 3-6 Credit Hours

Design of a comprehensive redevelopment strategy and implementation strategies for an urban area of diverse existing character.

Prerequisite: UD 55705 and 60702 and 65102; and graduate standing.

Schedule Type: Studio

Contact Hours: 3-6 other

Grade Mode: Standard Letter

UD 60705 MASTER PROJECT IN URBAN DESIGN PREPARATION 1-3**Credit Hours**

(Repeatable for maximum three credit hours) Development of a rationale and structure for the independent design project to be completed in the final semester of the program.

Prerequisite: UD 60703; and graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

UD 60798 MASTERS PROJECT IN URBAN DESIGN 6-9 Credit Hours

Independent urban design project, completed under the direction of an individual advisor selected from the graduate faculty.

Prerequisite: UD 60703 and 60705; and graduate standing.

Schedule Type: Master's Project

Contact Hours: 10-15 other

Grade Mode: Standard Letter-IP

UD 65101 COMMUNITY DEVELOPMENT PROCESS 1-3 Credit Hours

Advanced course on comprehensive community development. Case study analysis, qualitative research and work with community initiatives are required.

Prerequisite: UD 55705 and 60703 and 65102; and graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

UD 65102 URBAN SYSTEMS 1-3 Credit Hours

Introduction to urban systems in its socio-economic, environmental and engineering aspects: residential fabric, commercial sector, open space network, transportation systems, and infrastructures.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

UD 65632 URBAN ECOLOGICAL SYSTEMS 3 Credit Hours

Study of how ecological systems in highly anthropocentric environments provide necessary ecological services. Emphasized is the role that water plays in activating the supporting, provisioning, regulating, and cultural ecosystem services required for human well-being.

Prerequisite: UD 65102; and graduate standing.

Schedule Type: Seminar

Contact Hours: 3 lecture

Grade Mode: Standard Letter

UD 66995 SPECIAL TOPICS IN URBAN DESIGN 1-4 Credit Hours

(Repeatable for credit) Special topics in urban design.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-4 other

Grade Mode: Standard Letter