College of Architecture and Environmental Design

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

Academic Advising Office
Center for Architecture and Environmental Design
Kent Campus
http://www.kent.edu/caed/advising

Mission
The College of Architecture and Environmental Design at Kent State University is dedicated to the education of responsible professionals who are committed to the improvement of the quality of life, enhancement of the physical environment and the protection of the public welfare. The college also promotes research in the various fields of environmental design, development of faculty scholarship, broadening of students’ exposure to advanced theory and techniques and dissemination of knowledge. It contributes to the public welfare through its outreach programs to assist communities in their effort of 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.
- Health Care Design - M.H.C.D.
- Landscape Architecture - M.L.A. I
- Landscape Architecture - M.L.A. II
- Urban Design - M.U.D.

Graduate Certificates
- Health Care Facilities

College of Architecture and Environmental Design Faculty
- Cho, Ji Young (2010), Assistant Professor, Ph.D., University of Missouri-Columbia, 2011
- Coffman, Reid R. (2012), Associate Professor
- Davis-Sikora, Diane M. (1997), Associate Professor, M.Arch., Harvard University, 1995
- Evans, Pamela K. (1990), Associate Professor, Ph.D., Oklahoma State University, 1990
- Ferut, Joseph (1989), Assistant Professor, M.Arch., University of Illinois-Chicago, 1987
- Frederick, Charles M. (1996), Assistant Professor, M.L.A., University of Virginia, 1998
- Hughes, David (1985), Professor, M.U.P., City University of New York, 1975
- Lahrmr, Jill (2008), Assistant Professor, B.A., Bowling Green University, 1999
- Liu, Rui (2013), Assistant Professor, Ph.D., University of Colorado-Denver, 2010
- Lucak, Frederick W. (1986), Assistant Professor, B.Arch., Kent State University, 1990
- Peters, Brian (2013), Assistant Professor, M.Arch., University of Illinois-Chicago, 2005
- Robison, Elwin C. (1985), Professor, Ph.D., Cornell University, 1985
- Rugare, Steven N. (1993), Associate Professor
- Sharag-Eldin, Adil M.K. (2002), Associate Professor, Ph.D., University of California-Berkeley, 1998
- 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
- Tippey, Brett (2012), Associate Professor, Ph.D., Universidad de Navarra, 2011
- Willoughby, William T. (2013), Associate Professor, M.A., Kent State University, 1991
- Yoder, Jon (2013), Associate Professor, Ph.D., University of California-Los Angeles, 2011

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 (ARCH), Architectural Studies (ARCS) or Interior Design (ID) 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 (ARCH), Interior Design (ID), or Architectural Studies (ARCS) 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 (ARCH), Architectural studies (ARCS) or Interior Design (ID) 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 (ARCH), interior design (ID) or architectural studies (ARCS) 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: AED 60922 and 60923 with a minimum B- grade; and Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

AED 63001  EVIDENCE BASED DESIGN IN HEALTH CARE  3 Credit Hours
Prepares students to use credible data upon which to base design decisions rather than relying on anecdotal reports and findings. Studies evidence based design by exploring systems, research, and the design process.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
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, Transfer Module 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, Transfer Module Fine Arts

ARCH 10093 WORKSHOP: VARIABLE TITLE 1-3 Credit Hours
(repeated registration permitted.) Variable topics.
Prerequisite: Permission.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

ARCH 10101 FIRST YEAR DESIGN STUDIO I 3 Credit Hours
Introduction to the fundamental principles of visual organization, structural organization, graphic communications, historical precedence and current directions in architecture. Graphic techniques include free hand drawing, and technical orthographics, axonometrics and perspectives.
Prerequisite: Architecture (ARCH) or Interior design (ID) majors.
Schedule Type: Studio
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 10102 FIRST YEAR DESIGN STUDIO II 3 Credit Hours
Investigations into strategies of form making through the introduction of client, type, context, site and form/space theories 2D, and 3D representation techniques and analysis of related reference architects.
Prerequisite: ARCH 10101.
Schedule Type: Studio
Contact Hours: 3 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 3 Credit Hours
The introduction of a building design process that emphasizes the integration of program requirements with form topologies that are both influenced and informed by specific site context. Line and plane and primary configural shapes are again incorporated to develop building form solutions.
Prerequisite: ARCH 20101.
Schedule Type: Studio
Contact Hours: 3 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 (ARCH) or Architectural Studies (ARCS) major or Architectural Studies (ARCS) minor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 20113 HISTORY OF ARCHITECTURE III 3 Credit Hours
A history of 20th century architecture.
Prerequisite: ARCH 20112 and Architecture (ARCH) or Architectural Studies (ARCS) major or Architectural Studies (ARCS) minor.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 20201 BEYOND WESTERN ARCHITECTURE 3 Credit Hours
Course introduces students to the broad realm of contributions to world architecture made by cultures and civilizations that were not in the traditional sphere of Western/European influence.
Prerequisite: ARCH 10111 and 20112; and Architecture (ARCH) or Architectural Studies (ARCS) major.
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, loads including dead-live-wind-earthquake and building code requirements for structural safety.
Prerequisite: Architecture majors only and MATH 12011 and 12012, or MATH 12002; PHY 13001 or 13011.
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 (ARCH) or Architectural Studies (ARCS) or Interior Design (ID) major.
Schedule Type: Lecture
Contact Hours: 15-45 other
Grade Mode: Standard Letter

ARCH 20602  COMPUTER APPLICATIONS IN ARCHITECTURE II  1-3 Credit Hours
Principles and practices of 3D digital modeling and rendering, including: production of geometric surfaces and forms using polygon construction, texturing, lighting and rendering.
Prerequisite: ARCH 20601 and Architecture (ARCH) or Architectural Studies (ARCS) or Interior Design (ID) major.
Schedule Type: Lecture
Contact Hours: 15-45 other
Grade Mode: Standard Letter

ARCH 20693  WORKSHOP: COMPUTER APPLICATIONS  1-3 Credit Hours
(Repeatable for credit) Computer workshops are intended to provide 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 and Interior Design majors only.
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 (ARCH) 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/seminar/research component conducted concurrently with ARCH 30102 addressing design of form and space in cities through study of precedents, traditions and current directions in urban form making.
Prerequisite: ARCH 30101 and ARCH 30001.
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/seminar/research component addressing 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 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 (ARCH) majors with approved admission to advanced study (third year).
Corequisite: ARCH 30001.
Schedule Type: Studio
Contact Hours: 5 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

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: Special approval.
Corequisite: ARCH 30012.
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 the goals, objectives, intentions and parameters of urban design.
Prerequisite: Special approval.
Corequisite: ARCH 30112.
Schedule Type: Studio
Contact Hours: 5 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

ARCH 40001  SUSTAINABLE DESIGN (WIC)  1 Credit Hour
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
(Cross-listed 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
(Cross-listed 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. 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
(Cross-listed with ARCH 50102) Studio investigation of the comprehensive concerns and understanding of building systems integration. 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 (ARCH) major with 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
(Cross-listed 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 30301.
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 (ARCH) majors with 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
(Cross-listed 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, including glazing and interiors. Introduction to construction contract documents.
Prerequisite: ARCH 30401.
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. Interior design (ID) majors by special approval.
Prerequisite: PHY 13012 and Architecture (ARCH) major with approved admission to advanced study (third year).
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. The investigation and analysis of lighting, thermal, water, electrical and waste systems in urban settings.
Prerequisite: ARCH 30501.
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
(Cross-listed with ARCH 55210) History and theory of renaissance architecture from 1400 until 1600.
Prerequisite: ARCH 10011 and 10012; or ARCH 10111 and 20112; or ARTH 22006 and 22007.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 45211  BAROQUE ARCHITECTURE  3 Credit Hours
(Cross-listed with ARCH 55211) History and theory of architecture in Europe from 1600 through 1750.
Prerequisite: ARCH 10011 and 10012; or ARCH 10111 and 20112; or ART 22006 and 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
(Cross-listed with ARCH 55220) History of American architecture for Spanish, French, Dutch and English colonization through the 19th century.
Prerequisite: ARCH 10011 and 10012; or ARCH 10111 and 20112; or ARTH 22006 and 22007.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
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<tr>
<td>ARCH 45230</td>
<td>FRANK LLOYD WRIGHT</td>
<td>3</td>
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<td>(Slashed with ARCH 55230)</td>
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<td>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.</td>
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<td>Prerequisite:</td>
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<tr>
<td>ARCH 45240</td>
<td>THE SKYSCRAPER</td>
<td>3</td>
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<td>(Cross-listed with ARCH 55240)</td>
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<td>A study of skyscrapers from the standpoint of architectural, financial, structural, psychological, and technological considerations. Emphasis is placed on: early developments in Chicago and New York, the influence of the International Style, and current trends in ultra-high skyscrapers being built outside the US.</td>
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<td>Prerequisite:</td>
<td>Minimum C (2.000) grade in both ARCH 10111 and ARCH 20112.</td>
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<tr>
<td>ARCH 45241</td>
<td>ARCHITECTURE OF WORLD’S FAIRS</td>
<td>3</td>
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<td>(Cross-listed with ARCH 55241)</td>
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<td>A seminar investigating 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.</td>
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<td>Prerequisite:</td>
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<tr>
<td>ARCH 45291</td>
<td>SEMINAR: VARIABLE TOPICS IN ARCHITECTURAL HISTORY</td>
<td>1-3</td>
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<td>(repeatable for a total of 3 credit hours) (Cross-listed with ARCH 55291) Content varies.</td>
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<td>Prerequisite:</td>
<td>Special approval.</td>
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<tr>
<td>ARCH 45391</td>
<td>SEMINAR: STRUCTURES III</td>
<td>1-3</td>
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<td>(Repeatable for credit) (Cross-listed 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.</td>
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<td>ARCH 45491</td>
<td>SEMINAR:METHODS AND MATERIALS III</td>
<td>1-3</td>
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<td>(Repeatable for credit) (Cross-listed with ARCH 55491) Advanced topics in methods and complex materials systems. Computer modeling and field experiences are required.</td>
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<tr>
<td>ARCH 45591</td>
<td>SEMINAR:ENVIRONMENTAL TECHNOLOGY III</td>
<td>1-3</td>
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<td>(Repeatable for credit) (Cross-listed with ARCH 55591) Variable topics in environmental technology-environmental design and energy conservation, advanced lighting techniques etc.</td>
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<td>Contact Hours:</td>
<td>1-3 other</td>
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<td>Grade Mode:</td>
<td>Standard Letter</td>
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<tbody>
<tr>
<td>ARCH 45601</td>
<td>ADVANCED COMPUTER APPLICATIONS</td>
<td>1-3</td>
<td>Standard Letter</td>
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<td></td>
<td>(Repeatable for a total of 3 credit hours) (Cross-listed with ARCH 55601) This course discusses advanced visualization techniques such as raytracing, radiosity and animation, and presents a variety of presentation issues and options.</td>
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<tr>
<td>Prerequisite:</td>
<td>Special approval; admission to third year.</td>
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<tr>
<td>Schedule Type:</td>
<td>Combined Lecture and Lab</td>
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<tr>
<td>Contact Hours:</td>
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<tbody>
<tr>
<td>ARCH 45620</td>
<td>INTRODUCTION TO PRESERVATION</td>
<td>1-3</td>
<td>Standard Letter</td>
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<tr>
<td></td>
<td>(Repeatable for a maximum of 3 credit hours) (Cross-listed with ARCH 55620) An overview of preservation including building analysis, conservation adaptive reuse economic benefits of preservation planning as a revitalizing strategy.</td>
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<tr>
<td>Prerequisite:</td>
<td>Permission.</td>
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<tr>
<td>Schedule Type:</td>
<td>Lecture</td>
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<tr>
<td>Contact Hours:</td>
<td>1-3 lecture</td>
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<td>Grade Mode:</td>
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<tbody>
<tr>
<td>ARCH 45621</td>
<td>CURRENT ISSUES IN HISTORIC PRESERVATION</td>
<td>1-3</td>
<td>Standard Letter</td>
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<tr>
<td></td>
<td>(Repeatable for a maximum of 3 credit hours) (Cross-listed with ARCH 55621) course in which practicing professionals including architects, planners, developers and government officials present preservation related work.</td>
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<tr>
<td>Prerequisite:</td>
<td>Permission.</td>
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<tr>
<td>Schedule Type:</td>
<td>Lecture</td>
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<td>Contact Hours:</td>
<td>1-3 lecture</td>
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<th>Grade Mode</th>
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<tr>
<td>ARCH 45625</td>
<td>EXPLORING HISTORIC STRUCTURES</td>
<td>3</td>
<td>Standard Letter</td>
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<tr>
<td></td>
<td>(Cross-listed with ARCH 55625)</td>
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<td></td>
<td>Provides students with the skills and opportunity to document an historic structure using methods prescribed by the Historic American Buildings Survey (HABS). Course work will cover 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. Architecture majors must have approved admission to the third year of study.</td>
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<tr>
<td>Prerequisite:</td>
<td>Junior standing.</td>
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<tr>
<td>Schedule Type:</td>
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<td>Contact Hours:</td>
<td>1.2 lecture, 3.6 lab</td>
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<td>Grade Mode:</td>
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<tr>
<td>ARCH 45627</td>
<td>PRESERVATION TECHNOLOGY</td>
<td>3</td>
<td>Standard Letter</td>
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<td></td>
<td>(Cross-listed with ARCH 55627)</td>
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<td></td>
<td>A study of historic building materials with an emphasis on causes of degradation, strategies for conservation and standards for preservation.</td>
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<tr>
<td>Prerequisite:</td>
<td>Junior or Senior standing in Architecture.</td>
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<tr>
<td>Schedule Type:</td>
<td>Lecture</td>
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<tr>
<td>Contact Hours:</td>
<td>3 lecture</td>
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<td>Grade Mode:</td>
<td>Standard Letter</td>
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ARCH 45630  INTRODUCTION TO LANDSCAPE ARCHITECTURE  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) (Cross-listed 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 a maximum of 3 credit hours) (Cross-listed 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 a maximum of 3 credit hours) (Cross-listed with ARCH 55640) Research of existing built environments and an investigation of the planning design process for the elderly. Repeatable for a total of 3 credit hours.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 45701  URBAN DESIGN STUDIO I  3-6 Credit Hours
(Repeatable for a maximum of 6 credit hours) Introduction to urban design and its relationship to other design disciplines through analysis of neighborhoods and definition of comprehensive area improvement programs.
Prerequisite: Special approval.
Schedule Type: Studio
Contact Hours: 3-6 other
Grade Mode: Standard Letter

ARCH 45703  THEORIES AND PRINCIPLES OF URBAN DESIGN I  1-3 Credit Hours
(Repeatable for a maximum of 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 a maximum of 3 credit hours) Course on the relationship between design ideologies/theories and the realities of existing spatial relationships/precedents.
Prerequisite: Special approval.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 45793  WORKSHOP: URBAN DESIGN AND PLANNING  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) This 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) Variable topic seminar.
Prerequisite: Approved admission to 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) (Cross-listed with ARCH 56992) Variable topic field experience.
Prerequisite: Approved admission to 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) (Cross-listed with ARCH 56993) Variable topic workshop.
Prerequisite: Approved admission to 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) (Cross-listed with ARCH 56995) Special topics in architecture.
Prerequisite: Approved admission to 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) Individual investigation.
Prerequisite: Permission prior written agreement with faculty is required.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 50001  SUSTAINABLE DESIGN  1 Credit Hour
(Cross-listed with ARCH 40001) Writing intensive and 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
(Cross-listed with ARCH 40002) Lecture and research component addressing comprehensive integration of mechanical, electrical, communication, structural- and 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-ARCHITECTURE  1-6 Credit Hours
(Repeatable for credit)
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 1-6 other
Grade Mode: Satisfactory/Unsatisfactory

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 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 50001  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. Interior design (ID) majors by special approval.
Prerequisite: PHY 13012 and Architecture (ARCH) major with approved admission to advanced study (third year).
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, including glazing and interiors.
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
(Cross-listed with ARCH 45101) This studio intends to investigate a new scale of environmental issues which 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 a total of 6 credit hours) (Cross-listed with ARCH 45102) Advanced design studio emphasizing comprehensive and independent investigation-exploring and manifesting 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 50501  ENVIRONMENTAL TECHNOLOGY I  3 Credit Hours
(Slashed with ARCH 40502) Ecological design of large buildings. The investigation and analysis of lighting, thermal, water, electrical and waste systems in urban settings.
Prerequisite: Graduation in architectural environmental systems including lighting, thermal, water, electrical and waste systems. Interior design (ID) majors by special approval.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 50502  ENVIRONMENTAL TECHNOLOGY II  3 Credit Hours
(Cross-listed with ARCH 40502) Ecological design of large buildings. The 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 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 elastoplastic 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
(Cross-listed 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 50010  FOURTH-YEAR DESIGN STUDIO I  5 Credit Hours
(Cross-listed with ARCH 40101) Studio investigation of complex formal and spatial constructs addressing comprehensive concerns of architecture. Special emphasis on understanding conservation of the natural environment. CAD is required.
Prerequisite: ARCH 30102 or ARCH 30112; Graduate standing.
Corequisite: ARCH 50001.
Schedule Type: Studio
Contact Hours: 5 other
Grade Mode: Standard Letter

ARCH 50102  INTEGRATED DESIGN STUDIO  5 Credit Hours
(Cross-listed with ARCH 40102) Studio investigation of the comprehensive concerns and understanding of building systems integration. CAD is required. Corequisite ARCH 50002.
Prerequisite: Graduate standing.
Schedule Type: Studio
Contact Hours: 5 other
Grade Mode: Standard Letter
ARCH 55210  RENAISSANCE ARCHITECTURE  3 Credit Hours
(Cross-listed 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
(Cross-listed 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 20th Century Architecture.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 55220  AMERICAN ARCHITECTURE: COLONIAL TO 1900  3 Credit Hours
(Cross-listed with ARCH 45220) History of American architecture from 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
(Cross-listed with ARCH 45240) A study of skyscrapers from the standpoint of architectural, financial, structural, psychological, and technological considerations. Emphasis is placed on: early developments in Chicago and New York, the influence of the International Style, and current trends in ultra-high skyscrapers being built outside the US.
Prerequisite: Graduate standing; minimum C (2.000) grade in both ARCH 10111 and ARCH 20112.
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) A seminar investigating 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 a maximum of 3 credit hours) (Cross-listed with ARCH 45291) Content varies.
Prerequisite: Special approval and Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 55391  SEMINAR: STRUCTURES III  1-3 Credit Hours
(Repeatable for credit) (Cross-listed 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) (Cross-listed with ARCH 45491) Advanced topics in methods and complex materials systems. Computer modeling and field experience is 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 a maximum of 3 credit hours) (Cross-listed 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 a maximum of 3 credit hours) (Cross-listed with ARCH 45601) This course discusses advanced visualization techniques such as raytracing, radiosity and animation and 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 a maximum of 3 credit hours) (Cross-listed with ARCH 45620) An overview of preservation including building analysis conservation, adaptive reuse, economic benefits of preservation planning as a revitalizing strategy. Graduate standing.
Prerequisite: Admission to the preservation program or permission of the instructor.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 55621  CURRENT ISSUES IN HISTORIC PRESERVATION  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) (Cross-listed with ARCH 45621) Course in which practicing professionals including architects, planners, developers and government officials present preservation related work.
Prerequisite: Special approval and Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 55625  EXPLORING HISTORIC STRUCTURES  3 Credit Hours
(Cross-listed with ARCH 45625) This course provides students with the skills and opportunity to lead teams documenting an historic structure using methods prescribed by the Historic American Buildings Survey (HABS). Lectures will cover 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: Graduate standing in the College of Architecture and Environmental Design.
Schedule Type: Laboratory, Lecture
Contact Hours: 1.2 lecture, 3.6 lab
Grade Mode: Standard Letter

ARCH 55627  PRESERVATION TECHNOLOGY  3 Credit Hours
(Cross-listed with ARCH 45627) A study of historic building materials with an emphasis on causes of degradation, strategies for conservation, and standards for restoration.
Prerequisite: Graduate standing; and minimum C (2.000) grade in both ARCH 30401 and ARCH 40402.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 55630  INTRODUCTION TO LANDSCAPE ARCHITECTURE  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) (Cross-listed 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 a maximum of 3 credit hours) (Cross-listed 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 a maximum of 3 credit hours) (Cross-listed 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 55707  REPRESENTATION IN DESIGN  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) Course on the nature of communication in design and the representational tools the designer uses to give form to abstract ideas and converse with clients and colleagues.
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 1-3 other
Grade Mode: Satisfactory/Unsatisfactory

ARCH 55793  WORKSHOP IN URBAN DESIGN AND PLANNING  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) This course provides an introduction to the scope of planning and design in the making of quality urban neighborhoods with 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: Standard Letter

ARCH 56991  SEMINAR: VARIABLE TOPIC  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) Variable topic seminar.
Prerequisite: Special approval and graduate standing.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 56992  FIELD STUDY  1-3 Credit Hours
(Repeatable for a maximum of 3 credit hours) (Cross-listed with ARCH 46992) Field experience.
Prerequisite: Special approval and Graduate standing.
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) (Cross-listed 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) (Cross-listed with ARCH 46995) Special topics in architecture.
Prerequisite: Special approval and Graduate standing.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

College of Architecture and Environmental Design
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 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 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 60150 and 60922 and Graduate standing.
Schedule Type: Studio
Contact Hours: 6-9 other
Grade Mode: Standard Letter-IP

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: Graduate standing; ARCH 60101 and 60301.
Schedule Type: Lecture
Contact Hours: 2-3 lecture
Grade Mode: Standard Letter-IP

ARCH 60198  MASTER'S PROJECT IN HEALTH CARE DESIGN I  6 Credit Hours
Oriented to the individual student, focusing on research surrounding a specific aspect health care facility design. The student then defines the design issue and establishes the parameters around which their masters design project is executed.
Prerequisite: Graduate standing; and special approval.
Schedule Type: Master’s Project
Contact Hours: 6 other
Grade Mode: Standard Letter-IP

ARCH 60298  MASTER'S PROJECT IN HEALTH CARE DESIGN II  6 Credit Hours
Focused on an individual student's defined master project topic and overseen by a faculty advisor and committee members. Concludes in the design of the specific issue detailed by the student in Health Care Design I. This is the culminating course for the Master's Degree in Health Care Design.
Prerequisite: ARCH 60198; and Graduate standing; and special approval.
Schedule Type: Master’s Project
Contact Hours: 6 other
Grade Mode: Standard Letter-IP

ARCH 60301  THEORIES OF ARCHITECTURE  1-3 Credit Hours
(Repeatable for a maximum of 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 60451  DEVELOPING ENVIRONMENTS FOR PATIENTS ACROSS THE LIFESPAN  3 Credit Hours
Explores the functional, operational, and personpsychosocial requirements for different patient populations. It follows a life-course perspective, beginning with birthing and infant care, moving through adolescence and adult care, exploring a number of medical specializations such as oncology and orthopedics, then explores environments for older adults and end-of-life care.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 60301 and Graduate standing and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ARCH 63002  HEALTH CARE FACILITIES I  3 Credit Hours
An investigation of the history and types of health care facilities, and basic planning and programming requirements for their planning and design.
Prerequisite: Graduate standing and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 63003  HEALTH CARE FACILITIES II  3 Credit Hours
An investigation of architectural finishes, furnishings, mechanical systems, regulatory systems, and design team dynamics in health care design.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 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
The course surveys laws relating to the practice of architecture and to dispute resolution with emphasis on contract laws contrasted with the 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 (ARCH) 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 (ARCH) major and Graduate standing.
Schedule Type: Lecture
Contact Hours: 2-3 lecture
Grade Mode: Standard Letter

ARCH 66199  THESIS I  2-6 Credit Hours
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. Graduate standing.
Prerequisite: 6 credit hours of ARCH 66199.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP

ARCH 66892  PRACTICUM  1-3 Credit Hours
(Repeatable for credit)Variable topic practicum.
Prerequisite: Permission.
Schedule Type: Practicum or Internship
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 66993  WORKSHOP: VARIABLE TOPIC  1-3 Credit Hours
(Repeatable for credit)Variable topic workshop.
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-S/U

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: TECH 57000 and Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter-S/U-IP

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-S/U-IP
Architectural Studies (ARCS)

ARCS 10121  REPRESENTATION OF DESIGN I  3 Credit Hours
A survey of the techniques and assumptions of basic architectural design concepts and representation of the built environment through analytical and synthetic exercises that introduce fundamental design skills. In order to integrate students into the college and the field, the exercises are supplemented by readings in contemporary visual culture.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCS 10122  REPRESENTATION OF DESIGN II  3 Credit Hours
Continuation of ARCS 10121 with an emphasis on 3-D thinking and representation, critical skills and the role of images in architectural culture and society. The course also introduces the wider application of design principles in graphic design, digital media and the visualization of information.
Prerequisite: ARCS 10121 or ARCH 10101.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 (ARCS) 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 30123  MATERIALS AND PROCESS OF MAKING  3 Credit Hours
Seeks to introduce and foster an ease of mobility through various digital design environments utilizing familiar techniques of design production (i.e. drawing, modeling, rendering, etc.). Students engage in digital modes of production that will enable the testing of material, spatial, and tectonic performance through scalar prototyping. Prerequisite: AED 10102; or special approval for students who have completed equivalent design foundations studios in areas such as Fashion Design, Visual Communications Design or Studio Art
Schedule Type: Lecture, 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 special approval for students who have completed equivalent design foundations studios in areas such as Fashion Design, Visual Communications Design or Studio Art
Schedule Type: Lecture, 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 scientific method through lab exercises and design projects. Prerequisite: AED 10102; or ARCH 10012
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; 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 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
Aimed at investigating the increasingly intertwined issues that link contemporary architectural theory and criticism with the world of media.
Prerequisite: ARCH 10012 and Junior standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course
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

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

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

CMGT 25000  PRINCIPLES OF L.E.E.D.  1 Credit Hour
Review LEED as it applies to the construction industry with a focus on preparation for the LEED Green Associate exam.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

CMGT 31015  CONSTRUCTION TECHNOLOGY  3 Credit Hours
This course provide 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

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
This course will build on the Construction Safety course to enable the student to be able to properly manage the construction safety techniques and practices learned in the OSHA 30 hour course. Further, this course will provide the student with the opportunity 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
This course provides an in-depth study of various risks associated with construction projects and how those risks impact the construction industry. Topics of discussion include analytical and management techniques used to identify, analyze and respond to risks. Students will 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
This course will introduce the students to construction related insurance products and worker’s compensation practices and policies. Further, students will understand 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 twice for credit) Create and combine Project Management, Safety, and Quality Control plans and prepare quantity takeoffs and schedule for a construction project, in the form of a construction proposal and presentation. Further analysis will be done on general construction proposals.
Prerequisite: CMGT 10001 and special approval.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 41040 CONSTRUCTION ESTIMATING I 3 Credit Hours
Introduction to estimating and the quantity takeoff process needed to complete accurate estimates for all types of construction projects.
Prerequisite: CMGT 22200.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 41041 CONSTRUCTION ESTIMATING II 3 Credit Hours
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 410047 FUNDAMENTALS OF INDUSTRIAL AND CONSTRUCTION HYGIENE 3 Credit Hours
This course is a part of the Safety Management Concentration in the Bachelor of Science in Construction Management and focuses on the environmental, community and occupational health issues within facilities and construction sites. It will provide 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
This course focuses on general legal doctrine and practical considerations of the Occupational Safety and Health Act (OSHA). Further, it 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 MANAGERS 3 Credit Hours
This course will further reinforce and investigate the usage of Building Information Modeling (BIM) as a Construction Management tool. BIM models will be created, with scheduling and cost loading, utilized to understand how BIM usage is maximized within the Built Environment. Further, it covers the scope of the act, duties under the act, enforcement, adjudication, and OSHA-related litigation.
Prerequisite: CMGT 41040.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 42050 INTERNATIONAL CONSTRUCTION MANAGEMENT 3 Credit Hours
This 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 this 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
This course focuses on the construction application of alternative mechanical, electrical, and plumbing systems in the built environment. The course has an 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
The course focuses on estimating mechanical, electrical, plumbing, and fire protection systems for the built environment. The course 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 31040 and CMGT 31033.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 42053  SUBCONTRACTOR LEADERSHIP AND PRACTICES  3 Credit Hours
This course focuses on the leadership, operations, and overall management of construction subcontractor companies. The course has an 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
This course will provide an in depth review and application of Civil Construction Estimating techniques and technology associated with Civil Estimating practices. This course will cover 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
This course discusses the installation, construction, renewal, estimating, and management of underground utility systems; while maintaining 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
This course will build on the student's previous knowledge of construction and enable the student to explore the nature of soils, 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

CMGT 42105  CONSTRUCTION CONTRACTS AND LAW  3 Credit Hours
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 the costs of construction work.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 42107  CONSTRUCTION SCHEDULING  3 Credit Hours
The traditional theory of planning, scheduling and controlling construction projects. Current industry standard computer applications for scheduling is utilized.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 42110  CONSTRUCTION MANAGEMENT CAPSTONE  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: Senior standing.
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 51040  CONSTRUCTION ESTIMATING I  3 Credit Hours
Introduction to estimating and the quantity takeoff process needed to complete accurate estimates for all types of construction projects. The ability to read and understand construction drawings is needed.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 51041  ADVANCED ESTIMATING  3 Credit Hours
Putting costs to the project, finalizing the bid, incorporating the estimate into the schedule, buying out the project, budding ethics and using computer spreadsheets and software 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
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 the 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
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
This course will further reinforce and investigate the usage of Building Information Modeling (BIM) as a Construction Management tool. BIM models will be created, with scheduling and cost loading and utilized to understand how BIM usage is maximized within the Built Environment. This course will utilize software applications to create the BIM model and integrate the construction schedule and estimate. Research on the application of BIM in the industry will also be performed.
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 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. 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
**Interior Design (ID)**

**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 milieu, and investigates applications of these factors in the design of interiors with consideration of specialized populations.  
**Prerequisite:** Minimum grade of C (2.000) in ID 14011.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**ID 14501 STUDIO PROBLEMS IN INTERIOR DESIGN I**  4 Credit Hours  
Studio problems in interior design is a course for the beginning student whose interest is in interior space design.  
**Prerequisite:** TECH 11083.  
**Schedule Type:** Lecture, Studio  
**Contact Hours:** 2 lecture, 2 other  
**Grade Mode:** Standard Letter

**ID 14512 INTERIOR DESIGN GRAPHICS I**  3 Credit Hours  
Studio based course introducing concepts of architectural drawing and sketching techniques including plan, elevation, section and perspective.  
**Prerequisite:** Interior Design (ID) major.  
**Schedule Type:** Studio  
**Contact Hours:** 3 other  
**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:** Minimum grade of C (2.000) in ID 14012.  
**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:** Minimum grade of C (2.000) in ID 24001.  
**Schedule Type:** Studio  
**Contact Hours:** 6 other  
**Grade Mode:** Standard Letter

**ID 24011 METHODS AND MATERIALS I: BUILDING SYSTEMS**  3 Credit Hours  
Introduction to the principles of building construction and systems. Covers topics related to structural systems in buildings which include: floor, wall and roof systems; environmental comfort and sustainability; safety and security; HVAC; electrical; building control; and conveying systems, that influence and interact with interior design. Designed to advance the student to a higher level of understanding and competence in building technology for interior design.  
**Prerequisite:** Minimum grade of C (2.000) in ID 14012.  
**Corequisite:** ID 24001.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**ID 24012 CODES AND STANDARDS FOR INTERIOR DESIGN**  3 Credit Hours  
Presents codes, standards and regulations that pertain to the materials and finishes of building interiors, their proper methods of application, installation and maintenance.  
**Prerequisite:** Minimum grade of C (2.000) in ID 24001.  
**Corequisite:** ID 24002.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**ID 24013 HISTORY OF INTERIORS I-ANCIENT TO 15TH CENTURY**  3 Credit Hours  
Provides a thorough background of the major design periods and traditions of global civilizations from ancient times to the 15th century including the design of furnishings, architecture, interiors, textiles, and the decorative and fine arts. The influences of culture, geography, technology, religion and politics on design are investigated.  
**Prerequisite:** Minimum grade of C (2.000) in ID 24001.  
**Corequisite:** ID 24002.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**ID 24021 INTEGRATED DIGITAL APPLICATIONS I**  3 Credit Hours  
Prepares students for an ongoing exploration and integration of architectural software to assist with design problems within the interior design practice. Course work covers basic fundamentals of popular architectural programs and enables students to continuously build upon acquired knowledge and skills.  
**Prerequisite:** Minimum grade of C in AED 10102.  
**Corequisite:** ID 24001.  
**Schedule Type:** Laboratory  
**Contact Hours:** 6 lab  
**Grade Mode:** Standard Letter
ID 24022  3D MODELING AND RENDERING  2 Credit Hours
Introduces fundamental concepts, principles and practices of 3D digital modeling and rendering techniques applicable to design practice. Thorough instruction is given in the production of geometric surfaces and forms using surface and solid modeling tools, texturing, and lighting. Tutorial-based with supporting demonstrations and lectures on the various commands and approaches to interior design and architectural modeling and rendering.
Prerequisite: Minimum grade of C (2.000) in ID 24001.
Corequisite: ID 24002.
Schedule Type: Laboratory
Contact Hours: 4 lab
Grade Mode: Standard Letter

ID 24023  FURNITURE DESIGN I-WOOD  3 Credit Hours
Provides experience in design through the fundamentals of hand and machine processes in wood furniture design and fabrication. Projects are designed, planned and constructed by the student according to curricular needs and interests. Students must be admitted to the second year of the interior design program or have approval.
Prerequisite: Interior Design (ID) major; and special approval.
Pre/corequisite: ID 24001.
Schedule Type: Laboratory, Lecture
Contact Hours: 1 lecture, 5 lab
Grade Mode: Standard Letter

ID 24502  STUDIO PROBLEMS IN INTERIOR DESIGN II  4 Credit Hours
Special problems dealing with design of residential and related spaces, traffic flow, placement of furnishings, emphasis on color and textural experience and lighting of space. Practical, integrated approach.
Prerequisite: Interior design (ID) major and ID 14501.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 24510  TEXTILES IN THE BUILT ENVIRONMENT  2 Credit Hours
A concise background in textile science is established with a hands-on approach to the evaluation, selection and application of textiles by interior design professionals and architects.
Prerequisite: Interior Design (ID) major.
Corequisite: ID 34503.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 24522  INTERIOR DESIGN GRAPHICS II  3 Credit Hours
Studio based course continuation of ID 14511. Exploration of color, media and graphic representation of interior design materials and environments.
Prerequisite: ID 14501 and ID 14512 and ID 24502.
Schedule Type: Studio
Contact Hours: 3 other
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: Minimum grade of C (2.000) in ID 24002.
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: Minimum grade of C (2.000) in ID 34001.
Corequisite: ID 44014.
Schedule Type: Studio
Contact Hours: 8 other
Grade Mode: Standard Letter

ID 34010  DESIGN THEORY AND AESTHETICS  2 Credit Hours
This survey course discusses theories related to interior design and other design disciplines. Topics include environmental aesthetics, visual perception, psychology of design, and other multidisciplinary theories and their relationship to humans in places and time.
Prerequisite: Sophomore standing and Interior Design (ID) major.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 34011  LIGHTING FOR INTERIOR SPACES  3 Credit Hours
Lighting for Interior Spaces is structured to provide the interior design student with the knowledge required to select, design and install the proper lighting in the interior environment. Builds from elementary information to the complex and current technology in the industry.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34001.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 34012  METHODS AND MATERIALS II-INTERIOR MATERIALS  3 Credit Hours
Explores the methods and materials utilized in the design and construction of the sustainable interior environment. Presents the standards and requirements that pertain to finishes and materials; manufacture and composition of various interior materials and finishes; and proper methods of application and installation of selected materials.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34001.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 34013  INTERIOR DESIGN BUSINESS AND PROFESSIONAL PRACTICE  3 Credit Hours
Undertakes a study of business and professional practices of interior designers. Topics to be covered include: opportunities within the design profession; types of business formations; legal and ethical responsibilities; business operations; and project management. Students develop a business plan; write resumes and cover letters; and develop a design services proposal.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34001.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
ID 34021 LIGHTING FOR INTERIOR SPACES LABORATORY 1 Credit Hour
Lighting for Interior Spaces Lab is a co-requisite to ID 34011 Lighting for Interior Spaces lecture. Structured for hands-on experience with calculating, specifying and testing different types of light and their application.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34011.
Schedule Type: Laboratory
Contact Hours: 2 lab
Grade Mode: Standard Letter

ID 34022 METHODS AND MATERIALS II-INTERIOR MATERIALS LABORATORY 1 Credit Hour
Provides hands-on experience in the application of selected materials for the design and construction of the sustainable interior environment. Information presented in ID 34012 Methods and Materials II - Interior Materials are applied to design scenarios.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34012.
Schedule Type: Laboratory
Contact Hours: 1 lab
Grade Mode: Standard Letter

ID 34023 PERSONAL BRANDING AND IMAGE MAKING 3 Credit Hours
Designed to provide the student with an understanding of 1) branding as a mechanism for personal and group identity; 2) the job market, versatility of the profession, and industry expectations; 3) a developed knowledge of portfolio layout, cover letter and resume writing; 4) increased sense of who they are as a designer and their future; and 5) the ability to market themselves and their work.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34001.
Schedule Type: Lecture
Contact Hours: 3 lab
Grade Mode: Standard Letter

ID 34515 COMPUTER AIDED DESIGN FOR INTERIOR DESIGNERS 3 Credit Hours
Introduction to application of computer drawing and drafting techniques used in interior design. Study of two dimensional and three dimensional techniques as well as symbol libraries.
Prerequisite: Interior Design (ID) major.
Corequisite: ID 34503.
Schedule Type: Laboratory
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 34522 METHODS AND MATERIALS FOR INTERIOR DESIGN 3 Credit Hours
Information regarding the manufacture, construction and application of materials used in interior design. Proper methods and installation procedures of both surface materials and furnishings required in the profession are explored.
Prerequisite: Interior Design (ID) major.
Corequisite: ID 24502.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 34021 LIGHTING FOR INTERIOR SPACES LABORATORY 1 Credit Hour
Lighting for Interior Spaces Lab is a co-requisite to ID 34011 Lighting for Interior Spaces lecture. Structured for hands-on experience with calculating, specifying and testing different types of light and their application.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34011.
Schedule Type: Laboratory
Contact Hours: 2 lab
Grade Mode: Standard Letter

ID 34503 STUDIO PROBLEMS IN INTERIOR DESIGN III 4 Credit Hours
Special problems concerning design of small to moderate size commercial interior space.
Prerequisite: ID 24502.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 34522 METHODS AND MATERIALS FOR INTERIOR DESIGN 3 Credit Hours
Information regarding the manufacture, construction and application of materials used in interior design. Proper methods and installation procedures of both surface materials and furnishings required in the profession are explored.
Prerequisite: Interior Design (ID) major.
Corequisite: ID 24502.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 34021 LIGHTING FOR INTERIOR SPACES LABORATORY 1 Credit Hour
Lighting for Interior Spaces Lab is a co-requisite to ID 34011 Lighting for Interior Spaces lecture. Structured for hands-on experience with calculating, specifying and testing different types of light and their application.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34011.
Schedule Type: Laboratory
Contact Hours: 2 lab
Grade Mode: Standard Letter

ID 34503 STUDIO PROBLEMS IN INTERIOR DESIGN III 4 Credit Hours
Special problems concerning design of small to moderate size commercial interior space.
Prerequisite: ID 24502.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 34023 PERSONAL BRANDING AND IMAGE MAKING 3 Credit Hours
Designed to provide the student with an understanding of 1) branding as a mechanism for personal and group identity; 2) the job market, versatility of the profession, and industry expectations; 3) a developed knowledge of portfolio layout, cover letter and resume writing; 4) increased sense of who they are as a designer and their future; and 5) the ability to market themselves and their work.
Prerequisite: Minimum grade of C (2.000) in ID 24002.
Corequisite: ID 34001.
Schedule Type: Lecture
Contact Hours: 3 lab
Grade Mode: Standard Letter

ID 34504 STUDIO PROBLEMS IN INTERIOR DESIGN IV 4 Credit Hours
Introduction to large scale planning.
Prerequisite: ARCH 10101 and ID 34503.
Pre/corequisite: PHY 13001.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 41093 VARIABLE TITLE WORKSHOP IN INTERIOR DESIGN 1-4 Credit Hours
(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 (ID) major.
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 (ID) 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 (ID) major.
Schedule Type: Individual Investigation
Contact Hours: 1-3 other
Grade Mode: Standard Letter-IP

ID 44001 INTERIOR DESIGN STUDIO V-SPECIALIZED FOCUS AND POPULATIONS 5 Credit Hours
Structured to allow for a specialized focus on design problems that can occur based on current trends or issues that affect the built environment for varying populations. Environmental conditions and current and ongoing specific design issues in the interior environment are utilized as problems for the course.
Prerequisite: Minimum grade of C (2.000) in ID 34002.
Schedule Type: Studio
Contact Hours: 10 other
Grade Mode: Standard Letter
ID 44002 INTERIOR DESIGN STUDIO VI-COMMUNITY ENGAGEMENT
5 Credit Hours
Community engagement refers to the process by which organizations and individuals build ongoing, permanent relationships for the purpose of applying a collective vision for the benefit of a community. Structured to establish relationships and work with community organizations and leaders in formal and informal manners and partnering to create change and improve physical environments.
Prerequisite: Minimum grade of C (2.000) in ID 44001.
Schedule Type: Studio
Contact Hours: 10 other
Grade Mode: Standard Letter

ID 44011 INTEGRATED DESIGN PRACTICE AND PROJECT MANAGEMENT
2 Credit Hours
Introduction and application of current interior design and related disciplines project management needs, methods, and techniques in order to complete a design-build project. Content is project scheduling, documentation and supervision of all members of a design-build team including interior designers, architects, construction personnel and assorted trades involved in producing a built environment.
Prerequisite: Minimum grade of C (2.000) in ID 44612.
Corequisite: ID 44001.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 44014 HISTORY OF INTERIORS II-16TH THROUGH 19TH CENTURY
3 Credit Hours
Provides a thorough background of the major design periods and traditions of global civilizations from the 16th through the 19th centuries including the design of furnishings, architecture, interiors, textiles, and the decorative and fine arts. The influence of culture, geography, technology, religion and politics on design are investigated.
Prerequisite: Minimum grade of C (2.000) in ID 24013.
Corequisite: ID 34002.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 44015 HISTORY OF INTERIORS III-20TH CENTURY TO THE PRESENT
3 Credit Hours
Provides a thorough background of the major design periods and traditions of global civilizations from the 20th century to the present including the design of furnishings, architecture, interiors, textiles, and the decorative and fine arts. The influence of culture, geography, technology, religion and politics on design are investigated.
Prerequisite: Minimum grade of C (2.000) in ID 44014.
Corequisite: ID 44001.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ID 44041 CURRENT ISSUES IN INTERIOR DESIGN
1 Credit Hour
Structured to inform the advanced design student about issues within the design and social world and how design contributes to improving human well-being and livelihood. Focuses the student on developing an understanding that designers and creative professionals have a responsibility and are able to cause real change in the world through good design.
Prerequisite: ID 44001.
Corequisite: ID 44002.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter

ID 44505 STUDIO PROBLEMS IN INTERIOR DESIGN V
2 Credit Hours
Introduction to principles of historic design focusing on hands-on and on-site design techniques. For interior design majors only.
Prerequisite: ID 34504 and ID 44534.
Corequisite: ID 44535.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 44506 STUDIO PROBLEMS IN INTERIOR DESIGN VI
4 Credit Hours
Special problems concerning the design of large-scale commercial environments.
Prerequisite: TECH 31015 and ID 44505.
Corequisite: ARCH 30501.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 44507 STUDIO PROBLEMS IN INTERIOR DESIGN VII
4 Credit Hours
This course will provide the opportunity for a senior design thesis. Problems will be selected by the students and will represent their own area of interest.
Prerequisite: ID 44506 and ARCH 30501.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 44512 HISTORIC FURNISHING TEXTILES
2 Credit Hours
(Slashed with ID 54512) Designed to acclimate students to historic textiles created primarily for use in interior architecture. Focus is on aesthetics, design and construction. A comprehensive adaptive reuse or restoration project is required.
Prerequisite: ID 44534 and ID 44535.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 44523 INTERIOR DESIGN PROFESSIONAL PRACTICE
2 Credit Hours
A study of the business and professional practices of interior designers.
Prerequisite: ID 34504.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
**ID 44525  LIGHTING APPLICATION IN INTERIOR SPACES**  3 Credit Hours  
Design application of lighting technology for various interior spaces. Field trips to study lighting installations.  
**Prerequisite:** ID 34503.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**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 44534  HISTORY OF INTERIORS TO 1600 (WIC)**  4 Credit Hours  
A chronological study of housing and furnishings from civilization to the 15th century.  
**Prerequisite:** ID 34504; and ARTH 22006 and ARTH 22007; or ARCH 10011 and ARCH 10012; and special approval.  
**Schedule Type:** Lecture  
**Contact Hours:** 4 lecture  
**Grade Mode:** Standard Letter  
**Attributes:** Writing Intensive Course

**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 a maximum of 4 credit hours) 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:** Minimum grade of C in ID 34002.  
**Schedule Type:** Practicum or Internship  
**Contact Hours:** 12-48 other  
**Grade Mode:** Standard Letter  
**Attributes:** Experiential Learning Requirement

**ID 44611  INTERIOR DESIGN RESEARCH AND PROGRAMMING**  2 Credit Hours  
Structured to provide the student with an understanding of the research systems of inquiry related to the interior design process; the ability to demonstrate an understanding of the knowledge and tools related to the gathering of data related to the successful completion of a design project; and experience in researching, evaluating and programming of private and public spaces.  
**Prerequisite:** Minimum grade of C (2.000) in ID 34001.  
**Corequisite:** ID 44631.  
**Schedule Type:** Lecture  
**Contact Hours:** 2 lecture  
**Grade Mode:** Standard Letter

**ID 44612  INTERIOR SPECIFICATIONS AND COST ANALYSIS**  3 Credit Hours  
Promotes an understanding of specifications and cost analysis of materials and furniture utilized in the design and construction of the sustainable interior environment. Informs students about format and content of the specifications that pertain to the interior contract documentation.  
**Prerequisite:** Minimum grade of C (2.000) in ID 34001.  
**Corequisite:** ID 34002.  
**Schedule Type:** Lecture  
**Contact Hours:** 3 lecture  
**Grade Mode:** Standard Letter

**ID 44631  INQUIRY FOR EVIDENCE BASED DESIGN (WIC)**  1 Credit Hour  
Structured to provide the student with the ability 1) to apply the research systems of inquiry related to the interior design process; 2) to demonstrate an understanding of the knowledge and tools related to the gathering of data related to the successful completion of a design project; 3) to experience the research, evaluation, and programming of private and public spaces.  
**Prerequisite:** Minimum grade of C (2.000) in ID 34001.  
**Corequisite:** ID 44611.  
**Schedule Type:** Lecture  
**Contact Hours:** 1 lecture  
**Grade Mode:** Standard Letter  
**Attributes:** Writing Intensive Course

**ID 51093  VARIABLE TITLE WORKSHOP IN INTERIOR DESIGN**  1-4 Credit Hours  
(Repeatable for credit) Workshop topics dealing with variable topics related to the interior design profession. Learning experiences are provided in a wide range of areas.  
**Prerequisite:** Interior design (ID) 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 (ID) 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 (ID) major and graduate standing.  
**Schedule Type:** Individual Investigation  
**Contact Hours:** 1-3 other  
**Grade Mode:** Standard Letter-IP

**ID 54512  HISTORIC FURNISHING TEXTILES**  2 Credit Hours  
(Slashed with 44512) Designed to acclimate students to historic textiles created primarily for use in interior architecture. Focus is on aesthetics, design and construction. A comprehensive adaptive reuse or restoration project is required.  
**Prerequisite:** ID 44534 and ID 44535 and Graduate standing.  
**Schedule Type:** Lecture  
**Contact Hours:** 2 lecture  
**Grade Mode:** Standard Letter
ID 54534  HISTORY OF INTERIORS TO 1600  4 Credit Hours
A chronological study of housing and furnishings from civilization to the
15th century.
Prerequisite: Graduate standing and special approval and ID 34504; and
ARTH 22006 and ARTH 22007; or ARCH 20001 and ARCH 20002.
Schedule Type: Lecture
Contact Hours: 4 lecture
Grade Mode: Standard Letter

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: ID 54534 and 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 (LARC) 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 (LARC) 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; Landscape Architecture (LARC) major; and
Graduate standing.
Schedule Type: Studio
Contact Hours: 12 other
Grade Mode: Standard Letter

LARC 50103  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; Landscape Architecture (LARC) major; and
Graduate standing.
Schedule Type: Studio
Contact Hours: 12 other
Grade Mode: Standard Letter

LARC 60103  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; Landscape Architecture (LARC) major; and
Graduate standing.
Schedule Type: Studio
Contact Hours: 12 other
Grade Mode: Standard Letter

LARC 60104  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 60105  LANDSCAPE ARCHITECTURE STUDIO VI  6 Credit Hours
Interdisciplinary or Capstone Studio: Option of a studio with graduate
CUDC architecture and urban design students or develop individual studio
project and select faculty advisor.
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 (LARC) 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 (LARC) 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 (LARC) 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 (LARC) 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 (LARC) major and Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

LARC 60922   METHODS OF INQUIRY IN ARCHITECTURAL STUDIES  2 Credit Hours
(Cross-listed with AED 60922 + ARCH 60922) Provides comprehensive coverage of design inquiry techniques including qualitative and quantitative research methods and critical thinking skills to help students better conduct and understand research.
Prerequisite: Landscape Architecture (LARC) 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 (LARC) 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 (LARC) major and Graduate standing.
Schedule Type: Lecture
Contact Hours: 3 lecture
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 streets in 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