College of Architecture and Environmental Design

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.
- Healthcare Design - M.H.D.
- Landscape Architecture - M.L.A. I
- Landscape Architecture - M.L.A. II
- Urban Design - M.U.D.

Graduate Certificates
- Health Systems and Facilities Design

College of Architecture and Environmental Design Faculty
- Adamtey, Simon (2016), Assistant Professor
- Bayramzadeh, Sara , Assistant Professor
- Cho, Ji Young (2010), Assistant Professor, Ph.D., University of Missouri-Columbia, 2011
- Coffman, Reid R. (2012), Associate Professor
- Daniel, Ronn , Associate Professor
- Davis-Sikora, Diane M. (1997), Associate Professor, M.Arch., Harvard University, 1995
- Ferut, Joseph F. (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
- Jaminet, Jean J. (2017), Assistant Professor, M.Arch., Princeton University, 2004
- Karpinski, Joseph (1990), Senior Lecturer, M.T., Kent State University, 2005
- Lahrmer, Jill (2008), Assistant Professor, B.A., Bowling Green University, 1999
- Liu, Rui (2013), Associate Professor, Ph.D., University of Colorado-Denver, 2010
- Lucak, Frederick W. (1986), Assistant Professor, B.Arch., Kent State University, 1990
- Marshall, Cathy S. (2017), Associate Professor, M.L.Arch., Harvard University, 2003
- Meshkani, Taraneh , Assistant Professor
- Miranda, Anthony M. (2013), Lecturer, Colorado State University, 2014
- Onsarigo, Lameck M. (2016), Assistant Professor, Ph.D., Indiana State, 2016
- Patel, Tina , Assistant Professor
- Peters, Brian (2013), Assistant Professor, M.Arch., University of Illinois-Chicago, 2005
- Poustitchi, Mohammad Ebrahim (2017), Assistant Professor, M.Arch., University of California-Los Angeles, 2014
- Rieke, Jonathan , Assistant Professor
- Robison, Elwin C. (1985), Professor, Ph.D., Cornell University, 1985
- Rugare, Steven N. (1993), Associate Professor
- Safley, Robert N. , Assistant 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 D. (2012), Associate Professor, Ph.D., Universidad de Navarra, 2011
- Willoughby, William T. (2013), Associate Professor, M.A., Kent State University, 1991
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 66099  THESIS PREPARATION SEMINAR  2 Credit Hours
Designed for students writing a thesis in the Master of Science in Architecture and Environmental Design Program. Supports students development of research topics, review relevant research and scholarship, frame research questions and arguments, choose an appropriate methodology for analysis, and draft introductory and methodology sections of the thesis proposal document.
Prerequisite: AED 60922 and 60923 and 60930; and ARCH 60301; and Graduate standing and special approval.
Schedule Type: Seminar
Contact Hours: 2 other
Grade Mode: Standard Letter

AED 66199  THESIS I  6 Credit Hours
Thesis students must register for a total of 6 hours.
Prerequisite: Graduate standing and special approval.
Schedule Type: Masters Thesis
Contact Hours: 6 other
Grade Mode: Satisfactory/Unsatisfactory-IP

AED 66299  THESIS II  2 Credit Hours
Following completion of 6 credit hours of Thesis I all graduate students must continuously register for Thesis II for all subsequent academic terms (including summer) until all degree requirements are met.
Prerequisite: 6 credit hours of AED 66199; and Graduate standing and special approval.
Schedule Type: Masters Thesis
Contact Hours: 2 other
Grade Mode: Satisfactory/Unsatisfactory-IP
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 typologies 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 20111 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 20112 HISTORY OF ARCHITECTURE III 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 IV 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: Satisfactory/Unsatisfactory

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: Satisfactory/Unsatisfactory

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: 5 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: Studio
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 30002) 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 30012) 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 30101.
Schedule Type: Studio
Contact Hours: 5 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

ARCH 30112  THIRD YEAR DESIGN STUDIO II-FLORENCE, ITALY (ELR)  5 Credit Hours
(equivalent to ARCH 30102) Studio investigation with specific emphasis on understanding of the goals, objectives, intentions and parameters of urban design.
Prerequisite: Special approval.
Corequisite: ARCH 30102 or ARCH 30112.
Schedule Type: Studio
Contact Hours: 1 lecture
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement

ARCH 40001  SUSTAINABLE DESIGN (WIC)  1 Credit Hour
(Cross-listed with ARCH 50001) Research component addressing precedents, traditions, current directions in conservation of natural environment. Principles and methods of ecological design in architecture and urban design.
Prerequisite: ARCH 30102 or ARCH 30112.
Corequisite: ARCH 40101.
Schedule Type: Lecture
Contact Hours: 1 lecture
Grade Mode: Standard Letter
Attributes: Writing Intensive Course

ARCH 40002  SYSTEMS DESIGN  1 Credit Hour
(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
(Cross-listed 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
ARTH 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
ARCH 45230  FRANK LLOYD WRIGHT  3 Credit Hours
(Replaces ARCH 55230) Examination of the life, buildings and literary works of Frank Lloyd Wright with emphasis on his contributions to American art and architecture and his place in American intellectual history.
Prerequisite: ARCH 10011 and ARCH 10012.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 45240  THE SKYSCRAPER  3 Credit Hours
(Cross-listed with ARCH 55240) 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: Minimum C (2.000) grade in both ARCH 10111 and ARCH 20112.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 45241  ARCHITECTURE OF WORLD’S FAIRS  3 Credit Hours
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: ARCH 10011 and ARCH 10012.
Schedule Type: Seminar
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 45291  SEMINAR: VARIABLE TOPICS IN ARCHITECTURAL HISTORY  1-3 Credit Hours
(repeatable for a total of 3 credit hours) (Cross-listed with ARCH 55291) Content varies.
Prerequisite: Special approval.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 45391  SEMINAR: STRUCTURES III  1-3 Credit Hours
(Repealbe 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.
Prerequisite: ARCH 40302.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 45491  SEMINAR: METHODS AND MATERIALS III  1-3 Credit Hours
(Repealbe for credit) (Cross-listed with ARCH 55491) Advanced topics in methods and complex materials systems. Computer modeling and field experiences are required.
Prerequisite: ARCH 40402.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 45591  SEMINAR: ENVIRONMENTAL TECHNOLOGY III  1-3 Credit Hours
(Repeatable for credit) (Cross-listed with ARCH 55591) Variable topics in environmental technology-environmental design and energy conservation, advanced lighting techniques etc.
Prerequisite: ARCH 40502.
Schedule Type: Seminar
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 45601  ADVANCED COMPUTER APPLICATIONS  1-3 Credit Hours
(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.
Prerequisite: Special approval; admission to third year.
Schedule Type: Combined Lecture and Lab
Contact Hours: 1-3 other
Grade Mode: Standard Letter

ARCH 45620  INTRODUCTION TO PRESERVATION  1-3 Credit Hours
(Repeatable for 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.
Prerequisite: Permission.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 45621  CURRENT ISSUES IN HISTORIC PRESERVATION  1-3 Credit Hours
(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.
Prerequisite: Permission.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

ARCH 45625  EXPLORING HISTORIC STRUCTURES  3 Credit Hours
(Cross-listed with ARCH 55625) 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.
Prerequisite: Junior standing.
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 55627) A study of historic building materials with an emphasis on causes of degradation, strategies for conservation and standards for preservation.
Prerequisite: Junior or Senior standing in Architecture.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter
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  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 45794  WORKSHOP: VARIOUS TOPICS  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: Standard Letter
Attributes: Experiential Learning Requirement

ARCH 45795  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 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: VARIOUS TOPICS  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

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 50101  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 50301  STRUCTURAL SYSTEMS I  3 Credit Hours
(Slashed with ARCH 40301) A continuation of building structures, statics strength of materials and systems analysis. Emphasis is on elastic materials allowable stresses and design for wood and steel structural members and systems.
Prerequisite: ARCH 20301; and Architecture major and Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 6 other
Grade Mode: Standard Letter

ARCH 50302  STRUCTURAL SYSTEMS II  3 Credit Hours
(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 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
(Cross-listed 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 50501  ENVIRONMENTAL TECHNOLOGY I  3 Credit Hours
(Slashed with ARCH 40501) Basic principles of ecological design and architecture environmental systems including lighting, sonic and thermal systems. 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 50502  ENVIRONMENTAL TECHNOLOGY II  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: 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 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: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

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: Satisfactory/Unsatisfactory

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-IP
ARCH 60101  GRADUATE DESIGN STUDIO I  3-6 Credit Hours
Architectural studies related to buildings. Emphasis on spatial, aesthetic, environmental and functional factors in design.  
Prerequisite: Graduate standing.  
Schedule Type: Studio  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter  

ARCH 60102  GRADUATE DESIGN STUDIO II  3-6 Credit Hours
Independent design project, completed under the direction of an individual adviser selected from the graduate faculty.  
Prerequisite: ARCH 60101 and 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 60111  GRADUATE DESIGN FOUNDATIONS STUDIO  3-6 Credit Hours
Graduate-level introduction to the organizational principles and tools designers use to interpret and shape the build environment.  
Prerequisite: Graduate Standing.  
Schedule Type: Studio  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter  

ARCH 60112  GRADUATE DESIGN ARCHITECTURE STUDIO  3-6 Credit Hours
The introduction of a building design process that emphasizes the integration of program requirements with specific form typologies using architectural elements as the primary components to design shape, space, and form.  
Prerequisite: Graduate Standing.  
Schedule Type: Studio  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter  

ARCH 60113  GRADUATE DESIGN CONTEXT STUDIO  3-6 Credit Hours
Studio investigation that includes consideration of program, site, context, materiality, and tectonics. Specific emphasis on understanding the influences of site, context, and urban design; including the role of social and cultural influences on the built environment.  
Prerequisite: Graduate standing.  
Schedule Type: Studio  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter  

ARCH 60114  GRADUATE DESIGN SYSTEMS STUDIO  3-6 Credit Hours
Studio investigation of comprehensive design concerns including the integration of building systems and implementation of sustainable strategies.  
Prerequisite: Graduate standing.  
Schedule Type: Studio  
Contact Hours: 3-6 other  
Grade Mode: Standard Letter  

ARCH 60150  PROJECT PROGRAMMING  2-3 Credit Hours
Study and discussion of the notion of program in architecture and the principles of project programming. Case study analysis and preparation of a comprehensive program for an architectural project.  
Prerequisite: Graduate standing; ARCH 60101 and 60301.  
Schedule Type: Lecture  
Contact Hours: 2-3 lecture  
Grade Mode: Standard Letter  

ARCH 60211  GRADUATE GLOBAL HISTORY OF ARCHITECTURE I  3 Credit Hours
Global history of architecture from Neolithic times through the 16th Century.  
Prerequisite: Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

ARCH 60212  GRADUATE GLOBAL HISTORY OF ARCHITECTURE II  3 Credit Hours
Global history of architecture from the 17th century to the early 21st century.  
Prerequisite: ARCH 60211 and Graduate standing.  
Schedule Type: Lecture  
Contact Hours: 3 lecture  
Grade Mode: Standard Letter  

ARCH 60213  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 60601  TOOLS OF REPRESENTATION  3 Credit Hours
Tools of representation: Introduction to the software used in the digital environment for modeling and representing architectural schemes. Course will cover: Software interface, x,y,z coordinates and navigation, NURBS modeling, and Mesh Modeling. The course will enable students to three-dimensionally design and represent massing studies, building details, and the development of architectural elements and site context.  
Prerequisite: Graduate standing.  
Schedule Type: Combined Lecture and Lab  
Contact Hours: 3 other  
Grade Mode: Standard Letter
ARCH 60602  TOOLS OF FABRICATION  3 Credit Hours
Tools of fabrication: The course covers advanced three-dimensional modeling tools and the different methods for outputting digital models into the physical environment. The course covers 3D printing, laser cutting, CNC milling, and vacuum forming.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 60603  TOOLS OF SIMULATION  3 Credit Hours
Tools of Simulation: The course covers two-dimensional and three-dimensional simulation platforms and the theory behind the tools to generate and simulate architectural ideas and environments. Animation techniques and robotic integration will operate as the bridge between the digital and the physical environment.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 60604  TOOLS OF CODING  3 Credit Hours
Tools of coding: The course covers visual parametric software and coding languages to generate and develop architectural ideas. The course integrates the tools and theory of coding and parametric software and their evolution in the architecture field.
Prerequisite: Graduate standing.
Schedule Type: Combined Lecture and Lab
Contact Hours: 3 other
Grade Mode: Standard Letter

ARCH 60922  METHODS OF INQUIRY IN ARCHITECTURAL STUDIES  2 Credit Hours
(Cross-listed with AED 60922 and LARC 60922) Provides a comprehensive coverage of architectural inquiry techniques including qualitative and quantitative research methods and critical thinking skills to help students better conduct and understand research.
Prerequisite: ARCH 60101 and 60301 and Graduate standing and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ARCH 65001  PROFESSIONAL PRACTICE: REAL ESTATE AND DEVELOPMENT  2-4 Credit Hours
Introduction to the economic, social, ethical and legal impact on/ 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 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 66991  SEMINAR: VARIABLE TOPIC  1-4 Credit Hours
(Repeatable for credit) Seminar on a variable topic.
Prerequisite: Graduate standing.
Schedule Type: Seminar
Contact Hours: 1-4 other
Grade Mode: Standard Letter

ARCH 66992  FIELD STUDY  1-3 Credit Hours
(Repeatable for credit) Field study in architecture.
Prerequisite: Graduate standing.
Schedule Type: Field Experience
Contact Hours: 1-3 other
Grade Mode: Standard Letter-IP

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

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

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

ARCH 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

ARCH 10122  REPRESENTATION OF DESIGN II  3 Credit Hours
Continuation of ARCH 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: ARCH 10121 or ARCH 10101.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

ARCH 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

ARCH 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: ARCH 20121 or ARCH 20101.
Schedule Type: Studio
Contact Hours: 4 other
Grade Mode: Standard Letter

ARCH 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

ARCH 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

Architectural Studies (ARCS)

ARCH 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

ARCH 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

ARCH 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: ARCH 20121 or ARCH 20101.
Schedule Type: Studio
Contact Hours: 4 other
Grade Mode: Standard Letter

ARCH 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

ARCH 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 30421  ENVIRONMENTAL IMPERATIVES  3 Credit Hours  
Course introduces students to various viewpoints on sustainable built environments with emphasis on the ethical, ecological, social, political, economic, and technical implications. Engages students in debates on theoretical and practical positions on sustainability, and the organizations that support sustainable practices in the building industry. Prerequisite: AED 10102 or ARCH 10012 or Sustainability Minor.  
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 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 33092  CONSTRUCTION MANAGEMENT INTERNSHIP (ELR) (WIC)  1-3 Credit Hours
Supervised work-study experience in approved construction related business relative to a student’s construction management major or minor. The course can be taken for three (3) credit hours per semester for full time employment (450 or more total hours for the duration of the semester) or two (2) credit hour for part-time (300-450 total hours for the duration of the semester). Repeatable to maximum of 6 credits. To repeat the course for credit, the student must assume a different position or responsibilities if employed by the same organization, or the student must be employed by a different company. Construction Management students are required to take (3) credit hours at one time at least once.
Prerequisite: Construction Management (COMA) major or minor; minimum 2.250 overall GPA; and Sophomore standing.
Schedule Type: Practicum or Internship
Contact Hours: 10-30 other
Grade Mode: Standard Letter
Attributes: Experiential Learning Requirement, Writing Intensive Course

CMGT 37295  SPECIAL TOPICS IN CONSTRUCTION MANAGEMENT  1-3 Credit Hours
Analysis of significant and current issues in Construction Management not covered in regular courses. Offered when opportunities and resources permit; the topic is announced when the course is scheduled.
Prerequisite: None.
Schedule Type: Lecture
Contact Hours: 1-3 lecture
Grade Mode: Standard Letter

CMGT 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 41047  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. This course utilizes software applications to create the BIM model and integrate the construction schedule and estimate.
Prerequisite: TECH 13580.
Schedule Type: Lecture
Contact Hours: 3 lecture
Grade Mode: Standard Letter

CMGT 42050 INTERNATIONAL CONSTRUCTION MANAGEMENT 3 Credit Hours
The 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

Healthcare Design (HCD)

HCD 60000  HEALTHCARE DESIGN STUDIO  6 Credit Hours
Course integrates and applies expert knowledge in healthcare design. Projects demonstrate solutions through design, case study analysis and in collaboration with industry and healthcare partners.
Prerequisite: Graduate standing.
Schedule Type: Studio
Contact Hours: 6 other
Grade Mode: Standard Letter

HCD 60092  PRACTICAL EXPERIENCE  1 Credit Hour
Course offers students three options: internship, observation or research. Tracks allow for first-hand experience with a healthcare facility design project or environment; and to develop professional communication skills.
Prerequisite: Graduate standing.
Schedule Type: Practicum or Internship
Contact Hours: 1 other
Grade Mode: Standard Letter

HCD 60100  HEALTHCARE SYSTEMS WORKSHOP  3 Credit Hours
Course integrates the knowledgebase gained in other core courses into design evaluations and solutions, helping students apply what they have learned in practice. Focus is on learning about other healthcare systems, design trends and research applications. Students deliver a design project and/or a report of the field trip.
Prerequisite: Graduate Standing.
Schedule Type: Workshop
Contact Hours: 3 other
Grade Mode: Standard Letter

HCD 60101  HEALTHCARE DESIGN WORKSHOP: CULTURE AND ETHICS  3 Credit Hours
Course integrates the knowledgebase gained in other courses into design evaluations and solutions, helping students apply what they have learned in practice. Focus is on a small design project.
Prerequisite: Graduate standing.
Schedule Type: Workshop
Contact Hours: 3 other
Grade Mode: Standard Letter

HCD 60198  MASTER'S PROJECT IN HEALTHCARE DESIGN I  3 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, Research
Contact Hours: 3 other
Grade Mode: Standard Letter

HCD 60298  MASTER'S PROJECT IN HEALTHCARE DESIGN II  6 Credit Hours
Focused on an individual student's defined master's project topic and overseen by a faculty advisor and committee members. Concludes in the design of the specific issue detailed by the student in HCD 60198.
Prerequisite: HCD 60198; and Graduate standing and special approval.
Schedule Type: Master's Project
Contact Hours: 6 other
Grade Mode: Standard Letter

HCD 63001  EVIDENCE-BASED DESIGN IN HEALTHCARE  2 Credit Hours
Course offers the knowledge and skills required for applied research, and the use of credible data in the design decision-making process. Encompasses the evidence-based design (EBD) process, and how it applies in projects.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter
HCD 63002 HEALTHCARE FACILITIES  2 Credit Hours
An investigation of the history and types of healthcare facilities, design
guidelines and basic planning and programming requirements for their
planning and design.
Prerequisite: Graduate standing and special approval.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HCD 63003 ENVIRONMENTAL SYSTEMS AND MATERIALS IN
HEALTHCARE  2 Credit Hours
An investigation of architectural finishes, furnishings, mechanical
systems and lighting in healthcare settings.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HCD 63004 ENVIRONMENTS OF CARE AND PATIENT POPULATIONS
2 Credit Hours
Course explores the functional, operational and person psychosocial
requirements for different patient populations. Focus is on how design
can respond to specific patient population needs.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

HCD 63005 PATIENT SAFETY AND SYSTEMS THINKING  2 Credit
Hours
Course introduces systems engineering initiative for patient safety as a
major interdisciplinary approach known as systems thinking. Covers the
basics of human factors in healthcare and the interactive relationship
between humans and the environment; including the factors contributing
to patient safety in healthcare settings, and the role environments play in
patient safety.
Prerequisite: Graduate standing.
Schedule Type: Lecture
Contact Hours: 2 lecture
Grade Mode: Standard Letter

ID 14012 DESIGN AND HUMAN BEHAVIOR  3 Credit Hours
Introduces the concepts of human factors, the way in which humans
relate to the physical environment within cultural milieus, and
investigates applications of these factors in the design of interiors with
consideration of specialized populations.
Prerequisite: 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

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 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 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 14512. 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: Interior Design (ID) major and Sophomore standing.
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 34024  STUDIO PROBLEMS IN INTERIOR DESIGN III  4 Credit
Hours
Special problems concerning design of small to moderate size
commercial interior space.
Prerequisite: ID 24502.
Pre/corequisite: PHY 13001.
Schedule Type: Lecture, Studio
Contact Hours: 2 lecture, 2 other
Grade Mode: Standard Letter

ID 34503  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 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
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Description</th>
<th>Prerequisite</th>
<th>Corequisite</th>
<th>Schedule Type</th>
<th>Contact Hours</th>
<th>Grade Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 34522</td>
<td>METHODS AND MATERIALS FOR INTERIOR DESIGN</td>
<td>3</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 34002.</td>
<td>ID 24502.</td>
<td>Lecture</td>
<td>3 lecture</td>
<td>Standard Letter</td>
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<tr>
<td>ID 44002</td>
<td>INTERIOR DESIGN STUDIO VI-COMMUNITY ENGAGEMENT</td>
<td>5</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 44002.</td>
<td></td>
<td>Lecture</td>
<td>10 other</td>
<td>Standard Letter</td>
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<tr>
<td>ID 44001</td>
<td>INTERIOR DESIGN STUDIO V-SPECIALIZED FOCUS AND POPULATIONS</td>
<td>5</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 34002.</td>
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<td>Studio</td>
<td>10 other</td>
<td>Standard Letter</td>
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<tr>
<td>ID 44011</td>
<td>INTEGRATED DESIGN PRACTICE AND PROJECT MANAGEMENT</td>
<td>2</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 44612.</td>
<td>ID 44001.</td>
<td>Lecture</td>
<td>2 lecture</td>
<td>Standard Letter</td>
</tr>
<tr>
<td>ID 44105</td>
<td>SPECIAL TOPICS IN INTERIOR DESIGN</td>
<td>1-4</td>
<td>Workshops dealing with variable topics related to the interior design profession. Learning experiences provided in a broad spectrum of specialties.</td>
<td>Interior design (ID) major.</td>
<td>ID 44534 and ID 44535.</td>
<td>Lecture</td>
<td>1-4 other</td>
<td>Standard Letter</td>
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<td>ID 44014</td>
<td>HISTORY OF INTERIORS II-16TH THROUGH 19TH CENTURY</td>
<td>3</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 24013.</td>
<td>ID 44002.</td>
<td>Lecture</td>
<td>3 lecture</td>
<td>Standard Letter</td>
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<tr>
<td>ID 44015</td>
<td>HISTORY OF INTERIORS III-20TH CENTURY TO THE PRESENT</td>
<td>3</td>
<td>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.</td>
<td>Minimum grade of C (2.000) in ID 44014.</td>
<td>ID 44001.</td>
<td>Lecture</td>
<td>3 lecture</td>
<td>Standard Letter</td>
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<td>ID 44041</td>
<td>CURRENT ISSUES IN INTERIOR DESIGN</td>
<td>1</td>
<td>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.</td>
<td>ID 44001.</td>
<td>ID 44002.</td>
<td>Lecture</td>
<td>1 lecture</td>
<td>Standard Letter</td>
</tr>
<tr>
<td>ID 44505</td>
<td>STUDIO PROBLEMS IN INTERIOR DESIGN V</td>
<td>2</td>
<td>Introduction to principles of historic design focusing on hands-on and on-site design techniques. For interior design majors only.</td>
<td>ID 34504 and ID 44534.</td>
<td>ID 44535.</td>
<td>Lecture</td>
<td>2 lecture</td>
<td>Standard Letter</td>
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</tbody>
</table>
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 acculturate 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 other
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 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 50104 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 60105 LANDSCAPE ARCHITECTURE STUDIO V 6 Credit Hours
Interdisciplinary or Capstone Studio: Option of a studio with graduate CUDC architecture and urban design students or development of an individual studio project with a selected faculty advisor. 
Prerequisite: LARC 60104 and Graduate standing.
Schedule Type: Studio
Contact Hours: 12 other
Grade Mode: Standard Letter

LARC 60106 LANDSCAPE ARCHITECTURE STUDIO VI 6 Credit Hours
Interdisciplinary or Capstone Studio 2: Option of a studio with graduate CUDC architecture and urban design students or develop individual studio project and select faculty 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
methods 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 60501  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 60601  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.

LARC 60922

LARC 60923

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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