Architecture

Tyler Architecture programs stress critical inquiry and innovation as part of the creative process, teaching students how to intervene in the physical world through carefully considered acts of making. Coursework engages the city, exploring and addressing the ethical, cultural, and social dimensions of architecture and the urban environment, preparing students to become effective and responsible leaders in practices and discourses surrounding the complex global and local issues of our time.

Tyler Architecture offers the following undergraduate degrees:

- Bachelor of Science in Architecture, pre-professional degree

- Bachelor of Science in Facilities Management

- Bachelor of Science in Historic Preservation

All of the undergraduate programs prepare students for continued study in the National Architectural Accrediting Board (NAAB) accredited Master of Architecture professional program which has 1, 2, and 3 year tracks to accommodate students from different undergraduate majors.

- 1-year accelerated track for eligible Temple pre-professional students

- 2-year track for students with a 4-year pre-professional bachelor's degree program in architecture

- 3-year track for students with a bachelor's degree in other disciplines or in a non-pre-professional architecture program.

The undergraduate architecture curricula share a common two-year Foundation Program. Upon successful completion of this preparatory program, students continue in the Bachelor of Science in Facilities Management, the Bachelor of Science in Historic Preservation, or Bachelor of Science in Architecture. An application process is used to assess the best fit for each student. A place in the B.S. in Facilities Management or the B.S. in Historic Preservation is guaranteed for all students in good academic standing. Admission to the Bachelor of Science in Architecture is competitive.

Students in the Bachelor of Science in Architecture program are eligible to apply for the +1 accelerated undergraduate-graduate program. The program enables qualified and eligible students to complete the 60-credit Master of Architecture (M Arch) degree within a year after graduation with the Bachelor of Science in Architecture pre-professional degree. Eligible undergraduate students use up to 12 specified graduate credits to fulfill requirements for their undergraduate degree. Upon graduation from their undergraduate program, students move seamlessly into their graduate program. At the end of the contiguous fifth year (including two summer semesters), students will receive a Master of Architecture degree. To be eligible for the program, students must be declared Architecture majors; have a minimum 3.25 cumulative GPA in at least 45 credits of coursework taken at Temple; be able to complete their undergraduate degree in four full-time semesters (beginning with their first semester taking a graduate course as an undergraduate); and be able to complete the graduate degree in one additional year including two summer semesters of graduate coursework.

Architecture Department Laptop Policy

Laptops are required for all students entering Architecture Department programs beginning in Fall 2018. The computer and its corresponding digital tools, such as laser cutters, 3D printers, and digital fabrication machines, have become an integral part of architectural pedagogy and the design studio environment. All architecture students begin working digitally in their freshman representation courses within the Architecture Foundations program. This Laptop Policy has been implemented to provide advantageous learning environments that guide students towards the acquisition of tools and skillsets that are most appropriate for the furthering of both their academic and professional journeys. Students may purchase either a PC Laptop or MacBook.

Device Specifications:

PC Laptop Specifications

- Screen: 15" or 17"

- Processor: Multi-Core Intel i7 minimum; multi-thread recommended for faster rendering tasks

- RAM Memory: 8 GB minimum; 16 GB recommended

- Hard Drive: 1 TB minimum; external hard drive recommended for data backup

- Graphics Card: 2 GB VRAM minimum; more memory and performance capability recommended

    - MUST support OpenGL version 2, shader version 1.2 (or better)

- Wireless Card: Built-in default wireless

- Operating System: Latest version of Windows 10 Professional

- System Type: 64-bit

Mac Laptop Specifications

- Screen: 15" MacBook Pro Retina

- Processor: Multi-Core Intel 2.7GHz -i7 or above

- RAM Memory: 16 GB

- Hard Drive: 1 TB minimum; external hard drive recommended for data backup

- Graphics Card: Radeon Pro 460 with 4 GB video memory minim

- Wireless Card: Default

- Operating System: Latest Mac OS version + latest version of Windows 8.1 Professional or Windows 10 Professional

- System Type: 64-bit

Software:

Free software

- Microsoft Word, Excel, and PowerPoint (available through Temple Computer Services)

- Adobe Creative Cloud: Photoshop, Illustrator, InDesign, and Acrobat Pro (available through Temple Computer Services)

- AutoCad 2018, Revit 2018, and 123D Make app/Mesh Mixer app (available for download after registration with the Autodesk Education Community)

- Windows Media Player (or similar for avi and .mov playback); typically available for free

- Microsoft Defender or similar; typically provided by default upon purchase of laptop

Software to purchase

- McNeel Rhino 5 or 6 or Rhino 5 for Mac Educational Version: Rhino is available to students as a one-time download for $195. Students can keep the software post-graduation and receive discounts in future product upgrades.

For latest laptop requirements and recommendations, please see full policy on the Architecture (https://tyler.temple.edu/programs/architecture) web site.

Study Abroad

All Architecture Department students have the opportunity to study abroad for a semester at Temple Rome or Temple Japan. Admission to these programs is competitive. Applications are made through the Temple Education Abroad Office.

Students who plan to study abroad should arrange to meet with an academic advisor as early as possible, preferably during the freshman year, in order to plan the sequence of courses that would be most appropriate. While students majoring in Architecture may study in Rome in the fall or spring semester, Japan is only an option for the spring. Because of program requirements in the fall semesters of junior and senior years, Historic Preservation and Facilities Management majors should consider attending the Rome or Japan program only during the spring semester of the junior year.

Rashida Ng, Chair
Tyler School of Art and Architecture
Architecture Building, Room 204
2001 North 13th Street
Philadelphia, PA 19122
215-204-8813
rashida.ng@temple.edu

Robert Z. Shuman, Architecture Program Head
Architecture Building
2001 North 13th Street
Philadelphia, PA 19122
215-204-4300
robert.shuman@temple.edu

Seher Erdogan-Ford, Architecture Foundations Advisor
Architecture Building, Room 138

2001 North 13th Street
Philadelphia, PA 19122
215-204-3204
seher.erdogan@temple.edu

Programs

- Bachelor of Science in Architecture (http://bulletin.temple.edu/undergraduate/tyler/architecture/bs-architecture)
- Bachelor of Science in Facilities Management (http://bulletin.temple.edu/undergraduate/tyler/architecture/bs-facilities-management)
- Bachelor of Science in Historic Preservation (http://bulletin.temple.edu/undergraduate/tyler/architecture/bs-historic-preservation)

Courses

ARCH 0835. Guerrilla Altruism: A Mini-Manual of Subversive Activism. 3 Credit Hours.
A multi-disciplinary investigation into the unorthodox strategies deployed by contemporary guerrilla artists and activists, reformers and humanitarians, eventually culminating in the design and realization of one or more small-scale humanitarian interventions within Temple's surrounding communities. NOTE: This course fulfills the Human Behavior (GB) requirement for students under GenEd and Individual & Society (IN) for students under Core.

Course Attributes: GB

Repeatability: This course may not be repeated for additional credits.

ARCH 0875. Architecture and the American Cultural Landscape. 3 Credit Hours.
This course explores the relation of the physical environment, understood as both given and constructed, to the larger and more ephemeral cultural context which it at once delimits and enables. The resultant scene-like spatial situations have been described within some academic disciplines as "cultural landscapes," a term meant to describe distinct geographical areas or properties uniquely representing the combined work of nature and humans. Deploying this concept of cultural landscapes as a framework, the course will plumb American culture with an emphasis on its physical dimension, exploring the ways that culture is engaged, reflected, and modified in the substance and configuration of those places wherein and through which we live our individual and collective lives. The course will ask students to explore how geography, topography, ecology, landscape, economics, and politics have influenced the reading and making of the American cultural landscape, and, perhaps more importantly, how the corporeal characteristics of constructed places have in turn shaped cultural developments and impacted, by extension, our world. At base, then, the course facilitates consideration of the fundamental interdependencies of nature, human nature, and the constructed environment in the context of U.S. culture. The politics of place are central to these explorations, but do not encompass them, since place intersects U.S. culture and society on many extra-political levels. The course will be founded on historical precedent and case studies, considered in light of key texts from various disciplines including urbanism, architecture, geography, film, philosophy, fiction, anthropology, and sociology, topical discussion, site visits, and the students' own analyses. NOTE: This course fulfills the U.S. Society (GU) requirement for students under GenEd. Students cannot receive credit for this course if they have successfully completed ARCH 0975.

Course Attributes: GU

Repeatability: This course may not be repeated for additional credits.

ARCH 0935. Honors Guerrilla Altruism: A Mini-Manual of Subversive Activism. 3 Credit Hours.
A multi-disciplinary investigation into strategies deployed by contemporary community based architects, artists and activists. The course engages community groups and results in collaborative planning and design strategies, proposals, and projects in Philadelphia and surrounding communities. NOTE: This course fulfills the Human Behavior (GB) requirement for students under GenEd.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: GB, HO

Repeatability: This course may not be repeated for additional credits.

ARCH 0975. Honors Architecture & the American Cultural Landscape: Physical Dimensions of Cultural Settings. 3 Credit Hours.
This course explores the relation of the physical environment, understood as both given and constructed, to the larger and more ephemeral cultural context which it at once delimits and enables. The resultant scene-like spatial situations have been described within some academic disciplines as "cultural landscapes," a term meant to describe distinct geographical areas or properties that represent the combined work of nature and humans. Deploying this concept of cultural landscapes as a framework, the course will plumb American culture with an emphasis on its physical dimension, exploring the ways that culture is engaged, reflected, and modified in the substance and configuration of those places wherein and through which we live our individual and collective lives. The course will ask students to explore how geography, topography, ecology, landscape, economics, and politics have influenced the reading and making of the American cultural landscape, and, perhaps more importantly, how the corporeal characteristics of constructed places have in turn shaped cultural developments and impacted, by extension, our world. At base, then, the course facilitates consideration of the fundamental interdependencies of nature, human nature, and the constructed environment in the context of U.S. culture. The politics of place are central to these explorations, but do not encompass them, since place intersects U.S. culture and society on many extra-political levels. The course will be founded on historical precedent and case studies, considered in light of key texts (from various disciplines including urbanism, architecture, geography, film, philosophy, fiction, anthropology, and sociology), topical discussion, site visits, and the students' own analyses. NOTE: This course fulfills the U.S. Society (GU) requirement for students under GenEd. Students cannot receive credit for this course if they have successfully completed ARCH 0875.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: GU, HO

Repeatability: This course may not be repeated for additional credits.

ARCH 1001. Introduction to Design and the Environment. 3 Credit Hours.
An introduction to the complex and contingent relationship between architects and the environments in which they intervene. Using contemporary and historical materials, students will begin to understand how architects establish and position design processes in response to their social, technological, and material situations. Coursework includes both position papers in response to particular reading topics as well as diagrammatic interrogations of the city around us. NOTE: (1) Open to non-majors. (2) A required course for all students interested in majoring in architecture and an elective university Core course in the Arts category. (3) This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university Gen Ed requirements. See your advisor for further information.

Course Attributes: AR

Repeatability: This course may not be repeated for additional credits.

ARCH 1011. Visual Literacy for Architects 1. 3 Credit Hours.
This course focuses on the development of visual literacy, graphic techniques, and 3D formal exploration. Through projects supported by research, graphically-based exercises, and formal investigations, students will be exposed to the process of representation in architecture. Units dealing with line, patterning, surface articulation, form, and assembly will be explored through 2D and 3D analog constructions. Thematic concepts linked to each unit will be presented through the work and representation of architects and artists. NOTE: Course previously titled "Design Representation I."

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

ARCH 1012. Visual Literacy for Architects 2. 3 Credit Hours.
This course continues to focus on the development of visual literacy, graphical techniques, and 3D formal exploration. Through projects supported by research, graphically-based exercises, and formal investigations, students will be exposed to the process of representation in architecture. Methods of deconstruction and filtering, narrative assemblies, motion systems, propositional imagery, and visual assembly will be explored through 2D and 3D analog and digital constructions. Thematic concepts linked to each unit will be presented through the work and representation of architects and artists. NOTE: Course previously titled "Design Representation II."

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

ARCH 1013. Architectural Representation for Non-Majors. 3 Credit Hours.
Introduction to architectural representation and design. This is a studio based course for non-majors. Students are introduced to 2D and 3D architectural design graphic techniques, and engage in drawing and model making in a studio setting. Note: This course may not count as an Architecture elective course for the BS in Architecture, BS in Facilities Management, BS in Architectural Preservation, BS in Historic Preservation or Certificate in Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

ARCH 1017. Photography and Visual Literacy. 3 Credit Hours.
Photography is explored as a visual language, complete with vocabulary, syntax, and modes of expression. This course introduces the principles of visual design that are particularly important for creating articulate and aesthetically engaging photographs. Using their own digital cameras, students develop sufficient technical competence to be able to make photographs that investigate the fundamental issues of visual design, in the context of environmental studies. NOTE: This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: AR

Repeatability: This course may not be repeated for additional credits.

ARCH 1031. Design Fundamentals I. 4 Credit Hours.
Exploration of the fundamental principles of design, with an emphasis on the body in the natural landscape; introduction to landscape research and site analysis; consideration of design logics drawn from nature - natural systems, processes and patterns; introduction to the desk critique and design review as teaching methods.

Repeatability: This course may not be repeated for additional credits.

ARCH 1032. Design Fundamentals II. 4 Credit Hours.
Geometry, measurement and fabrication processes as the basis of design; consideration of material processes of form making and methods of assembly - stacking, folding, bending, folding etc.; development of rigorous design thinking through making; integration of material, craft, tectonic and visual practice; further development of the desk critique and design review as teaching methods.

Repeatability: This course may not be repeated for additional credits.

ARCH 1196. History of Form of Cities. 3 Credit Hours.
Study of the physical design of cities with particular emphasis on the emergence of settlement patterns and their relationship to landforms and social intentions. NOTE: This course can be used to satisfy a university Core Arts (AR) and Writing Intensive (WI) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: AR

Repeatability: This course may not be repeated for additional credits.

ARCH 1502. Investigations into Built Environment Professions. 1 Credit Hour.
This course for entry level students in Architecture and Environmental Design introduces students to educational and career paths in the built environment professions (architecture, architectural preservation, community development, facilities management, horticulture, landscape architecture, and city planning). Note: Prior to fall 2017, the course title was "Investigations in Architecture."

College Restrictions: Must be enrolled in one of the following Colleges: Art Architecture, Tyler School.

Repeatability: This course may not be repeated for additional credits.

ARCH 1996. Honors History of Form of Cities. 3 Credit Hours.
Study of the physical design of cities with particular emphasis on the emergence of settlement patterns and their relationship to landforms and social intentions. NOTE: This course can be used to satisfy a university Core Arts (AR) and Writing Intensive (WI) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: AR, HO

Repeatability: This course may not be repeated for additional credits.

ARCH 2121. Foundation Architectural Design 1. 4 Credit Hours.
The development of design logics drawn from natural systems, processes and measurement; introduction to landscape research and site analysis; development of the desk crit as a teaching method; craft based modes of drawing, model making, and visualization; emphasis on graphic and spatial relationships, active plotting and site analysis. Scale: the body in the natural landscape.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)
AND (ARCH 1012|Minimum Grade of C-|May not be taken concurrently
OR AR12 Y|May not be taken concurrently)

ARCH 2122. Foundation Architectural Design 2. 4 Credit Hours.
Developing rigorous design thinking through making and the integration of material, craft, tectonic and visual practice. Further development of the design crit plus methods of communicating design objectives. Scale: artifact, body and spatial envelope.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)
AND (ARCH 1012|Minimum Grade of C-|May not be taken concurrently
OR AR12 Y|May not be taken concurrently)
AND (ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently)

ARCH 2123. Facility Management Foundation I. 3 Credit Hours.
Studio with a focus on interior architecture, space occupation, and qualities of space. Analysis and practical application of use of space, adjacencies, to provide a general understanding of place making, methods of construction, tectonics and detailing as design concerns; introduction to precedent study as research technique.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Co-requisites: ARCH 2153.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)
AND (ARCH 1012|Minimum Grade of C-|May not be taken concurrently
OR AR12 Y|May not be taken concurrently)

ARCH 2124. Facility Management Foundation II. 3 Credit Hours.
Studio with environmental sustainability focus for facility management - energy and resource use, hydrology, sustainable materials, infrastructure and building methods, recycling, environmental performance and quality; emphasis on systems and details (very large and very small); development of techniques for environmental analysis (observation, data analysis, etc.); development of ecological and environmentally responsive design proposals; program development; introduction to design collaboration.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Co-requisites: ARCH 2154.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently
OR ARCH 2123|Minimum Grade of C-|May not be taken concurrently
OR AR23 Y|May not be taken concurrently.

ARCH 2141. Architectural History: Ancient through Renaissance. 3 Credit Hours.
Traces the history of Western architecture from the ancient world to the high renaissance and mannerism of the late 16th century. The evolution of architectural thought, various formal languages (styles) and theoretical concepts are studied through the examination of selected buildings within their specific political, social, economic, and cultural milieu. Emphasis on the analysis of the ancient temple and the Christian church. NOTE: This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: AR

Repeatability: This course may not be repeated for additional credits.

ARCH 2142. Architectural History: Renaissance through 20th Century. 3 Credit Hours.
Traces the history of Western architecture from the 17th century through the 20th century. The evolution of architectural thought, various languages (styles) and theoretical concepts studied through the examination of selected buildings within their specific political, social, economic, and cultural milieu. Analysis of the significant buildings of the baroque and rococo, the neo-classic and the romantic, modernist, and post-modernism periods. NOTE: This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Course Attributes: AR

Repeatability: This course may not be repeated for additional credits.

ARCH 2151. Architecture, Technology, and the Environment. 3 Credit Hours.
Introduction to behavioral, environmental and technological factors in relation to the building design process. Basic exploration of functional, sustainable and material aspects of architecture.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1001|Minimum Grade of C-|May not be taken concurrently
OR AR01 Y|May not be taken concurrently)
AND (ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)

ARCH 2153. Facility Management Case Study Research I. 1 Credit Hour.
Case study research course focused on available products and applications of architectural interiors. This is a one-credit lab component for ARCH 2123: Facility Management Foundation I.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Co-requisites: ARCH 2123.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)
AND (ARCH 1012|Minimum Grade of C-|May not be taken concurrently
OR AR12 Y|May not be taken concurrently)

ARCH 2154. Facility Management Case Study Research II. 1 Credit Hour.
Case study research course focused on available products, applications, and issues pertaining to sustainable architecture. This is a one-credit lab component for ARCH 2124: Facility Management Foundation II.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Co-requisites: ARCH 2124.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently
OR ARCH 2123|Minimum Grade of C-|May not be taken concurrently
OR AR23 Y|May not be taken concurrently.

ARCH 2941. Honors Architectural History: Ancient through Renaissance. 3 Credit Hours.
Traces the history of Western architecture from the ancient world to the high renaissance and mannerism of the late 16th century. The evolution of architectural thought, various formal languages (styles) and theoretical concepts are studied through the examination of selected buildings within their specific political, social, economic, and cultural milieu. Emphasis on the analysis of the ancient temple and the Christian church. NOTE: This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: AR, HO

Repeatability: This course may not be repeated for additional credits.

ARCH 2942. Honors Architectural History: Renaissance through the 20th Century. 3 Credit Hours.
Traces the history of Western architecture from the 17th century through the 20th century. The evolution of architectural thought, various languages (styles) and theoretical concepts studied through the examination of selected buildings within their specific political, social, economic, and cultural milieu. Analysis of the significant buildings of the baroque and rococo, the neo-classic and the romantic, modernist, and post-modernism periods. NOTE: This course can be used to satisfy the university Core Arts (AR) requirement. Although it may be usable towards graduation as a major requirement or university elective, it cannot be used to satisfy any of the university GenEd requirements. See your advisor for further information.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: AR, HO

Repeatability: This course may not be repeated for additional credits.

ARCH 3010. Seminar: Special Topics in Communications. 1 to 3 Credit Hour.
Special seminar dealing with current topics in communications in the field of architecture. NOTE: Course may be taken more than once for credit when each topic is unique.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3012. Computer Aided Facility Management. 3 Credit Hours.
Consideration of current trends and practices in computer aided facility management (CAFM), computerized maintenance management systems (CMMS) and integrated computer-aided design (CAD) applications and databases.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Facilities Management.

Repeatability: This course may not be repeated for additional credits.

ARCH 3013. Project Planning & Programming. 3 Credit Hours.
A course covering the general processes related to the planning, programming, design, construction and occupancy of facilities, including long range, strategic and tactical planning, the relationship between facility planning and business planning, organization of sites, buildings and interiors. Also covered are specific tools and techniques for these functions, including design and construction documentation and contracts, facility inventories, space planning and relocation management, construction and installation specifications, value engineering, post-occupancy evaluation, contract management and cost estimating techniques.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 1011|Minimum Grade of C-|May not be taken concurrently
OR AR11 Y|May not be taken concurrently)
AND (ARCH 1012|Minimum Grade of C-|May not be taken concurrently
OR AR12 Y|May not be taken concurrently)
AND (ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently
OR (ARCH 2123|Minimum Grade of C-|May not be taken concurrently
AND ARCH 2153|Minimum Grade of C-|May not be taken concurrently))

ARCH 3020. Special Topics Studio. 6 Credit Hours.
Special design studio. Topics vary with year and instructor. Consult Architecture office for more information.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3030. Special Topics in Design. 3 to 6 Credit Hours.
Special studio dealing with issues of architectural design. Topics vary with year and instructor. Consult Architecture office for more information. May be taken more than once for credit when each topic is unique. NOTE: Architecture majors only.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3040. Seminar: Special Topics in History and Theory. 3 Credit Hours.
Special seminar dealing with history and theory of architecture. Topics vary with year and instructor. Consult Architecture Program office for more information. NOTE: Course may be taken more than once when each topic is unique.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3050. Seminar: Special Topics in Technology. 1 to 3 Credit Hour.
Special seminar dealing with current topics in digital or building technology in the field of architecture. NOTE: Course may be taken more than once for credit when each topic is unique.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3070. Seminar: Special Topics in Site and Context. 1 to 3 Credit Hour.
Special seminar dealing with current topics in site and context in the field of Architecture. NOTE: Course may be taken more than once for credit when each topic is unique.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3080. Seminar: Special Topics in Behavior & Culture. 1 to 3 Credit Hour.
Special seminar dealing with current topics in behavior and culture in the field of architecture. NOTE: Course may be taken more than once for credit when each topic is unique.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may be repeated for additional credit.

ARCH 3096. Vernacular Architecture. 3 Credit Hours.
Study of vernacular architecture as an embodiment of site, culture, indigenous materials and craft.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Facilities Management, Architectural Preservation, Historic Preservation.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

ARCH 3097. Introduction to Facility Management. 3 Credit Hours.
Overview of the profession of facility management, including the organizational, managerial, ethical and legal principles behind facility management services. The course includes the history of facility management and related professions, concepts, roles and responsibilities of the profession, basic facility management functions and techniques, organizational issues (including corporate culture, relationships between facility units and other organizational divisions, facility management and industry structure, etc.) and codes and other regulatory issues. The course is writing intensive.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Facilities Management.
Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Science.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

ARCH 3111. Introduction to Historic Preservation. 3 Credit Hours.
This course introduces students to the scope of architectural conservation, preservation and adaptive reuse, their histories, philosophies and theoretical bases. It introduces techniques for the preservation of buildings, including those for observation, recording and intervention.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

ARCH 3145. Architecture History Non-Western. 3 Credit Hours.
An examination of non-western architecture from its ancient and primitive beginnings to its contemporary expressions, focusing on Africa, the Middle East, the Far East and Southeast Asia, India, and Pre-Colombian America. Special emphasis is placed on the understanding of non-western religions Islam, Hinduism, and Buddhism, and also on Judaism, and on the shaping of appropriate worship places.

Repeatability: This course may not be repeated for additional credits.

ARCH 3146. Engaging Places: Observations. 2 Credit Hours.
This course introduces students to the study of buildings and public places in Philadelphia using a set series of investigative and observation methods.

Repeatability: This course may not be repeated for additional credits.

ARCH 3152. Materials and Methods. 4 Credit Hours.
Introduction to construction materials, fundamentals of building construction, methods of assembling building systems in an integrated manner, and costing. Introduces specific regulatory issues dealing with zoning regulations, building codes, and barrier-free access requirements within the context of contemporary building techniques. Methods of construction in wood, masonry, concrete, and steel are described in detail and issues of enclosure, roofing, insulation, and finishes are presented. The course carries technical drawing requirements.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2151|Minimum Grade of C-|May not be taken concurrently
OR AR51 Y|May not be taken concurrently)
AND (MATH 1031|Minimum Grade of C-|May not be taken concurrently)
AND (PHYS 1021|Minimum Grade of C-|May not be taken concurrently)

ARCH 3174. Site Investigations. 3 Credit Hours.
The course focuses on the discourse on urban form, the environment and design process that has emerged since the middle of the 20th century. It will examine theories and projects that address the integration of architecture, landscape and urbanism, so that students will be better prepared to address complex issues surrounding building sustainable environments. The subject is explored through readings, lectures, and case studies. NOTE: This course is offered to Bachelor of Architecture majors only.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently)
AND (ARCH 2122|Minimum Grade of C-|May not be taken concurrently
OR AR22 Y|May not be taken concurrently)

ARCH 3196. Architecture History Non-Western. 3 Credit Hours.
An examination of non-western architecture from its ancient and primitive beginnings to its contemporary expressions, focusing on Africa, the Middle East, the Far East and Southeast Asia, India, and Pre-Colombian America. Special emphasis is placed on the understanding of non-western religions Islam, Hinduism, and Buddhism, and also on Judaism, and on the shaping of appropriate worship places.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 2141|Minimum Grade of C-|May not be taken concurrently
OR AR41 Y|May not be taken concurrently.

ARCH 3212. Introduction to CAD. 3 Credit Hours.
This lecture and hands-on lab course will introduce students to the implementation of CADD and other integrated software within the field of Architecture.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

ARCH 3231. Architectural Design III. 6 Credit Hours.
Sustainable urban design studio, at a neighborhood scale; development of a variety of techniques to analyze, map, represent and generate urban environments - geographical, economic, social, cultural, formal; development of urban program; collaboration within a group and with aligned fields - real estate, planning, civic, neighborhood etc.; introduction of peer critique and self evaluation.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Architecture, Bach of Sci in Architecture.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2121|Minimum Grade of C-|May not be taken concurrently
OR AR21 Y|May not be taken concurrently)
AND (ARCH 2122|Minimum Grade of C-|May not be taken concurrently
OR AR22 Y|May not be taken concurrently)

ARCH 3232. Architectural Design IV. 6 Credit Hours.
Elective studio: Students will select from a range of the studio topics, with offerings depending on faculty expertise. Topics will be drawn from the following: Innovation, materials and fabrication studio; Interdisciplinary studio; Big and complex building studio; Community design studio; Global urban systems studio. Not all topics will be offered every year.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Architecture, Bach of Sci in Architecture.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 3231|Minimum Grade of C-|May not be taken concurrently.

ARCH 3233. Architecture Design Studio in Tokyo (Undergraduate). 6 Credit Hours.
Complex design investigation incorporating analysis of urban systems, observational research, data collection and analysis and the study of architectural precedent. This course aims to develop understandings of a foreign architectural and urban culture and how to engage it and promotes cosmopolitan values. Scale: variable.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

ARCH 3234. Architectural Design Studio in Rome. 6 Credit Hours.
Architectural design studio at the Rome Campus with noted architectural faculty from Italy. Special application required. Consult Architecture Department office for more information. Course may be used to satisfy one of the upper level studios [Architecture 3231 (0231), 3232 (0232), or 4332 (0332)] but may only be taken once.

Repeatability: This course may not be repeated for additional credits.

ARCH 3241. Seminar Analysis of Urban Structure in Rome. 3 Credit Hours.
Research on urban systems and forms that have marked the development of Italian and Roman architecture from the 15th to the 18th century and that are now a reference point in every Western city: the piazza, the Roman palazzo, the theater, the garden. The course is intended to be a theoretical and analytical complement to the Rome Campus design course.

Repeatability: This course may not be repeated for additional credits.

ARCH 3242. Urban Seminar in Tokyo (Undergraduate). 3 Credit Hours.
This course provides students an overview of architecture and urbanization in historic and contemporary Japan. Economic, socio-political and technological forces that have shaped the built environment and architecture are discussed and the work of contemporary Japanese architects are studied and analyzed. The course is a theoretical and analytical complement to the Architecture Design Studio.

Repeatability: This course may not be repeated for additional credits.

ARCH 3251. Structural Analysis for Architects. 3 Credit Hours.
This course covers loadings determination and evaluation, resolution and equilibrium of force systems, truss analysis, centroids, moments of inertia, shear and bending moment diagrams, basic beam, column, and system design.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(MATH 1031|Minimum Grade of C-|May not be taken concurrently
AND PHYS 1021|Minimum Grade of C-|May not be taken concurrently)

ARCH 3255. The Art of Detailing. 3 Credit Hours.
Exploration of architectural details and their application and evolution in architectural works through a historical perspective. Students research, analyze, describe, and document their findings into a bound volume.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2122|Minimum Grade of C-|May not be taken concurrently
OR AR22 Y|May not be taken concurrently)
AND (ARCH 2151|Minimum Grade of C-|May not be taken concurrently
OR AR51 Y|May not be taken concurrently)

ARCH 3273. Housing and Community Design. 3 Credit Hours.
This course explores the context of housing and the design of communities in the Modern era and uses examples both local and world-wide as case studies.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

ARCH 3296. Movements in Modern Architecture. 3 Credit Hours.
History and theories of the architecture and urbanism of the modern period, from the beginning of the 19th century until the 1960's. Key ideas, texts and iconic buildings from the USA, Europe and other sites of the modernist diaspora are discussed. NOTE: This is a writing-intensive course.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2141|Minimum Grade of C-|May not be taken concurrently
OR AR41 Y|May not be taken concurrently)
AND (ARCH 2142|Minimum Grade of C-|May not be taken concurrently
OR AR42 Y|May not be taken concurrently)

ARCH 3354. Sustainability and Architecture. 3 Credit Hours.
The study of the ecological, environmental, socio-cultural, and behavioral principles of sustainable architecture, including climatic considerations, total energy systems, resource management, energy-efficient technologies, ecological design strategies, as well as issues of social equity and environmental justice.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 2151|Minimum Grade of C-|May not be taken concurrently
OR AR51 Y|May not be taken concurrently)
AND (MATH 1031|Minimum Grade of C-|May not be taken concurrently)
AND (PHYS 1021|Minimum Grade of C-|May not be taken concurrently)

ARCH 3362. Architecture Workshop. 3 Credit Hours.
Preparation for and classroom experience with an interdisciplinary team that introduces an awareness of the principles of architecture and the built environment to young children in city schools. Teams are composed of an architecture student, a practicing architect, and a school teacher; in collaboration with the Foundation for Architecture, the School District of Philadelphia, and the Graduate School of Fine Arts of the University of Pennsylvania, as well as volunteers from architectural firms.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

ARCH 3391. Independent Research. 3 to 7 Credit Hours.
A project assigned with the approval of the Program Director and conducted under the supervision of a faculty sponsor.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

ARCH 3970. Honors Special Topics in Architecture, Site and Context. 3 Credit Hours.
Special topics seminar dealing with issues of site and context in the field of Architecture. Topics vary with year and instructor. Consult Architecture program office and honors course catalog for more information. NOTE: May be taken more than once for credit when each topic is unique.

Cohort Restrictions: Must be enrolled in one of the following Cohorts: SCHONORS, UHONORS, UHONORSTR.

Course Attributes: HO

Repeatability: This course may be repeated for additional credit.

ARCH 4011. Research Methods for Facility Management. 3 Credit Hours.
Research and analytical methods for facility management, including literature searches, data collection, analysis and application, basic descriptive and inferential statistics, benchmarking, audits, post-occupancy evaluation and diagnostic, performance and needs assessment. The course is project based and will engage in working relationships with companies in the Philadelphia region.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Facilities Management.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 3013|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3097|Minimum Grade of C-|May not be taken concurrently)

ARCH 4096. Professional Practice. 3 Credit Hours.
Administrative and business aspects of the architectural profession, professional relations between architect, engineer, owner, and contractor. Legal aspects of modern practice. Marketing architectural services, project organization, and production.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Facilities Management, Architectural Preservation, Historic Preservation.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

ARCH 4099. Capstone Research Seminar for Facility Management. 4 Credit Hours.
The capstone course for all B.S. Facility Management majors that focuses on a self defined individual research topic within the field of facility management based on case study analysis requiring investigative research, problem definition, alternative considerations and solution building. It has a seminar format with discussion and commentary expected from all participants. The course results in the development and presentation of a senior level thesis.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Facilities Management.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:
(ACCT 2101|Minimum Grade of C-|May not be taken concurrently
OR ACCT 2901|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3012|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3013|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3097|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3152|Minimum Grade of C-|May not be taken concurrently
OR AR31 Y|May not be taken concurrently)
AND (ARCH 4011|Minimum Grade of C-|May not be taken concurrently)
AND (RE 3501|Minimum Grade of C-|May not be taken concurrently)

ARCH 4141. Global Preservation Practice. 3 Credit Hours.
This course introduces the agencies, global, national and regional, operating in the fields of architectural conservation, preservation and adaptive reuse. Through global, national and regional case studies, it develops a knowledge base of contemporary practice.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 3111|Minimum Grade of C-|May not be taken concurrently.

ARCH 4145. Research Methods for Historic Preservation. 3 Credit Hours.
The first half of this course introduces students to sources and methods of investigation particular to historic preservation and develops techniques employed in the physical, verbal, and quantitative documentation of structures, buildings, and sites. Students become acquainted with archival resources, methods of graphical recording and annotation, and preparation of narrative and quantitative records. The second half of this course provides an overview of the physical processes that affect the stability of buildings, structures, and sites and the range of available remedial actions.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Architectural Preservation, Historic Preservation.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 3111|Minimum Grade of C-|May not be taken concurrently.

ARCH 4182. Independent Study in History and Theory. 1 to 7 Credit Hour.
Individual study of advanced nature exploring aspects of architectural history and theory, under the guidance of a faculty advisor.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

ARCH 4199. Capstone Research Seminar for Historic Preservation. 4 Credit Hours.
The is the capstone course for all B.S. Architectural Preservation majors that focuses on a self defined individual research topic within the field of architectural preservation or adaptive re-use. Students are required to demonstrate competence through a reality-based case study. The course has a seminar format with discussion and commentary expected from all participants. It results in the development and presentation of a senior level thesis.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

Pre-requisites:
(ARCH 3111|Minimum Grade of C-|May not be taken concurrently
AND ARCH 4141|Minimum Grade of C-|May not be taken concurrently
AND ARCH 4145|Minimum Grade of C-|May not be taken concurrently
AND CHEM 1011|Minimum Grade of C-|May not be taken concurrently)

ARCH 4211. Computer Graphics. 3 Credit Hours.
This course involves lectures and hands-on lab experience in advanced use and applications of computers. The course focuses on graphic programs that allow animation, mapping, visualization, and special rendering techniques. NOTE: Special authorization required for non-majors.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Repeatability: This course may not be repeated for additional credits.

ARCH 4282. Independent Study in Technology. 2 to 7 Credit Hours.
Individual study of advanced nature exploring aspects of architectural history and theory, under the guidance of a faculty advisor.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

ARCH 4296. Design, Behavior and Culture. 3 Credit Hours.
This course aims to develop students' understanding of how users perceive environments and adapt to them, to investigate the potential role of environmental psychology factors in architectural design; and to develop a working methodology for thinking about the environment based on behavioral and social science principles. The course is writing intensive.

Class Restrictions: May not be enrolled in one of the following Classes: Freshman 0 to 29 Credits.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 2141|Minimum Grade of C-|May not be taken concurrently
OR AR41 Y|May not be taken concurrently.

ARCH 4331. Architectural Design V. 6 Credit Hours.
Comprehensive design studio: the integration of structural and environmental systems, programming, tectonics and detailing into architectural design and expression in holistic and environmentally sustainable ways; comprehensive representation of design; development of time management skills, peer critique and self evaluation; interaction with consultants.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Architecture, Bach of Sci in Architecture.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 3231|Minimum Grade of C-|May not be taken concurrently.

ARCH 4332. Architectural Design VI. 6 Credit Hours.
Elective studio: students will select from a range of the studio topics, with offerings depending on faculty expertise. Topics will be drawn from the following: Innovation, materials and fabrication studio; Interdisciplinary studio; Big and complex building studio; Community design studio; Global urban systems studio. Not all topics will be offered every year.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Architecture, Bach of Sci in Architecture.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 3231|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 3232|Minimum Grade of C-|May not be taken concurrently)
AND (ARCH 4331|Minimum Grade of C-|May not be taken concurrently
OR ARCH 3233|Minimum Grade of C-|May not be taken concurrently
OR ARCH 3234|Minimum Grade of C-|May not be taken concurrently)

ARCH 4351. Environmental Control Systems for Buildings. 3 Credit Hours.
Heating, ventilating, air conditioning, electric power, lighting, acoustics, vertical transportation, plumbing, and fire protection for buildings.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
(ARCH 3152|Minimum Grade of C-|May not be taken concurrently
AND PHYS 1021|Minimum Grade of C-|May not be taken concurrently)

ARCH 4382. Independent Study: Site and Context. 3 to 7 Credit Hours.
Individual study of advanced nature exploring aspects of site, context, or urbanism in architecture, under the guidance of a faculty advisor.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

ARCH 4431. Advanced Architectural Design. 6 Credit Hours.
Research-driven upper-level elective design studio to develop capacity for research (archival, social, urban etc.) as basis of design; development of initiative, collaboration and peer critique; development of written and graphic skills. Focus will be defined by the faculty teaching the studio and vary from year to year.

Degree Restrictions: Must be enrolled in one of the following Degrees: Bachelor of Architecture.

Repeatability: This course may not be repeated for additional credits.

ARCH 4482. Independent Study: Behavior & Culture. 3 to 7 Credit Hours.
Individual study of advanced nature exploring aspects of behavior and culture in architecture, under the guidance of a faculty advisor.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Repeatability: This course may be repeated for additional credit.

ARCH 4596. Seminar in Architectural Theory. 3 Credit Hours.
Theories of architecture and urbanism during the modern and contemporary periods; participation in critical theoretical discussions and the development of a research paper in response to critical feedback. The course serves to lay the ground for the theoretical development of thesis ideas.

Field of Study Restrictions: Must be enrolled in one of the following Majors: Architecture, Architecture Undeclared, Facilities Management, Architectural Preservation, Historic Preservation.

Course Attributes: WI

Repeatability: This course may not be repeated for additional credits.

Pre-requisites:
ARCH 3243|Minimum Grade of C-|May not be taken concurrently
OR ARCH 3296|Minimum Grade of C-|May not be taken concurrently.