

# Architecture, M.Arch.

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TYLER SCHOOL OF ART (<http://tyler.temple.edu/#/prospective>)

DIVISION OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

## About the Program

The Master of Architecture (M.Arch.) program is a first professional degree that prepares students for the practice of architecture through a rigorous course of study that engages students with urgent urban, architectural, and environmental issues. The program is structured to enable students to learn theories and methodologies of architectural design as well as to understand the social, economic, political, and technological forces that shape the built environment.

The curriculum is centered on a progressive sequence of design studios, intensive courses that require the synthesis and application of knowledge from other classes. Seminars in research, history/theory, building technology, and professional practice address questions in tandem with design studios. Elective courses allow students to pursue specializations with focus and intent. Together, the architecture courses satisfy professional accreditation requirements. During the final year of study, students may apply to engage in a self-directed research and design inquiry that culminates in a design thesis. The year-long architectural thesis is advanced by the individual student's interests and skills under the guidance of an advisor.

The Architecture Department offers three tracks for the M.Arch.: a 1-year, 2-year, or 3-year program depending on a student's educational background upon entry to the degree:

- The 1-year track is a +1 accelerated undergraduate-graduate program that enables qualified and eligible students to complete the 60-credit M.Arch. degree within a year after graduation with the Bachelor of Science in Architecture pre-professional degree. This accelerated degree program consists of a minimum of 111 credits of undergraduate coursework, and a maximum of 12 credits of graduate coursework to count toward both the undergraduate and graduate degrees. Upon successful completion of the fourth year, students receive a Bachelor of Science in Architecture. At the end of the contiguous fifth year (including two summer terms of graduate coursework), students receive a Master of Architecture degree. To be eligible for the program, students must be declared as an Architecture major; have a minimum of 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 terms (beginning with their first term taking a graduate course as an undergraduate); and be able to complete the graduate degree in one additional year, including the two summer terms of graduate coursework.
- The 2-year track is a 60-credit degree program for students who earn Temple University's Bachelor of Science in Architecture (B.S.Arch.) degree and for students from other four-year pre-professional degree programs with equivalent course content, nationally and internationally.
- The 3-year track provides a curriculum of up to 90 credits for students with a degree in subjects outside of architecture or without a pre-professional degree in architecture. The first year of this program provides a rigorous introduction to architectural design that consists of up to 30 credits of pre-professional studies, including design studios, building technology courses, and history and theory seminars. Each student is individually evaluated and placed into courses. The number of credits students will need to take within the first year varies depending on the amount of pre-professional architectural course content that has been previously satisfied by the candidate. Students who have little or no architectural content at the undergraduate level will be required to take the full 30 credits of pre-professional studies in architecture. Students who have degrees in architectural studies may receive advanced standing within the 3-year track.

**Time Limit for Degree Completion:** 5 years

**Campus Location:** Main

**Full-Time/Part-Time Status:** The curriculum is designed for a full-time load of 15 credits per term. Students are, however, able to complete the degree program on a part-time basis.

**Study Abroad:** M.Arch. students in the Professional Track may choose to study at the TU Rome or TU Japan campuses in the Spring terms.

**Accreditation:** The M.Arch. degree program is accredited by the National Architectural Accrediting Board (NAAB), which requires publication of the following statement:

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards. Doctor of Architecture and Master of Architecture degree programs may require a pre-professional undergraduate degree in architecture for admission. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Temple University Architecture Department offers the following NAAB-accredited degree programs:

- M.Arch. (B.S.Arch. pre-professional degree + 60 graduate credits)

- M.Arch. (baccalaureate degree + up to 90 graduate credits)

The next accreditation visit for all programs is 2022.

**Job Prospects:** The Master of Architecture is an accredited professional degree program that prepares students for a career as a professional architect. Because this is an urban program located centrally in Philadelphia, engagement with the local professional community is a primary characteristic of the program. During their time in the program, students are provided with many opportunities to engage with members of the profession through design critiques and mentorship initiatives.

**Licensure:** In the United States, most state architecture registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The M.Arch. degree is accredited by the National Architectural Accrediting Board (NAAB) and, as such, meets the educational requirements for architectural registration. All students in the Architecture Department are eligible to enroll in the Architectural Experience Program (AXP), a key step toward licensure in most states within the United States, offered by the National Council of Architectural Registration Boards (NCARB).

**Non-Matriculated Student Policy:** Non-matriculated students must contact the Architecture Department for information. A maximum of 9 graduate credits can be taken at Temple University prior to applying to the program.

**Financing Opportunities:** The Architecture Department has a limited number of scholarships for graduate students. Students should also check the Tyler School of Art (<http://tyler.temple.edu/#/prospective>) and Student Financial Services (<http://sfs.temple.edu>) websites for financial aid opportunities. Students should complete a FAFSA (<http://www.fafsa.ed.gov>) application to determine eligibility for student financial aid, work study employment within the Architecture Department, or other eligible on-campus jobs.

## Admission Requirements and Deadlines

### Application Deadline:

*Fall:* January 15

*Spring:* November 1

Applications are reviewed as they are received after the deadline. Students are normally admitted in the Fall term. In the instance when students are admitted in the Spring, they may have limited course offerings in the first term because course sequencing begins in the Fall. See the Tyler School of Art website for the most up-to-date application information.

*APPLY ONLINE to this graduate program.*

### Letters of Reference:

*Number Required:* 3

*From Whom:* Letters of recommendation should be obtained from college/university faculty members and/or professionals in the field who are familiar with the applicant's academic and professional competence. The letters should be submitted via SlideRoom at <https://temple.slideroom.com> along with the statement of goals, resume, and portfolio.

### Coursework Required for Admission Consideration:

The M.Arch. program has three tracks:

1. a +1 accelerated track,
2. a two-year 60-credit track, and
3. a three-year track, up to 90 credits.

The +1 accelerated track is open to qualified students in the Temple B.S.Arch. program. Admission into the two-year track is open only to students who have completed a pre-professional degree in Architecture, i.e., either the Temple B.S. in Architecture program or a program with course content equivalent to the current Temple University B.S. in Architecture. Admission into the three-year track is open to any student who has completed a bachelor's degree.

All applicants apply directly to the M.Arch. program, not to a specific curricular track. Admitted students are placed in the appropriate track based on a thorough review of all application materials.

**Bachelor's Degree in Discipline/Related Discipline:** A pre-professional baccalaureate degree in Architecture (or equivalent) is required for the two-year Professional Track. A baccalaureate degree in any discipline is required for the three-year Intensive Design Track. Official transcripts from all universities/colleges attended, whether or not a degree was awarded, must be sent to:

Tyler School of Art  
Graduate Admissions Office  
2001 N. 13th Street

Philadelphia, PA 19122-6016

**Statement of Goals:** Approximately 500 to 1,000 words include your reason for pursuing a degree in Architecture; your interest in Temple's program in particular; and your aspirations and future career goals.

**Standardized Test Scores:**

GRE: Required. Average scores are typically in the 50-65% range, particularly on the verbal section.

TOEFL: 79 iBT or 550 PBT minimum

IELTS: 6.5 minimum

**Resume:** Current resume required.

**Portfolio:** All applicants must submit a portfolio of their most important and representative design, creative, and written work. Portfolios from students with prior academic experience in Architecture should include architectural design work done in academic settings. Portfolios may also include work in the visual arts or in visual communication. In addition, work completed in practice may be included but should clearly articulate the applicant's role in the project. Papers, research, or other materials (preferably dealing with the built environment) are invited as evidence of scholarly, academic, or creative work. Work chosen for inclusion in a portfolio should best represent the applicant's knowledge, aptitudes, interests, creative ability, and experience relative to the discipline of Architecture. The portfolio should include approximately 20 images or other items.

Portfolios are to be uploaded at <https://temple.slideroom.com>, as instructed on the website. SlideRoom requires an additional fee for this service. Original work, slides, CD-ROMs, catalogs, photographs, books, and/or binders are not acceptable substitutes for the SlideRoom portfolio and will not be reviewed or returned.

**Transfer Credit:** The Architecture Admissions Committee recommends the awarding of graduate transfer credits on a case-by-case basis as applications are reviewed. The student may not receive graduate transfer credit for coursework taken as part of any other awarded graduate degree. The maximum number of graduate transfer credits a student may receive is 9.

## Program Requirements

**General Program Requirements:**

*Number of Credits Required:* 60 for the Professional Track; up to 90 for the Intensive Design Track.

*Required Courses:*

### Professional Track

Year 1		
Fall		Credit Hours
ARCH 5252	Str Des for Architects 1	3
ARCH 5351	Env Control Systems 1	3
ARCH 8011	Adv Arch Des Studio 1	6
ARCH 8133	Arch Research Seminar 3	3
Term Credit Hours		15
Spring		
ARCH 5253	Str Des for Architects 2 <sup>1</sup>	3
ARCH 8012	Elect Arch Des Studio <sup>1</sup>	6
ARCH 8132	Arch Research Seminar 2 <sup>1</sup>	3
Free Elective		3
Term Credit Hours		15
Year 2		
Fall		Credit Hours
ARCH 8013	Comp Arch Design Studio	6
ARCH 8131	Arch Research Seminar 1	3
ARCH 8352	Env Control Systems 2	3
ARCH 9991	Directed Research (OR ARCH Elective)	3
Term Credit Hours		15
Spring		
ARCH 8012 or 9996	Elect Arch Des Studio <sup>1</sup>	6
ARCH 8096	Professional Practice <sup>1</sup>	3

ARCH Elective <sup>1</sup>	3
Free Elective <sup>1</sup>	3
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Term Credit Hours	15
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Total Credit Hours:	60

<sup>1</sup> ROME or TOKYO OPTION: M.Arch. students in the Professional Track can choose to study abroad at the Temple Rome or Temple Japan campuses in the Spring terms. Studio course credits count toward ARCH 8012. Architecture seminar course credits count toward Architecture elective requirements, and other coursework counts toward free elective credits in the program.

## Intensive Design Track

Up to 30 credits are taken in Year 1, with the actual number varying according to the amount of architecture pre-professional course content previously satisfied by the student. Students are required to keep a portfolio of coursework taken in Year 1 of the Intensive Design Track. Upon successful completion of Year 1, students undergo a portfolio review prior to entering the 2-year Professional Track. Courses for the Intensive Design Track include:

### Core Courses

ARCH 5011	Graduate Representation Intensive 1	3
ARCH 5012	Graduate Representation Intensive 2	3
ARCH 5122	Graduate Design Foundation Intensive <sup>1</sup>	6
ARCH 5231	Graduate Design Studio 1	6
ARCH 5232	Graduate Design Studio 2	6

### Building Technology (up to 6 credits)

ARCH 5152	Materials and Methods of Construction	3
ARCH 5251	Structural Analysis for Architects	3

### History and Theory (up to 12 credits)<sup>2</sup>

ARCH 5141	Architectural History 1: Ancient through Renaissance	3
ARCH 5142	Architectural History 2: Renaissance through 20th Century	3
ARCH 5296	Movements in Modern Architecture	3
ARCH 5596	Seminar in Architectural Theory	3

Total Credit Hours	42
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<sup>1</sup> Required of students who took fewer than 8 credits of foundation or architectural design studios as undergraduates.

<sup>2</sup> Includes 6 credits of which may be taken in Years 2 and 3 as architecture electives.

### Culminating Events:

#### *Design Studio Project:*

In the Intensive Design Track, students are required to take up to 18 credits of design studio and 6 credits of representation courses. Placement is assessed at the time of application and is based on the student's portfolio and transcript.

In the Professional Track, students are required to complete four design studios or three design studios and a thesis.

#### *Design Thesis:*

Students can undertake an independent design thesis. This option is a two-term, two-course sequence: ARCH 9991 in the Fall, and ARCH 9996 in the Spring. The result is a pre-design position paper and design project analysis, culminating in a design thesis project presentation and written/graphic documentation of the work.

## Contacts

### Program Web Address:

<http://tyler.temple.edu/programs/architecture>

### Department Information:

Tyler School of Art  
 Graduate Admissions Office  
 2001 N. 13th Street  
 Philadelphia, PA 19122-6016  
 tylerart@temple.edu  
 215-777-9090

## Submission Address for Application Materials:

<https://temple.slideroom.com/>

## Mailing Address for Official Transcripts:

Tyler School of Art  
Graduate Admissions Office  
2001 N. 13th Street  
Philadelphia, PA 19122-6016

## Department Contacts:

*M.Arch. Program Head:*  
Sally Harrison  
134 Architecture Building  
sharriso@temple.edu  
215-204-8813

*Department Chairperson:*  
Rashida Ng  
rashida.ng@temple.edu  
215-204-3816

## Courses

### **ARCH 5011. Graduate Representation Intensive 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

### **ARCH 5012. Graduate Representation Intensive 2. 3 Credit Hours.**

This course focuses 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 2D and 3D analog and digital representation will be addressed. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

### **ARCH 5122. Graduate Design Foundation Intensive. 6 Credit Hours.**

Students in this course will develop rigorous design thinking through making and the integration of material, craft, tectonic and visual practice. Development of the design crit plus methods of communicating design objectives. Scale: artifact, body and spatial envelope. Development of individual portfolio of design and graphic work as required for the M Arch degree.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5141. Architectural History 1: 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5142. Architectural History 2: 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5152. Materials and Methods of Construction. 3 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5231. Graduate Design Studio 1. 6 Credit Hours.**

The house as essential site of architecture. Consideration of relationships between program, culture, society and form making at a domestic scale; consideration of structure, space, shelter and place making; methods of construction, tectonics and detailing as design concerns; introduction to precedent study as research technique. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**Pre-requisites:**

ARCH 5122|Minimum Grade of B-|May not be taken concurrently.

**ARCH 5232. Graduate Design Studio 2. 6 Credit Hours.**

Studio with environmental sustainability focus - 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**Pre-requisites:**

(ARCH 5122|Minimum Grade of B-|May not be taken concurrently  
AND ARCH 5231|Minimum Grade of B-|May not be taken concurrently)

**ARCH 5251. 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5252. Str Des for Architects 1. 3 Credit Hours.**

Application of principles of engineering mechanics to layout, analysis, design, and detailing of structural elements in steel and wood of simple buildings. Flexural theory including elastic and plastic design is taught. Students will be familiarized with current building design codes as they relate to the structural design of building elements.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5253. Str Des for Architects 2. 3 Credit Hours.**

Application of principles of engineering mechanics to layout, analysis, design, and detailing of structural elements in concrete and masonry of simple buildings. Students will be familiarized with current building design codes as they relate to the structural design of building elements.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5296. 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5351. Env Control Systems 1. 3 Credit Hours.**

This course discusses the thermal and environmental processes that affect buildings and develops techniques for designers to respond to and manipulate thermal environments in ways that are integral with other building systems. Mechanical, electrical, and plumbing systems, heating, ventilation, and air-conditioning (HVAC) equipment, vertical transportation, communication, security, and fire protection systems and introduced. These are discussed against a backdrop of the principles of sustainability and environmental responsibility.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 5596. 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. Development of individual portfolio of design work, a requirement for graduate students in architecture.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8000. Spec Top Sem in Practice. 3 Credit Hours.**

Graduate level seminar to familiarize and engage students in issues of Integrated Practice. The course centers on a discussion of major impacts of practice, and the ethical issues and responsibilities that we are faced with in the current era where BIM has the potential to change the roles in built environment disciplines, and impacts of globalization and sustainability drive our needs. The course addresses changes brought on in technology and practice management. Discussion and research can span a range of issues that affect practice.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8011. Adv Arch Des Studio 1. 6 Credit Hours.**

Design studio to familiarize students with current urban design strategies and their historical precedents. Students will engage in generative analysis of urban systems, economies, structures, infrastructures, spaces and / or cultures, involving observation and data collection, visualization, program development and its spatio / temporal resolution and visualization. The studio may involve collaboration with aligned fields or disciplines e.g. landscape architecture, media studies, geography and urban studies, community and regional planning and / or outside agencies or groups. Peer critique and evaluation are utilized as learning techniques.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8012. Elect Arch Des Studio. 6 Credit Hours.**

Advanced architectural design studio. The topic of the studio varies in accordance with faculty expertise and research focus. This might include, but not be limited to an area of architectural, spatial, social, cultural or political practice, an interdisciplinary intersection such as architecture + biology / geology / war / the media / gender or business; research into materials, energy, structure, scripting, fabrication or other computational technologies. The course develops observational techniques and data collection, management and visualization appropriate to the topic of the studio. It requires spatio / temporal / material development, resolution and representation of an architectural design strategy at appropriate scales. Collaboration with aligned fields or disciplines may be undertaken if it is appropriate to the topic of the studio. Peer critique and evaluation are utilized as learning techniques and the capacity for independent work is developed. The course must be taken once, but may be taken up to three times for required credits as long as the topic covered is substantially different each time.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.



**ARCH 8013. Comp Arch Design Studio. 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.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8096. Professional Practice. 3 Credit Hours.**

The course is required for internship in the architectural profession. It exposes students to the history, development and current status of the architectural profession and professional education and develops understandings of the trends and dynamics of contemporary architectural practice. It discusses what is required to properly serve clients and the common good; how to pursue, win, negotiate and prepare agreements and contracts; how to organize, manage, design, control costs, produce and administer contracts for the construction of architectural projects and how to organize, build and maintain architectural firms.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8100. Spec Top Case St in Arch. 3 Credit Hours.**

Graduate level seminar that centers on comprehensive case studies in architecture as a form of primary research. The seminar discussion and research will focus on architectural works with the aim of learning about important aspects and overlaps that make architecture. In each case, the topics that drive the research and analysis will vary. Topics and issues will be guided by class discussion and the nature, scale and context of the architectural works. The course will address methods of analysis and techniques for visualization and presentation. It requires active participation in class discussions.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8131. Arch Research Seminar 1. 3 Credit Hours.**

Graduate level research seminar to familiarize and engage students in an area of contemporary urban research, its history, networks, strategies and techniques. It will develop methods and skills for the research and analysis of urban systems, economies, structures, infrastructures, spaces and / or cultures and techniques to visualize data and present research findings. The topic of the seminar varies in accordance with faculty expertise and research focus and might include, but not be limited to, approaches to sustainable urban development, ludic urban design strategies, advocacy based urbanism, user generated cities, computational urbanism, etc. The course takes a seminar format and requires active participation in class discussions. The course is required to be taken once in conjunction with ARCH 8011, but may be taken again for elective credit provided that the topic covered is different each time.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8132. Arch Research Seminar 2. 3 Credit Hours.**

Graduate level seminar to familiarize and engage students in an area of contemporary architectural research, its history, networks, strategies, techniques. The topic of the seminar varies in accordance with faculty expertise and research focus. This might include, though not be limited to, questions about research as architectural practice, about architectural design as research, about architectural history, about architecture as spatial or political practice, or engage in any one of the interdisciplinary intersections currently re-energizing architecture - architecture + biology / war / media studies / post-colonial studies / gender studies / business etc. The course will develop methods and skills for architectural research and analysis and techniques for data visualization and research presentation. The course takes a seminar format and requires active participation in class discussions. The course is required to be taken once, but may be taken again for elective credit provided that the topic covered is different each time

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8133. Arch Research Seminar 3. 3 Credit Hours.**

Graduate level seminar to familiarize and engage students in contemporary research in an area of architectural technology, its history, networks, strategies and techniques. The topic of the seminar varies in accordance with faculty expertise and research focus. This might include, though not be limited to materials research, energy research, structural research, fabrication, computational technologies, etc. The course will examine the history of the field, develop methods and skills for research and analysis and techniques for data visualization and research presentation. The course takes a seminar format and requires active participation in class discussions. The course is required to be taken once, but may be taken again for elective credit provided that the topic covered is different each time.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8146. Graduate Field Work Report. 1 Credit Hour.**

This course requires that students prepare an independent report of their study abroad, field work, or internship experience in a format that is agreed upon with the course coordinator.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 8233. Arch Des St Tokyo (G). 6 Credit Hours.**

A complex design investigation incorporating analysis of urban systems, observational research, data collection and analysis and the study of architectural precedents. The course immerses students in a foreign urban and architectural culture and asks them to engage in a complex design investigation, whose topic and scale is variable. Course may be used as equivalent of ARCH 8012 but may only be taken once.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8234. Arch Des Studio Rome (G). 6 Credit Hours.**

A complex design investigation incorporating analysis of urban systems, observational research, data collection and analysis and the study of architectural precedents. The course immerses students in a heritage urban and architectural locale and asks them to engage in a complex design investigation, whose topic and scale is variable. Course may be used as equivalent of ARCH 8012 but may only be taken once.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8241. Seminar: Analysis Urb Str (G). 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 theatre, the garden. The course is intended as a theoretical and analytical complement to the graduate architecture design studio in Rome. It fulfils the requirements of ARCH 8132.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8242. Urban Seminar Tokyo (G). 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. It fulfils the requirements of ARCH 8132.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 8352. Env Control Systems 2. 3 Credit Hours.**

This course covers visual and audio environmental stimuli and architectural design responses to them. In addition, it discusses and introduces techniques for measuring the design of building systems for improved environmental performance, in terms of the efficiency of systems, environmental impact and capital and operational costs.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

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

**ARCH 9182. Independent Study in Architecture. 1 to 3 Credit Hour.**

Graduate level independent study carried out by students interested in research that focuses on the various subdisciplines in architecture. Students must submit a proposal to a faculty member for review and approval that follows departmental guidelines for independent study. Topics and issues that guide the independent study can vary.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9280. Special Topics in Communication. 1 to 3 Credit Hour.**

Graduate level course that addresses current topics in graphic and visual communication in architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9285. Architecture Internship. 1 to 3 Credit Hour.**

This course expands students' knowledge and professional experience through internships in architectural and other built environment firms. Students will be exposed to methods of practice and design thinking. The course requires that the student prepare a report in a format agreed upon with the course coordinator.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9380. Special Topics in History or Culture. 1 to 3 Credit Hour.**

Graduate level course that addresses current topics related to architectural history and/or cultural studies.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9480. Special Topics in Technology. 1 to 3 Credit Hour.**

Graduate level course that addresses current topics in digital or building technology in architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9580. Special Topics in Site and Context. 1 to 3 Credit Hour.**

Graduate level course that addresses current topics in site and context in architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9682. Independent Research. 1 to 3 Credit Hour.**

Graduate level independent research in architecture. Students work with a faculty member according to an agreed upon syllabus and schedule. Topics and issues that guide the course work will vary.

**Department Restrictions:** Must be enrolled in one of the following Departments: Tyler:Architecture.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9991. Directed Research. 3 Credit Hours.**

The development of a self motivated architectural design inquiry under the guidance of a faculty co-coordinator. This includes design research, the development of a design program, site investigation, analytical and speculative design investigations and / or experimentation with advanced visualization techniques. The course is seminar based and engages students in critical dialogue with their own and other students' work. It prepares students for undertaking an architectural design thesis the following semester.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.

**ARCH 9996. Arch Design Thesis. 6 Credit Hours.**

Self directed architectural design thesis that follows on the research and design inquiries conducted in the fall semester. The course requires that students demonstrate the ability to undertake design research, develop a design program, conduct analytical and speculative design investigations and utilize advanced visualization techniques in the representation of their work. It culminates in a formal juried presentation and a textual document of a publishable standard of a graduate level design thesis.

**Level Registration Restrictions:** Must be enrolled in one of the following Levels: Graduate.

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

**Repeatability:** This course may be repeated for additional credit.