SCHOOL OF ARCHITECTURE

The School of Architecture, founded in 1909, offers professional degree programs in both architecture and architectural engineering. The integration of these programs through shared faculty, facilities and coursework is a major strength of the School. It is one of few such integrated programs in the United States, and as such produces graduates who are particularly prepared for the interdisciplinary nature of professional practice. The School of Architecture is a primary unit in the College of Engineering, Architecture and Technology, and therefore benefits from excellent state-of-the-art resources which significantly enhance the student experience.

Oklahoma State University graduates are recruited by the leading architectural and architectural engineering firms across the United States and beyond. School of Architecture graduates are routinely accepted into premier graduate schools in architecture and related fields. The Oklahoma State University School of Architecture is particularly proud of having among its alumni many of the leaders of the best firms in the country, an AIA Gold Medalist (the highest award given to an architect), and presidents of the American Institute of Architects (AIA), the National Architectural Accreditation Board (NAAB), and the National Council of Structural Engineering Associations (NCSEA).

Mission and Goals

Architecture is the creative blend of the art and science of designing a setting for human life. It is unique among today’s professions in that its successful practice requires a blend of traits normally often considered less than compatible: human empathy, artistic creativity, technological competence, and organizational acumen and economic awareness. In contrast to other fine arts, architecture is rarely self-generated; it is rather a creative response to a stated or perceived human need. It must, therefore, be more user-oriented than fine art alone and more humane than pure science. Its design solutions are simultaneously subjective and objective, while striving to be functionally, technically and economically sound. Yet, in a seemingly insoluble contradiction, the keenest technological and economic functionality will fall far short of becoming architecture unless it also strongly appeals to spiritual and emotional values. When one thinks of the environment, one cannot help but see or recall architectural images: pyramids in Egypt, Greek and Roman temples, gothic cathedrals, medieval castles, industrial cities, modern skyscrapers and dwellings or entire cities which significantly express the culture and values of the people who live or lived there.

The mission of the School of Architecture is to cultivate a collaborative learning community focused upon critical thinking and ethical responsibility. To do so, the faculty embrace established fundamentals and encourage the exploration of emerging innovations in design. The vision of the school is to empower students to make creative contributions in the cause of architecture.

The School of Architecture endeavors to instill in each individual a sensitivity to human needs, a genuine concern for quality, integrity and high ideals, a positive attitude for life-long learning, and personal confidence in one’s ability to make positive contributions to society.

The School’s primary goal is to provide excellence in professional educational for students preparing to enter the private practice of architecture or architectural engineering, or affiliated disciplines. The School is proud to educate students that will become licensed professionals in their field and assume positions of leadership within the profession and society.

Accreditation

The School of Architecture offers two separately accredited professional degree programs. The Bachelor of Architecture degree, BArch, is accredited by the NAAB. The Bachelor of Architectural Engineering degree, BArchE, is accredited by the Accreditation Board for Engineering and Technology (ABET http://www.abet.org/) as an engineering program. Both programs require approximately five years of study to complete. 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) is the sole agency authorized to accredit U.S. professional degree programs in architecture offered by institutions with U.S. regional accreditation. NAAB 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. The Oklahoma State University School of Architecture offers the following NAAB-accredited degree programs - BArch. (154 undergraduate credits).

The next NAAB accreditation visit will occur in 2025.

The next ABET accreditation visit will occur in 2021.

Architecture

Architecture is the complex synthesis of creatively solving problems involving both art and science through the disciplined orchestration of image-making, activity organization, technological applications, legal constraints and budgetary parameters which together express culture, enhance quality of life and contribute to the environment.

Education in architecture consists of on-campus classroom and studio courses, where the focus is on observation and experimentation, and hands-on learning. The intellectual climate stimulates inquiry, introduces principles and values, and teaches the discipline necessary to work in collaboration with others. The goal of the program is to educate future leaders within the architecture profession.

In the pre-professional portion of the architectural program (approximately two years of study), the focus is on the fundamental principles of design and technology supplemented by appropriate general education courses in English, social sciences, natural sciences, math and humanities. These courses allow students to assimilate a beginning knowledge base in architecture along with a broader liberal-based component to their education.

Students who demonstrate proficiency in this portion of the program by meeting a specific set of admission criteria are eligible for admission to the professional program in architecture.

The professional program in architecture (typically three years) builds on the knowledge acquired in the pre-professional curriculum. Students expand their design and problem-solving abilities through a sequential series of design studios informed by courses dealing with structure, systems and materials, building technology, the history and theory of architecture, and business and project management.
principles. In addition students fully utilize the computer as a design and communication tool in the problem-solving process.

The design studio is the center of the School’s educational program. It is the setting where students and faculty work most closely together, and where all specialized study and knowledge comes together as a synthesized study in design. The record of OSU students’ achievements in the design studios is evidenced by the success in national and international architectural design competitions.

**Architectural Engineering**

Architectural engineering is a profession that combines the art and science known as architecture with a detailed knowledge of fundamental and applied engineering principles. In its broadest sense, it involves the creative application of science and technology to the design of structures meant for human occupancy. Architectural engineering differs from architecture in its focus upon the design of elements, systems and procedures for buildings, rather than the design of buildings themselves. Architectural engineers practice in a wide variety of professional engineering settings such as consulting firms, architectural firms, industrial or commercial organizations and governmental agencies.

The objective of the Bachelor of Architectural Engineering program is to provide a professional education to engineering students in building-related systems. OSU graduates possess broad-based knowledge, skills and judgment that prepare them to succeed in the profession of architectural engineering or in further studies at the graduate level. The program is designed to prepare students to contribute to society as professional engineers dealing with analysis, design and related activities within the construction industry. The program utilizes the broad resources of the University and a close relationship with the architectural program to provide in-depth understanding of professional engineering and sensitivity to other qualitative concerns related to the building environment faced by architectural engineers.

The primary focus of the architectural engineering program at OSU is the safe and economical design of technical systems used in buildings. Structural systems must withstand the various forces of nature such as gravity, winds and earthquakes while also accommodating users. These systems require a working knowledge of the mechanics of materials commonly used for building structures such as steel, timber and reinforced concrete. Within the major of Architectural Engineering, the School offers the option in Structural Engineering, and an option in Construction Project Management.

In the pre-professional portion of the architectural engineering program (approximately two years of study), the focus is on the underlying scientific and mathematical principles of engineering and basic design principles supplemented by appropriate general education courses in English, social sciences, natural sciences, math and humanities. These courses allow students to assimilate a beginning knowledge base in architecture and engineering along with a broader liberal-based component to their education. Students who demonstrate proficiency in this portion of the program by meeting a specific set of admission criteria are eligible for admission to the professional program in architectural engineering.

The professional program in architectural engineering (typically two to three years) builds on the scientific and architectural knowledge acquired in the pre-professional curriculum. Students acquire detailed technical engineering knowledge and problem-solving abilities through a series of progressively more detailed and comprehensive courses and studios.

Each architectural engineering course builds upon the preceding architectural engineering courses to develop in the student the ability to identify and solve meaningful architectural engineering problems. The coursework is specifically sequenced and interrelated to provide design experience at each level, leading to progressively more complex, open-ended problems. This coursework includes sensitizing students to socially-related technical problems and their responsibilities as engineering professionals to behave ethically and protect public safety. The program culminates in a capstone design course in which the students integrate analysis, synthesis and other abilities they have developed throughout the earlier portions of their study.

An integral part of this educational continuum from basic knowledge through comprehensive architectural engineering design are learning experiences that facilitate the students’ abilities to function effectively in both individual and team environments. Students are exposed to a wide variety of problems dealing with contemporary issues in many contexts. Moreover, the program provides every graduate with learning experiences to develop effective written and oral communication skills. State-of-the-art computational tools are introduced and used as a part of the students’ problem-solving process. Finally, the students’ experience in solving ever-more-challenging problems provides them the ability to continue to learn independently throughout their professional careers.

The Architectural Engineering Program Educational Objectives expected of program graduates a few years after graduation are as follows. Graduates will:

- Be successful in pursuing a graduate degree if they choose to continue their education past a Bachelor’s degree.
- Utilize their education in architectural engineering to contribute to society as licensed professional engineers;
- Excel in their careers, displaying leadership, initiative, and ethical character, technical ability, and engineering skills;
- Utilize the close relationship with the architecture program to develop a special ability to collaborate on interdisciplinary design teams
- Maintain membership in professional organizations, have an awareness of emerging technologies in the field, and have a positive attitude toward advancing their professional skills through life-long learning.

The architectural engineering program has adopted the following student outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The program outcomes were adopted with the concept that they would provide students with the educational experience necessary to successfully achieve the longer-term program educational objectives.

**Undergraduate Curriculum**

The programs in architecture and architectural engineering are approximately five years long and offer the professional degrees of Bachelor of Architecture and Bachelor of Architectural Engineering.

Professional and liberal study electives provide extensive opportunities for educational breadth and depth. Minor plans of study are also available from the School of Architecture; the Architectural History/Theory minor (ASHT), the Architecture and Entrepreneurship minor (ASAE). A twelve-credit hour Graduate Certificate focused upon the Integrative Design of the Building Envelope is also available.

**Undergraduate Admission**

Students who satisfy the University admission requirements and CEAT Admissions standards are eligible to enroll for the first two years of the program (pre-Professional School). Upon completion of these two years, the most qualified students are selected, upon application, by the School for admission to the upper division (Professional School). Admission is based upon academic achievement and professional potential. Admission criteria are subject to annual review by the School and may be obtained directly from the School.

Transfer students are required to furnish transcripts and course descriptions for previous classroom courses, as well as a portfolio with examples of previous studio work. Evaluation and enrollment by the School is on a course-by-course basis for all transfer students.

**General Education**

All students of OSU are required to complete 40 hours of general education coursework. English composition, American History, Political Science, Social Sciences, Basic Science and Mathematics are part of the General Education requirements. Some required coursework in History and Theory of Architecture can be used for General Education (H) credit.

**Electives**

Electives should be selected to comply with the appropriate undergraduate degree requirements for the program. (See 3.2 “Changes in Degree Requirements” in the “University Academic Regulations” section of the Catalog.) These requirements assure compliance with institutional and accreditation criteria.

**Study Abroad**

The School of Architecture is committed to preparing its graduates for the professional opportunities presented by the expanding global economy. As part of this preparation, the School requires all architecture students to participate in one of its summer study-abroad courses of at least four weeks in length. Students study, in an organized and disciplined fashion, major examples of modern and historic architecture, including urban issues in a range of places outside the United States.

Analytic and artistic sketching skills, descriptive writing, and other forms of observational research and record keeping are important in these courses of study.

Alternatively, a student of Architecture may elect to spend a semester abroad, which would meet the conditions of the degree plan as well. At least a year before a student plans to study a semester abroad, foreign university program and coursework must be coordinated with the School of Architecture advisor and the OSU Study Abroad Office to ensure that courses taken abroad meet the requirements of the degree plan.

Experience has shown that participation in a study-abroad program significantly increases a student’s level of maturity, independent thinking, and cultural and social awareness of others. Knowing the values and accomplishments of other cultures also makes a student a better and more responsible citizen of his or her own country.

**Faculty and Facilities**

School of Architecture faculty have extensive academic and professional experience as successful practicing architects and architectural engineers. The faculty is diverse: one third are women, and one quarter are culturally diverse.

The school moved into the Donald W. Reynolds School of Architecture Building, a newly renovated facility in 2009, which provides spacious design studios, a large expanded architectural library, a day-lighting lab, workshops, classroom facilities and many other amenities. The Donald W. Reynolds School of Architecture Building received an AIA Oklahoma Honor Award recognizing it for outstanding design in 2011.

**Computers**

All School of Architecture students enrolled in either the architecture or architectural engineering programs are required to purchase a laptop computer as they enter the design studio sequence. Updated specifications for the computer and software are provided each year, and posted to the School’s website.

**Student Work**

Projects submitted for regular class assignments may be retained by the School for archival and accreditation purposes. All work not retained for this purpose will be returned to the student.

**Student Body**

Annual student enrollment is approximately 300 students.

**Academic Advising**

Students admitted to CEAT and who wish to study in the School of Architecture are advised by the Architecture Academic Advisor. The College’s Office of Student Academic Services also has the capability to provide advisement for all entering freshmen pre-professional architecture and architectural engineering students.

Each student is personally advised in the planning and scheduling of his or her coursework and is counseled and advised individually on matters of career choice, his or her activities at OSU, and on other academic matters. A digital academic file is created for each student at the time of initial enrollment.
Admission to Professional School

Students applying for admission to the Professional School must first meet the required criteria established for each program. Applicants will be selected based upon their performance in the First and Second Year Architecture and Architectural Engineering curricula. Particular courses in the curricula, which have proven to be good indicators of success in the two programs, will be factored with a multiplier to increase their influence in the selection procedure. To be considered for either program, applicants must:

1. Complete a minimum of 55 credit hours of coursework (applicable to the degree plan) prior to admission to professional school.
2. Complete the following required first- and second-year courses with a grade of 'C' or better:
   - For the Architecture program:
     1. Achieve a grade of "C" or better in all required ARCH prefix courses, substitutes for ARCH prefix courses, and prerequisites for ARCH prefix courses.
   - For the Architectural Engineering program:
     1. Achieve a grade of "C" or better in all required ARCH prefix courses, substitutes for ARCH prefix courses, and prerequisites for ARCH prefix courses.

The Selection Grade Point Average (SGPA) will be calculated for each applicant by multiplying course credit hours by the multiplier, multiplying by the numerical course grade and dividing by the total factored hours. For consideration of admission to the Architecture program, several of the listed courses will have multipliers applied in the calculation of the Selection GPA. See the School of Architecture website for the Professional School Admissions Policy and the SGPA worksheet.

Double Degree

Applicants wishing to enter into the Professional School in both the BArch and BArchE degree programs must apply for both programs and be accepted to each, independent of the other.

Declaration and/or Change of Program

When students apply to Professional School, they must indicate whether they are applying for the architecture program or the architectural engineering program. Further, architectural engineering applicants must indicate which degree option they wish to pursue. If changing programs, Architecture to Architectural Engineering or vice versa, a formal application and admission to the other program through the Professional School application and admission process is required.

Taking ARCH Prefix Courses When Not Admitted to Professional School

Students not admitted to Professional Schools may not enroll in any 3000-level or higher without prior permission of the instructor and Academic Advisor.

Transfer Students

Students wishing to transfer into Professional School of the OSU School of Architecture must apply for admission to the Professional School in the same manner as OSU students.