

# REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN ENVIRONMENTAL DESIGN

## COLLEGE OF ARCHITECTURE

### THE UNIVERSITY OF OKLAHOMA

For Students Entering the Oklahoma State System for Higher Education  
**Summer 2013 through Spring 2014**

Credit Hours and Grade Average Requirements	
Total Credit Hours . . . . .	129
Minimum Upper-Division Hours Required . . . . .	48
<b>Minimum Retention/Graduation Grade Point Averages:</b>	
Minimum OU Retention GPA . . . . .	2.50
Minimum Combined Retention GPA . . . . .	2.50
Minimum GPA on all Required Professional Courses . . . . .	2.50

Pre-Architecture  
(Four-Year Program)  
**B386**  
Bachelor of Science in Environmental Design

**OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in four years.**  
**A minimum grade of C is required in all major coursework. Completion of a university-approved minor or Division approved concentration is also required.**  
**All first year courses are to be completed before advancing to the second year unless otherwise approved by the Architecture Division Director.**

Year	FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
<b>FIRST YEAR</b>	ENGL 1113, Principles of English Composition (Core I)	3	ENGL 1213, Principles of English Composition (Core I), <b>or</b>	3
	♦MATH 1823, Calculus & Analytic Geometry I (Core I)	3	EXPO 1213, Expository Writing (Core I)	
	PHYS 1114, Physics for Non-Science Majors (Core II)	4	ARCH 1133, Intro. to Building Technology	3
	ARCH 1142, Design, Construction & Society	2	ARCH 1254, Design II - Craft and Making	4
	ARCH 1154, Design I - Design Fundamentals	4	Natural Science, with lab —(Core II) chosen from approved Gen. Ed. list	4
			Social Science—Advised Elective (Core III) <sup>†</sup>	3
	<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>	<b>17</b>

**Admission to second year is based upon first-year GPA and is subject to restriction based upon available program resources.**  
**All second-year courses are to be completed before advancing to the third year unless otherwise approved by the Director of the Division of Architecture.**

Year	FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
<b>SECOND YEAR</b>	P SC 1113, American Federal Government (Core III)	3	HIST 1483 or 1493, U.S. History (Core IV)	3
	ARCH 2333, Architecture & the Environment	3	ARCH 2233, Architectural Structures I	3
	ARCH 2354, Design III - Crafting Place	4	ARCH 2454, Design IV - Materials and Making	4
	ARCH 2243, History of Architecture I (Core IV)	3	ARCH 2343, History of Architecture II (Core IV)	3
	§Minor/Open Elective	3	§Minor/Open Elective	3
		<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>

**Admission to professional degree program required for advancement to years three and four. Admission is based on curriculum GPA and review of applicant dossier and available resources. Admission and continued enrollment in the professional program requires a minimum 2.50 OU retention and combined retention GPA.**

Year	FIRST SEMESTER	Hours	SECOND SEMESTER	Hours
<b>THIRD YEAR</b>	ARCH 3443, Modern & Contemporary Architecture	3	ARCH Elective (in Arch culture/history/theory)	3
	ARCH 3554, Studio V	4	ARCH 3654, Studio VI	4
	ARCH 3433, Environmental Controls I	3	Understanding Artistic Forms— (Core IV) <sup>†</sup>	3
	ARCH 3533, Architectural Materials	3	§Minor/Open Elective	3
	ARCH 3633, Architectural Structures II	3	§Minor/Open Elective	3
		<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>
<b>FOURTH YEAR</b>	ARCH 4754, Studio VII (Capstone)	4	ARCH 4854, Studio VIII	4
	§Minor/Open Elective	3	§Minor/Open Elective	3
	§Minor/Open Elective	3	§Minor/Open Elective	3
	ECOLOGY ELECTIVE—(chosen from suggested list)	3	§Minor/Open Elective	3
	§Minor/Open Elective	3	Non-Western Culture—Advised Elective (Core IV), upper-division, outside major <sup>†</sup>	3
		<b>TOTAL CREDIT HOURS</b>	<b>16</b>	<b>TOTAL CREDIT HOURS</b>

**§Minor/Open Elective (30 hours)**—student choice of a University approved minor in any other discipline to be completed within these 30 hours. Any open elective hours beyond the minor are the student's choice, but **may not** include architecture courses.  
♦May substitute MATH 1914 for MATH 1823.

#### University-Wide General Education Requirements (minimum 40 hours)

Courses designated as Core I, II, III, IV, or Capstone are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least <sup>†</sup>**one upper-division Gen. Ed. course outside of the student's major**. Courses graded S/U or P/NP will not apply.

<b>Core I</b>	<b>Symbolic and Oral Communication (9–19 hours, 3–5 courses)</b> •English Composition—6 hours, 2 courses •Mathematics—3 hours, 1 course •Foreign Language—0–10 hours, 2 courses in the same language, (which can be met by successfully completing two years of the same foreign language in high school) •Other (courses such as communication, logic or public speaking)
<b>Core II</b>	<b>Natural Science (7 hours, 2 courses)</b> •Courses must be taken from different disciplines in the biological and/or physical sciences; one of which must include a laboratory.
<b>Core III</b>	<b>Social Science (6 hours, 2 courses)</b> •One course must be P SC 1113, "American Federal Government"
<b>Core IV</b>	<b>Humanities (12 hours, 4 courses)</b> •Understanding Artistic Forms—3 hours, 1 course •Western Civilization and Culture—6 hours, 2 courses, including HIST 1483 or HIST 1493 •Non-Western Cultures—3 hours, 1 course

**Senior Capstone Experience (4 hours, 1 course)**

**§Minor/Open Elective** (30 hours)—Within these 30 hours students must complete a University-approved minor or a multidisciplinary concentration as approved by a faculty adviser appointed by the Division Director. Any open elective hours beyond the minor requirements are the student's choice but **may not** include architecture courses.

## COURSES IN ARCHITECTURE (ARCH)

**1133 Introduction to Building Technology.** Introduction of the historical development and application of basic architectural technology including building service systems, structures and systems of building technology. (Sp)

**1142 Design, Construction and Society.** An introduction to the issues forming and informing the built environment. The history, principles, and practices of architecture, construction, and interior design will be explored. (F)

**1154 Design I - Design Fundamentals.** Corequisite: 1112 and 1121. Development of foundational design, visual communication skills, and graphic conventions including sketching and drafting, shade and shadow, rendering methods, perspective, color, materials, and model building. Introduces processes of creating-making through methods engaged in critical thinking and experiential knowing. Methods of composition are introduced and explored: design elements and principles, proportion and scale, ordering systems, and organizational strategies. Introduction to issues of craft and material engagement. (F)

**1254 Design II – Craft and Making.** Prerequisite: 1112, 1121, and 1154 with a grade of C or better. Corequisite: 1223. A continuation in the development of fundamental design and visual communication skills through introductions to the material, formal, and spatial properties of architecture. Fabrication safety, craft, and techniques will be introduced and developed through the making of full-scale constructions. Continued ideas involving creating-making are explored through exercises in the formal, spatial, and material qualities of human environments. (Sp)

**2233 Architectural Structures I.** Prerequisite: Architecture major and completion of 1133, 1142, 1154, 1254, Physics 1114 and Mathematics 1823, or Construction Science major and completion of Physics 2414, and Mathematics 1823. Concepts, knowledge and methods of statics and strengths of materials for architects and constructors. (Sp)

**2243 History of Architecture I.** Prerequisite: majors only or permission of instructor. Corequisite: 2323, 2354; for Interior Design majors: completion of AHI 2213 and AHI 2223. A theoretical investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these affect the built environment from pre-history through the Renaissance. This course continues the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. (F) [IV-WC]

**2333 Architecture and the Environment.** Prerequisite: majors only; 1133, 1142, 1154, 1254. Building/site relationships and introduction of selected environmental and site design concepts. Knowledge and methods appropriate for architects. (F)

**2343 History of Architecture II.** Prerequisite: 2323, 2354, 2243; Corequisite: 2423, 2454. An investigation of the cultural, political, and aesthetic values of diverse Western and non-Western cultures and how these have affected the built environment from the Renaissance through the 19th century. A continuation of the development of critical writing skills and analytic skills that act to inform design decisions related to studio projects. (Sp)

**2354 Design III – Crafting Place.** Prerequisite: 1223, 1254 with a grade of C or better. Corequisite: 2323, 2243. Development of formal and spatial architectural components that demonstrate engagement with design principles, precedent analysis, human factors, and environmental and cultural influences on design. Expression of ideas through the application of virtual techniques of representation and visual communication are required. (F)

**2454 Design IV – Materials and Making.** Prerequisite: 2243, 2323, and 2354, with a grade of C or better. Corequisite: 2343, 2423. A continuation of ARCH 2354. Introduces projects of moderate complexities demonstrating intermediate design principles within the context of the urban environment. Application of both physical and virtual communication skills as professional techniques of representation and communication are required. (Sp)

**3433 Environmental Controls I.** Prerequisite: Architecture major and completion of 2233, 2243, 2333, 2343, 2354, 2454; or Construction Science major. Introduction to psychrometrics, heat transmission in buildings, heating, air conditioning and ventilation, solar heat gain, passive solar conditioning, plumbing and fire protection. (F)

**3443 Modern and Contemporary Architecture.** Prerequisite: 2343, 2423, and 2454. Corequisite: 3133, 3523, 3555; Interior Design majors: ID 3753. A survey and discussion of built artifacts of 20th century architectural culture and the last 25 years of significant world architecture. Emphasis is placed upon the formal, philosophical, social, technical, and economic contexts of the projects discussed, as well as their later reinterpretations. Continues the development of critical writing skills and further develops analytical skills that act to inform design decisions related to studio projects. (F)

**3533 Architectural Materials.** Prerequisite: 2233, 2243, 2333, 2343, 2354, 2454, and full program admission. The nature of building materials with regard to form, strength, durability, workability, structure, connections, surfaces and edges. Analysis of architectural expression in use of building materials. (F)

**3554 Studio V.** Prerequisite: 2233, 2243, 2333, 2343, 2354, 2454, and full program admission. Continuation of 2454. Introduces projects of increasing complexity. Individual and/or team architectural projects of substantial complexity focusing on the comprehensive integration of social, cultural, theoretical, environmental and technical influences on architecture. Application of professional techniques of representation and communication required. **Laboratory** (F)

**3633 Architectural Structures II.** Prerequisite: Architecture major and completion of 2233, 2243, 2354, 2454, and full program admission, or Construction Science major and completion of 2233. Extension of the study of architectural structures through structural design of simple building frameworks; simple structural systems for gravity, lateral and seismic loads in steel, wood and masonry; basic structural detailing. **Laboratory** (Sp)

**3654 Studio VI.** Prerequisite: 2233, 2243, 2333, 2343, 2354, 2454, and full program admission. Continuation of 3554. Introduces projects of urban issues. Individual and/or team architectural projects of substantial complexity focusing on the comprehensive integration of social, cultural, theoretical, environmental and technical influences on architecture. Application of professional techniques of representation and communication required. **Laboratory** (Sp)

**4754 Studio VII.** Prerequisite: 3433, 3443, 3533, 3554, 3633, 3654. Continuation of 3654. Introduces issues of building systems. Individual and/or team architectural projects at an advanced level focusing on the comprehensive integration of social, cultural, theoretical, environmental and technical influences on architecture. Application of professional techniques of representation and communication required. **Laboratory** (F) [V]

**4854 Studio VIII.** Prerequisite: 3433, 3443, 3533, 3554, 3633, 3654. Continuation of 4754. Introduces issues of environmental sustainability. Individual and/or team architectural projects at an advanced level focusing on the comprehensive integration of social, cultural, theoretical, environmental and technical influences on architecture. Application of professional techniques of representation and communication required. **Laboratory** (Sp)