REQUIREMENTS FOR THE BACHELOR OF ARCHITECTURE

COLLEGE OF ARCHITECTURE

THE UNIVERSITY OF OKLAHOMA

For Students Entering the Oklahoma State System for Higher Education **Summer 2015 through Spring 2016**

Credit Hours and Grade Average Requirements

Total Credit Hours. **160**
Minimum Upper-Division Hours Required **48**
Minimum Retention/Graduation Grade Point Averages:
Minimum OU Retention GPA **2.50**
Minimum Combined Retention GPA **2.50**
Minimum GPA on all Required Professional Courses **2.50**

Architecture–Five-Year Program

B045

Bachelor of Architecture

OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in five 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
FRESHMAN	**ARCH 1112**, Cultures of Collaborating, Creating, & Constructing	2	**ARCH 1223**, Methods II - Material Awareness	3
	ARCH 1121, Methods I-Introduction to Creating-Making	1	**ARCH 1254,** Design II - Craft & Making	4
	ARCH 1154, Design I-Design Fundamentals	4	**ENGL 1213**, Principles of English Composition (Core I), **or**	3
	ENGL 1113, Principles of English Composition (Core I)	3	**EXPO 1213**, Expository Writing (Core I)	
	♦**MATH 1523**, Precalculus and Trigonometry (Core I)	3	**HIST 1483 or 1493**, U.S. History (Core IV)	3
	P SC 1113, American Federal Government (Core III)	3	**Social Science**—Advised Elective (Core III)†	3
	TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**16**
	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 approvel by the Director of the Division of Architecture.			
SOPHOMORE	**ARCH 2243**, History of Architecture I (Core IV)	3	**ARCH 2343**, History of Architecture II (Core IV)	3
	ARCH 2323, Methods III - Design Analytics	3	**ARCH 2423**, Methods IV - Materials and Form	3
	ARCH 2354, Design III - Crafting Place	4	**ARCH 2454**, Design IV-Materials & Making	4
			PHYS 1114, Physics for Non-Science Majors (Core II)	4
	Natural Science, with lab—(Core II) chosen from approved Gen. Ed. list	4	**Ecology Elective**—(chosen from suggested list)	3
	Understanding Artistic Forms— (Core IV)†	3		
	TOTAL CREDIT HOURS	**17**	**TOTAL CREDIT HOURS**	**17**
	Admission to professional degree program required for advancement to years three, four and five. 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 OU retention and combined retention GPA of 2.50.			
JUNIOR	**ARCH 4133**, Architectural Structures I	3	**ARCH 4233**, Architectural Structures II	3
	ARCH 4453, Modern & Contemporary Architecture	3	**ARCH 4543**, Research & Critical Writing Seminar	3
	ARCH 4523, Methods V-Thermal Systems	3	**ARCH 4623**, Methods VI-Auxiliary Systems	3
	ARCH 3555, Design V-Architectural Making I	5	**ARCH 3655**, Design VI-Architectural Making II	5
	Non-Western Culture — (Core IV), upper-division	3	Open Elective	3
	TOTAL CREDIT HOURS	**17**	**TOTAL CREDIT HOURS**	**17**
SENIOR	**ARCH 4333**, Advanced Structures	3	**ARCH 4823,** Methods VIII-Architectural Analytics	3
	ARCH 4723, Methods VII-Advanced Systems	3	**ARCH 4855**, Design VIII-Architectural Synthesis	5
	ARCH 4755, Design VII-Systems & Context	5	‡**Professional Elective**	3
	§Open Elective	3	§Open Elective	3
	ARCH 4000, Foreign Study (may be taken any semester)	0	**ARCH 5160**, Preceptorship (may be taken any semester after ARCH 3655)	0
	TOTAL CREDIT HOURS	**14**	**TOTAL CREDIT HOURS**	**14**
FIFTH YEAR	**ARCH 5922,** Methods IX-Contemporary Practice	2	**ARCH 5022**, Methods X-Leadership in Practice	2
	ARCH 5955, Design IX-Comprehensive Architecture I	5	**ARCH 5055**, Design X - Comprehensive Architecture II (Core V)	5
	‡**Professional Elective**	3	‡**Professional Elective**	3
	§Open Elective	3	§Open Elective	3
	§Open Elective	3	§Open Elective	3
	TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**16**

§**Open Elective** (21 hours)—Any open elective hours are the student's choice but **may not** include architecture courses.
‡**Professional Elective** (9 hours)—student choice of upper-division courses in architecture or related discipline.
♦May substitute MATH 1823 or 1914 for MATH 1523.

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 †**one upper-division Gen. Ed. course outside of the student's major.** Courses graded S/U or P/NP will not apply.

Core I	**Symbolic and Oral Communication (9–19 hours, 3–5 courses)** •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)
Core II	**Natural Science (7 hours, 2 courses)** •Courses must be taken from different disciplines in the biological and/or physical sciences; one of which must include a laboratory.
Core III	**Social Science (6 hours, 2 courses)** •One course must be P SC 1113, "American Federal Government"
Core IV	**Humanities (12 hours, 4 courses)** •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 (5 hours, 1 course - *as required by the College of Architecture*)	

COURSES IN ARCHITECTURE (ARCH)

1112 Cultures of Collaborating, Creating, and Constructing. Prerequisite: Architecture or Environmental Design major. Introduction to the foundations of the various planning, design, and construction disciplines. Focus on the collaborative process for creating and constructing the built environment. Histories of expertise areas such as planning, architecture, landscape architecture, interior design, construction science, engineering, and graphic environmental design will be explored and related to how these have evolved to their contemporary conditions. (F)

1121 Methods I – Introduction to Creating-Making. Corequisite: 1112, 1154. An introduction to the historical and theoretical issues forming and informing the built environment. The relationships of conceptual, methodological, and representational skills related to designed environments will be introduced and developed. Design vocabulary, studio culture, and architectural discourse will be explored and related within the framework of Creating-Making. (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)

1223 Methods II – Material Awareness. Prerequisite: 1112, 1121, and 1154 with a grade of C or better. Corequisite: 1254. An introduction to the influences of materials and technology on designed environments. Introduction of the historical development and application of basic architectural technology. Introduction to structural systems and components and to the formal/spatial/material characteristics of building technology. (Sp)

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)

2243 History of Architecture I. Prerequisite: majors only or permission of instructor. Corequisite: 2323, 2354; for Interior Design majors: completion of A HI 2213 and A HI 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]

2323 Methods III - Design Analytics. Prerequisite: 1223, 1254 with a grade of C or better. Corequisite: 2354, 2243. An introduction to historical precedent, human factors, and the physical and cultural contexts associated with the built environment. The contextual relationships between building, site, and culture will be explored through an introduction to various environmental and site design concepts, skills, 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)

2423 Methods IV – Materials and Form. Prerequisite: 2243, 2323, and 2354 with a grade of C or better. Corequisite: 2343, 2454. An introduction to the nature of building materials with regard to form, strength, durability, workability,structure,connections,surfaces,andedges. Analysis of architectural expression through the use of building materials including the effects of: light, air movement, humidity, and their relationships to both one another and formal and spatial expressions. Provides a phenomenological foundation for more technical development in Methods V. (Sp)

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)

3555 Design V – Architectural Making I. Prerequisite: ARCH 2343, ARCH 2423, and ARCH 2454. Corequisite: ARCH 4133, ARCH 4453, and ARCH 4523. Introduces client-initiated programming as an influence on design process. Issues related to structural systems, thermal control systems, and life safety will be explored. Site issues including access/egress/parking, building orientation, and hydrology and subsurface conditions will be introduced as factors affecting Creating-Making. An introduction to software essential to simulation of building performance as a means to integrate climatic conditions, building and site orientations, materials, and form in sustainable ways. (F)

3655 Design VI – Architectural Making II. Prerequisite: ARCH 4133, ARCH 4453, ARCH 4523, and ARCH 3555. Corequisite: ARCH 4233, ARCH 4623. This course is a continuation of Design V with an introduction to passive and active forms of lighting, acoustics, conveyance systems, and electrical systems. An emphasis will be placed on the relation between these auxiliary building systems and Creating-Making. Issues of sustainability including environmental impacts, resource utilization, ethical resource efficiencies and performance-based design will be related to concepts of Creating-Making. Codes and standards that effect the built environment will be explored. (Sp)

4133 Architectural Structures I. (Slashlisted with 5133) Prerequisite: ARCH 2423, ARCH 2454, ARCH 2343, MATH 1823, and PHYS 1114; Corequisite: ARCH 4523, ARCH 3555, ARCH 4453; or Construction Science major and completion of PHYS 2414 and MATH 1823. An introduction to basic physics, forces within structural systems, material strength, and associated structural engineering principles. Develops both intuitive and empirical knowledge of forces within structural systems that serve as a foundation for future courses within the Structures sequence. The course will engage and influence exercises in Design V in order to develop intuitive understanding of structures and to introduce analytical tools necessary to creating-making. No student may earn credit for both 4133 and 5133. (F)

4233 Architectural Structures II. (Slashlisted with 5233) Prerequisite: ARCH 4133, ARCH 4453, ARCH 4523, and ARCH 3555. Corequisite: ARCH 4543, ARCH 3655. Focus is on wood, concrete, and steel as structural materials. Students will develop an understanding of engineering principles as they apply to each of these structural materials. Material properties, common manufactured systems, common material sections, and common connection types will be explored with students demonstrating the ability to develop technical details related to various structural systems. No student may earn credit for both 4233 and 5233. (Sp)

4333 Advanced Structures. (Slashlisted with 5333) Prerequisite: ARCH 4233, ARCH 4623, and ARCH 3655; Corequisite: ARCH 4723, and ARCH 4755. Continuation of engagement with wood, concrete, and steel structural systems and introduces complex structural systems and their developed connections. Building materials and systems will be related to building detailing and structural connections. Code and life safety issues will be introduced as they relate to structural systems. Cost effectiveness and system selection are included in course material. No student may earn credit for both 4333 and 5333.(F)

4453 Modern and Contemporary Architecture. (Slashlisted with 5453) Prerequisite: ARCH 2343, ARCH 2423, and ARCH 2454. Corequisite: ARCH 4133, ARCH 4523, ARCH 3555; Interior Design majors: I D 3753. 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. No student may earn credit for both 4453 and 5453. (F)

4523 Methods V - Thermal Systems. (Slashlisted with 5523) Prerequisite: ARCH 2343, ARCH 2423, and ARCH 2454. Corequisite: ARCH 4133, 4453 and ARCH 3555. Introduction to psychometrics, heat transmission in buildings, heating, air conditioning and ventilation, solar heat gain, passive solar conditioning, plumbing, and fire protection. No student can earn credit for both 4523 and 5523. (F)

4543 Research and Critical Writing Seminar. (Slashlisted with 5543) Prerequisite: ARCH 2243, ARCH 2343, ARCH 4453, and permission of instructor. Corequisite: ARCH 4623, and ARCH 3655. The development of research and academic writing in an urban and architectural context. Original research and/or analysis and a fully annotated term paper are required. Topics may range from periods, politics, technology, economics, religion, gender, and culture. A continuation of the development of critical writing skills and further develops analytic skills that act to inform design decisions related to studio projects. Open to non-architecture majors to encourage interdisciplinary research/writing. No student may earn credit for both 4543 and 5543. (Sp) [IV-WC]

4623 Methods VI – Auxiliary Systems. (Slashlisted with 5623) Prerequisite: ARCH 4133, ARCH 4453, ARCH 4523, ARCH 3555. Corequisite: ARCH 4233, ARCH 3655; Interior Design majors: I D 3723 and I D 3793. Introduction to lighting, acoustics, and other auxiliary systems that impact the Creating-Making of the built environment. These systems are discussed in relation to issues of sustainability and human comfort. Codes and standards that effect building design will be introduced and discussed. No student may earn credit for both 4623 and 5623. (Sp)

4723 Methods VII – Advanced Systems. (Slashlisted with 5723) Prerequisite: ARCH 4233, ARCH 4623, ARCH 3655. Corequisite: ARCH 4333, ARCH 4755. Introduction to advanced issues of structure, building systems, sustainability, and integrated building management systems. Course material will develop advanced understanding of the theories and practices of these complex systems and their effects on the built environment. No student may earn credit for both 4723 and 5723. (F)

4755 Design VII – Systems and Context. Prerequisite: ARCH 4233, ARCH 4623, ARCH 3655. Corequisite: ARCH 4333, ARCH 4723. Emphasizes the relationship of schematic design to contract documents in order to understand structural, mechanical, electrical, plumbing, and other systems within buildings. Students demonstrate an understanding of drafting conventions, the production of traditional contract documents, Building Information Modeling, and the communication of additional solutions necessary for construction. A major component of the course is dedicated to developing interdisciplinary and collaborative skills through team-based projects and other small group exercises. (F)

4823 Methods VIII – Architectural Analytics. (Slashlisted with 5823) Prerequisite: ARCH 4333, ARCH 4723, ARCH 4755. Corequisite: ARCH 4855. Seminar format course introduces students to less common structural systems: pneumatics, shells, folded plate, high-rise structures, manufactured components and assemblies, and long span systems in buildings. Course also focuses on the Design Development phase of architectural production with the introduction of limits of responsibility for architects, various specification types, integrated project delivery, preliminary cost estimating, etc. Studio project will be utilized to demonstrate alternative proposal methods and evaluation as part of the design decision-making process. No student may earn credit for both 4823 and 5823.(Sp)

4855 Design VIII – Architectural Synthesis. Prerequisite: 4333, 4723, and 4755, all with a grade of C or better. Corequisite: 4823. Emphasizes the development of a complete project from schematic design through design development and construction detailing. Students develop a building of limited programmatic complexity through more complete technical development. The application of Building Information Modeling software will be required. Also addresses and builds upon the collaborative and analytic knowledge developed in ARCH 4755. (Sp)

G5022 Methods X – Leadership in Practice. Prerequisite: ARCH 5922, ARCH 5955, or permission of graduate liaison. Corequisite: ARCH 5055. Explores innovative practices in contemporary architectural practice. Issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession are discussed. Innovative methods of digital prototyping and performance modeling related to project delivery will also be explored. Emphasis is placed upon the leadership role that architects can assume in the design and construction disciplines in the community and in education. Local regional, national, and global leadership opportunities are examined. (Sp)

G5055 Design X – Comprehensive Architecture II. Prerequisite: ARCH 5922, ARCH 5955, or permission of graduate liaison. Corequisite: 5022. A continuation of ARCH 5955 and the project development begun in that course. Students are expected to further develop their project to a level of Design Development and limited Construction Detailing. The course encourages the continued exploration, speculation, and experimental innovation begun in Design IX extended into materials detailing, construction methods, mechanical systems, and creative spatial and aesthetic development. Component and assembly prototyping and performance modeling are a significant component of the course. (Sp) [V]

G5922 Methods IX – Contemporary Practice. Prerequisite: ARCH 4823, ARCH 4855, or permission of graduate liaison. Corequisite: ARCH 5955. Explores issues in contemporary architectural practice including the role of the client, contracts, practice and project management, leadership skills, legal responsibilities, ethics and professional judgment, and community and social responsibilities. Emphasis is placed upon issues of cultural and environmental sustainability, political activism, and the changing role of the architecture profession. Knowledge of techniques is developed for project justification from establishing the scope of projects to cultural, sustainable, and financial feasibility. The course contains program specific research and support related to studio projects. (F)

G5955 Design IX – Comprehensive Architecture I. Prerequisite: ARCH 4823, ARCH 4855 or permission of graduate liaison. Corequisite: ARCH 5922. The first of a two-semester sequence; includes the design of a moderately complex building on a contextual site. Encourages innovative exploration, analysis, speculation, and experimentation in developing schematic proposals. Students will develop an architectural program, establish pro-forma attributes, conduct feasibility studies for their chosen project, develop solutions with refined mechanical, electrical, structural, and material components. Both active and passive energy systems, issues of sustainability, issues of site and context, life safety issues, and traditional functional and aesthetic requirements will be integral to design solutions. Includes a significant focus on ethical, environmental, sustainable, social, material, and historical issues related to Creating-Making within the built environment. (F)