### Requirements for the Bachelor of Science in Construction Science

#### College of Architecture

The University of Oklahoma

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

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OU encourages students to complete at least 32-33 hours of applicable coursework each year to have the opportunity to graduate in four years.

<table>
<thead>
<tr>
<th>Year</th>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td><strong>CNS 1112, Cultures of Collaborating, Creating &amp; Constructing</strong></td>
<td>2</td>
<td><strong>ENGL 1213, Principles of English Composition (Core I), or</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>COMM 1113, Principles of Communication</strong></td>
<td>3</td>
<td><strong>EXPO 1213, Expository Writing (Core I)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ENGL 1113, Principles of English Composition (Core I)</strong></td>
<td>3</td>
<td><strong>MATH 1182, Calculus I (Core I)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>HIST 1483 or 1493, U.S. History (Core IV)</strong></td>
<td>3</td>
<td><strong>PSC 1113, American Federal Government (Core III)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>PHIL 1213, Introduction to Ethics</strong></td>
<td>3</td>
<td><strong>GEOL 1114, Physical Geology (Core II)</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td>14</td>
<td></td>
<td><strong>CNS 1212, Computers in Construction</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td><strong>ACCT 2113, Fundamental Financial Accounting</strong></td>
<td>3</td>
<td><strong>ACCT 2123, Fundamental Managerial Accounting</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>B C 2813, Business Writing</strong></td>
<td>3</td>
<td><strong>ECON 1123, Principles of Economics—Micro (Core III)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECON 1113, Principles of Economics—Macro (Core III)</strong></td>
<td>3</td>
<td><strong>PHYS 1311, General Physics Lab I (Core II)</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 2714, Materials &amp; Methods I</strong></td>
<td>4</td>
<td><strong>PHYS 2414, General Physics for Life Science Majors (Core II)</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>ARCH 2243 or 2343, History of Architecture I (Core IV) or II</strong></td>
<td>3</td>
<td><strong>CNS 2813, Construction Documents &amp; Quantity Surveying</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td>16</td>
<td></td>
<td><strong>CNS 2812, Construction Fundamentals Lab</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 2822, Materials and Methods II</strong></td>
<td>2</td>
<td><strong>CNS 2822, Construction Fundamentals Lab</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

A minimum 2.50 OU and combined retention GPA is required for admission to Construction Science program. Admission is limited to the top 25 GPAs based on all courses listed above. All courses listed above must be completed before applying for admission to the junior year.

<table>
<thead>
<tr>
<th>Year</th>
<th>First Semester</th>
<th>Hours</th>
<th>Second Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Junior</strong></td>
<td><strong>CNS 3103, Construction Surveying</strong></td>
<td>3</td>
<td><strong>CNS 3223, Structures I</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 3123, Statics &amp; Strengths of Materials</strong></td>
<td>3</td>
<td><strong>CNS 3443, Mechanical, Electrical &amp; Plumbing Systems I</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 3433, Mechanical, Electrical &amp; Plumbing Systems I</strong></td>
<td>3</td>
<td><strong>CNS 3824, Project Controls Management</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 3512, Cost Estimating</strong></td>
<td>2</td>
<td><strong>CNS 3821, Project Controls Lab II</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 3612, Project Controls Lab I</strong></td>
<td>2</td>
<td><strong>ECON 2843, Elements of Statistics (Core I)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 3812, Project Planning &amp; Scheduling</strong></td>
<td>2</td>
<td><strong>L S 3323, Legal Environment of Business</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td>18</td>
<td></td>
<td><strong>CNS 3013, Principles of Organization &amp; Management</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Summer</strong></td>
<td><strong>CNS 3943, Field Work</strong></td>
<td>3</td>
<td><strong>CNS 3943, Field Work</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td><strong>CNS 4112, Understanding Design Services</strong></td>
<td>2</td>
<td><strong>CNS 4153, Legal Issues in Construction</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 4113, Structures II</strong></td>
<td>3</td>
<td><strong>CNS 4881, Construction Safety Management</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 4122, Building Information Modeling for Construction</strong></td>
<td>2</td>
<td><strong>CNS 4993, Construction Science Capstone (Capstone)</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 4523, Pre-Construction Services</strong></td>
<td>3</td>
<td><strong>CNS 4523, Pre-Construction Services</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>CNS 4613, Soils and Foundations</strong></td>
<td>3</td>
<td><strong>Construction Science Elective (upper-division)</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Understanding Artistic Forms Elective (Core IV)</strong></td>
<td>3</td>
<td><strong>Non-Western Culture Elective (Core IV)—Upper-Division</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Credit Hours</strong></td>
<td>16</td>
<td></td>
<td><strong>Senior Capstone Experience (3 hours, 1 course)</strong></td>
<td>1</td>
</tr>
</tbody>
</table>

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

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**Construction Science B250 Bachelor of Science in Construction Science**

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Minimum GPA on all Required Professional Courses: 2.50

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Minimum grade of C is required in all CNS courses.

**CNS students are strongly encouraged to obtain a minor in Architecture, Business, or Communication.**

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**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 PSC 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

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**Core I**
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  - English Composition–6 hours, 2 courses
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  - 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 PSC 1113, “American Federal Government”

**Core IV**
- Humanities (12 hours, 4 courses)
  - Understanding Artistic Forms–3 hours, 1 course
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  - Non-Western Cultures–3 hours, 1 course
3812 Project Planning and Scheduling. Prerequisite: 2813. Corequisite: 3512 and 3612. Application of scheduling techniques in an integrated construction planning, scheduling, and control system. Students will gain knowledge of scheduling theory scheduling options, legal implications and practical applications of scheduling software. Students will schedule a building project using computer software. (F)

3824 Project Controls Management. Prerequisite: 3512 and 3812; corequisite: 3824. Lab applies the concepts learned in project management and controls to a construction project. (Sp)

4112 Understanding Design Services. Prerequisite: 3824. Course explores the roles and responsibilities of the owner, architect, engineer, and construction consultant and their interface with the contractor from project conception to completion. (F)

4113 Structures II. Prerequisite: 2223. Extension of the study of building structures through structural design of continuous building frameworks; loads, concrete structural systems, foundations, connections, and structural detailing. (F)

4122 Building Information Modeling for Construction. Prerequisite: 3824. Emphasizes the skills and knowledge required by the contractor to participate in the creation, projection, and execution of a project using BIM. Students combine knowledge of materials, methods, drafting, estimating and scheduling with BIM computer applications. (F)

4153 Legal Issues in Construction. Prerequisite: 4523 and Legal Studies 3323. An examination of recent developments in the law of construction contracts. Includes legal ramifications of construction bidding, contracts, changes, delays and dispute resolution. Emphasis is on the reduction of dispute through knowledge. (Sp)

4253 Pre-Construction Services. Prerequisite: 3824. Explores the role of the contractor, the subcontractor, and their collaboration with design professions and owners during the design and construction phases of a project. (F)

4513 Soils and Foundations. Prerequisite: 3223. Content includes identification and classification of soil properties as they pertain to a construction project, the role of the geotechnical engineer, soil reports, soil preparation, foundation design, soil testing, and the causes of building failures. (F)

4881 Construction Safety Management. Prerequisite: 4523. Emphasizes the importance of safety in the construction industry through guest speakers, readings and other safety materials. Emphasis will be placed on safety as it relates to entry-level management positions and the professional responsibility in creating a safe job-site environment. (F)

4993 Construction Science Capstone. Prerequisite: 4112, 4113, 4223, 4253, 4613. All CNS classes in the CNS curriculum prior to the final semester of the senior year must be successfully completed before enrolling in the CNS capstone class. The capstone course is the culmination of the construction science undergraduate experience. Students apply all aspects of the construction project management process to a single construction project. Class interaction requires participants to utilize and extend knowledge of all areas of expertise used by construction managers. Teamwork, interdisciplinary collaboration and cooperation is emphasized. (Sp)