## 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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit Hours</td>
<td>129</td>
</tr>
<tr>
<td>Minimum Upper-Division Hours Required</td>
<td>48</td>
</tr>
<tr>
<td>Minimum Retention/Graduation Grade Point Averages:</td>
<td></td>
</tr>
<tr>
<td>Minimum OU Retention GPA</td>
<td>2.50</td>
</tr>
<tr>
<td>Minimum Combined Retention GPA</td>
<td>2.50</td>
</tr>
<tr>
<td>Minimum GPA on all Required Professional Courses</td>
<td>2.50</td>
</tr>
</tbody>
</table>

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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.

#### Freshman

<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></td>
<td>CNS 1113, Construction Industry</td>
<td>3</td>
<td>ENGL 1213, Principles of English Composition (Core I), or 1113, Principles of English Composition (Core I)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COMM 1113, Principles of Communication</td>
<td>3</td>
<td>EXPO 1213, Expository Writing (Core I)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 1113, Principles of English Composition (Core I)</td>
<td>3</td>
<td>MATH 1823, Calculus I (Core I)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIST 1483 or 1493, U.S. History (Core IV)</td>
<td>3</td>
<td>PS 1113, American Federal Government (Core III)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>OPEN ELECTIVE</td>
<td>3</td>
<td>GEOL 1114, Physical Geology (Core II)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>15</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>15</td>
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</table>

#### Sophomore

<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></td>
<td>ACCT 2113, Fundamental Financial Accounting</td>
<td>3</td>
<td>ACCT 2123, Fundamental Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECON 1113, Principles of Economics—Macro (Core III)</td>
<td>3</td>
<td>B.C. 2813, Business Communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHYS 1311, General Physics Lab I (Core II)</td>
<td>1</td>
<td>ECON 1123, Principles of Economics—Micro (Core III)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHYS 2414, General Physics for Life Sciences Majors (Core II)</td>
<td>4</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CNS 2713, Construction Materials &amp; Procedures</td>
<td>3</td>
<td>CNS 2813, Construction Documents</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ARCH 2243 or 2343, History of the Built Environment I or II (Core IV)</td>
<td>3</td>
<td>CNS 2913, Construction Equipment and Methods</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>17</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
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</table>

#### Junior

<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></td>
<td>CNS 3103, Construction Surveying</td>
<td>3</td>
<td>CNS 3153, Legal Issues in Construction</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CNS 3113, Project Construction Administration</td>
<td>3</td>
<td>CNS 3813, Project Planning and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CNS 3513, Construction Cost Estimating</td>
<td>3</td>
<td>CNS 3943, Field Work</td>
<td>3</td>
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<tr>
<td></td>
<td>ECON 2843, Elements of Statistics (Core I)</td>
<td>3</td>
<td>ARCH 3633, Architectural Structures II</td>
<td>3</td>
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<tr>
<td></td>
<td>LS 3323, Business Law</td>
<td>3</td>
<td>UNDERSTANDING ARTISTIC FORMS ELECTIVE (Core IV)</td>
<td>3</td>
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<tr>
<td></td>
<td>ARCH 2233, Architectural Structures I</td>
<td>3</td>
<td>PHIL 3273, Ethics and Business (Core IV)</td>
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<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>18</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

#### Senior

<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></td>
<td>ARCH 3433, Environmental Controls I</td>
<td>3</td>
<td>ARCH 4833, Environmental Controls II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CNS 4123, Construction Economics</td>
<td>3</td>
<td>MGT 3013, Principles of Organization &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CNS 4523, Construction Cost Estimating II</td>
<td>3</td>
<td>CNS 4993, Construction Science Capstone (Capstone)</td>
<td>3</td>
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<tr>
<td></td>
<td>CNS 4613, Soils and Foundations</td>
<td>3</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CNS 4881, Construction Safety Management</td>
<td>1</td>
<td>Construction Science Elective (upper-division)</td>
<td>3</td>
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<tr>
<td></td>
<td>ARCH 4733, Architectural Structures III</td>
<td>3</td>
<td>NON-WESTERN CULTURE ELECTIVE (Core IV)—UPPER-DIVISION</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>16</td>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

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### A minimum grade of C is required in all CNS courses.

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

### 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—6–10 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

### Senior Capstone Experience (3 hours, 1 course)

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Bachelor of Science in Construction Science

0208B

For Students Entering the Oklahoma State System for Higher Education

Summer 2008 through Spring 2009
3813 Project Planning and Scheduling. Prerequisite: 3113, 3513. Application of scheduling techniques in an integrated construction planning, scheduling and control system. Includes theory, options, legal implications and practice. Students plan the construction of their projects from estimating and use microcomputer software to schedule and set up control systems for the projects. Laboratory (Sp)

4123 Construction Economics. Prerequisite: 3813. Learn to work with the time value of money, present value, and sensitivity analysis. Develop both graphic and computer-based cash flow models of typical income-producing construction projects. (F)


4881 Construction Safety Management. Prerequisite: junior standing in Construction Science major. An overview of the entry-level management positions in the construction industry through the use of guest speakers, leadership training programs, and attendance at professional organizational meetings. Provides students with an introduction to construction site and associated recordkeeping and reporting. (F)

4993 Construction Science Capstone. Prerequisite: all required CNS courses through fall semester of the senior year. A capstone course integrating all aspects of the construction project management process. Class interaction requires participants to utilize and extend knowledge of areas of expertise used by construction managers. (Sp) [V]

COURSES IN ECONOMICS (ECON)

1113 Principles of Economics—Macroeconomics. The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; money and banking, capital and fiscal policy; and aspects of international interdependence. Laboratory (F), Sp, Su [III-SS]

1123 Principles of Economics—Microeconomics. Goals, incentives and allocation of resources resulting from economic behavior with applications and illustrations from current issues: operation of markets for goods, services and factors of production; the behavior of firms and industries in different types of competition and income distribution. Laboratory (F), Sp, Su [II-SS]

2843 Elements of Statistics. Prerequisite: Mathematics 1443 or equivalent. Basic statistical techniques emphasizing business and economic applications. Topics covered include data summary techniques, elementary probability theory, estimation, hypothesis testing, simple regression, time-series and index numbers. Laboratory (F, Sp, Su) [III-M]

COURSES IN GEOLOGY (GEOI)

1114 Physical Geology for Science and Engineering Majors. Prerequisite: equivalent knowledge of high school chemistry, algebra and trigonometry. Laboratory included. Plate tectonics, the makeup of continents and mountain building. Heat flow, magnetism, gravity, rock deformation, earthquakes and the earth's interior. Surface processes including weathering, erosion, transport and deposition. Landforms, rivers, groundwater, glaciers, ocean processes, and volcanoes. Minerals and rocks. Application of geology to land-use, groundwater, mineral and fossil fuel exploration. Laboratory (F, Sp) [III-LAB]

COURSES IN LEGAL STUDIES (LS)

3323 Legal Environment of Business. Prerequisite: junior standing. The legal environment of business organizations with ethical considerations and the social and political influences affecting such environments. (F, Sp, Su)

COURSES IN MANAGEMENT (MGT)

3013 Principles of Organization and Management. Prerequisite: junior standing. An introductory course presenting the basic concepts and practices of management, both private and public. Historical development of management; basic definitions and philosophy; fundamental managerial functions, including planning, organizing, staffing, directing, and controlling; a survey approach to quantification in organizational life; current trends in management; possible future developments in organization and administration. (F, Sp, Su)

COURSES IN PHILOSOPHY (PHIL)

3273 Ethics and Business. Prerequisite: Six hours of philosophy or junior standing. A study of how ethics illustrates business activity. Topics include: the philosophical bases of capitalism; the legitimacy of the profit motive; virtue and the marketplace; corporate responsibility; government regulation; the marketplace and the environment; the ethics of advertising; employee privacy; and the challenges posed by the developing information age. (lreg) [IV-WC]

COURSES IN PHYSICS (PHYS)

1311 General Physics Lab I. Corequisite: 2414 or 2514. Experiments in basic law of mechanics and thermodynamics. (F, Sp, Su) [II-LAB]

2414 General Physics for Life Science Oriented Majors. Prerequisite: Mathematics 1523 or 1723. Not open to students actively involved in electronics, nuclear science, or computer science. Kinematics and dynamics of particles and rigid bodies, gravitation, equilibrium, momentum, energy, static and flowing fluids, kinetic theory, heat and thermodynamics, vibrations, waves and sound. (F, Sp, Su) [II-NL]