### REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN CONSTRUCTION SCIENCE

**COLLEGE OF ARCHITECTURE**

**THE UNIVERSITY OF OKLAHOMA**

**For Students Entering the Oklahoma State System for Higher Education**

**Summer 2009 through Spring 2010**

#### Credit Hours and Grade Average Requirements
- **Total Credit Hours:** 129
- **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

#### 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>
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<tr>
<td>CNS 1113, Construction Industry</td>
<td>3</td>
<td>ENGL 1213, Principles of English Composition (Core I), or Social Science (6 hours, 2 courses)</td>
<td>3</td>
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<tr>
<td>COMM1113, Principles of Communication</td>
<td>3</td>
<td>EXPO 1213, Expository Writing (Core I)</td>
<td>3</td>
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<tr>
<td>ENGL 1113, Principles of English Composition (Core I)</td>
<td>3</td>
<td>MATH 1823, Calculus I (Core I)</td>
<td>3</td>
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<tr>
<td>HIST 1483 or 1493, U.S. History (Core IV)</td>
<td>3</td>
<td>P SC 1113, American Federal Government (Core III)</td>
<td>3</td>
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<td>OPEN ELECTIVE</td>
<td>3</td>
<td>GEO1 1114, Physical Geology (Core II)</td>
<td>4</td>
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<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>15</strong></td>
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<td><strong>SOPHOMORE</strong></td>
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<tr>
<td>ACCT 2113, Fundamental Financial Accounting</td>
<td>3</td>
<td>ACCT 2123, Fundamental Managerial Accounting</td>
<td>3</td>
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<tr>
<td>ECON 1113, Principles of Economics—Macro (Core III)</td>
<td>3</td>
<td>B C 2813, Business Communication</td>
<td>3</td>
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<tr>
<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>
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</tr>
<tr>
<td>PHYS 2414, General Physics for Life Sciences Majors (Core II)</td>
<td>4</td>
<td>CNS 2813, Construction Documents</td>
<td>3</td>
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<tr>
<td>CNS 2713, Construction Materials &amp; Procedures</td>
<td>3</td>
<td>CNS 2913, Construction Equipment and Methods</td>
<td>3</td>
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<tr>
<td>ARCH 2243 or 2343, History of the Built Environment I or II (Core IV)</td>
<td>3</td>
<td>*CNS 1212, Computers in Construction</td>
<td>2</td>
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<tr>
<td><strong>TOTAL CREDIT HOURS</strong></td>
<td><strong>17</strong></td>
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<td><strong>15</strong></td>
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</tbody>
</table>

*This course fulfills the Computer Literacy Requirement for graduation as required by the Oklahoma State Regents for Higher Education.

**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)

- **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** (3 hours, 1 course)

*These requirements are in addition to the requirements for the bachelor’s degree. The university encourages students to take coursework that fulfills multiple requirements whenever possible.*
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)

4536 Estimating and Cost Work. Prerequisite: junior standing and permission. Utilize a construction work experience to prepare for management construction functions. Student is responsible for finding the construction-related activity and proposing a work-related project. Written and oral presentation is required. (Su)

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—Macro. The functioning and current problems of the aggregate economy: determination and analysis of national income, employment, inflation and stabilization; money and banking; fiscal and fiscal policy; and aspects of international interdependence. Laboratory (F, Sp; Su) [II-LAB]

1113 Principles of Economics—Micro. 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-LAB]

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 (GEOL)
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 (L S)
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 PHYSICS (PHYS)
1311 General Physics Lab I. Corequisites: 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 business majors. 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]