Rapid growth of the construction industry demands a new kind of professional: the manager of construction.

The construction industry is the largest single industry in the United States. The annual dollar volume of work is about $1 trillion, nearly 9 percent of gross domestic product. National contractors organizations report that thousands of graduates a year find employment in the industry. As the industry grows, so does the need for qualified, university-trained people.

Ever-changing technological advancements in the construction industry demand competence and technical skill. Graduation from K-State’s construction science and management program will enable you to advance as far as your talent and determination will take you. Those who are most successful have acquired the proper academic training to meet the increasing complexity of this industry.

The rewards of working in construction are many: an active life, self-satisfaction, a sense of accomplishment, generous salaries and financial security for graduates who eventually become owners of their own companies.

Employment opportunities

Each year jobs in the construction industry go unfilled because of a shortage of qualified managers with a college education in construction management. This shortage means more job opportunities for those with the proper training.

Employment opportunities are diversified and are available not only in the construction industry, but also in related fields such as the building material industry and land development.

Graduates may become a project manager, general superintendent, estimator, cost engineer, scheduler, facility manager, expeditor, purchasing agent, office manager, sales engineer, building inspector, field engineer, safety engineer or construction company owner.

The program

The program is an engineering-based management program designed to prepare you to be a professional and a technically competent manager of personnel resources, financial resources, materials, equipment and methods.

In preparation for a degree in construction science and management, you should take all high school or community college courses available in math, physics, English and speech.

The program includes courses in math, engineering science, materials, business and management, and it prepares you to build the designs created by engineers and architects.

You’ll enter the construction field in areas generally categorized as:

Building construction
Apartments, office buildings, industrial plants, hospitals, churches and schools.

Heavy or highway construction
Dams, tunnels, flood control projects, highways and bridges.

Utilities construction
Water and wastewater treatment plants, distribution systems, power lines and pipelines.

Specialty construction
This includes the installation of specialized material, equipment and systems that are specified in the construction project. Such areas would include mechanical, electrical, plumbing and other specialty construction.

Dual degrees

Some students enter dual-degree programs with construction and a major in architectural engineering, civil engineering or business administration. This usually requires extra years of study.

A cooperative education program is also available. Students can obtain construction experience beyond just summer work. This provides valuable experience in construction before graduation.

Minors available

Students are encouraged to consider broadening their course of study through pursuit of a minor. A minor requires completion of at least 15 designated hours of course work in an area outside their major curriculum. Students completing all requirements for a minor will receive official recognition for their emphasis on their permanent records.

Departments offering minors have specified courses that enable students to acquire moderate expertise in their discipline. Courses forming a minor may be used to satisfy the general requirements of a major curriculum, including free electives.

Admission to program

Admission to the pre-professional program
Students should submit an application for admission directly to the admissions office. The admission criteria are the same as those for the university and the College of Engineering.

Admission to the professional program
Pre-professional students must complete the first three semesters of the program before taking any upper-division professional program courses in construction science and management. This is based upon the criteria outlined in the undergraduate catalog for the professional program.
B.S. in construction science and management


Pre-professional program

Hrs. First semester
4 MATH 220 Analytical Geometry and Calculus I
3 DEN 210 History of Building and Construction
1 CNS 100 Construction Science and Management Orientation
2 COMM 105 Public Speaking IA
3 ENGL 100 Expository Writing I
0 CNS 016 Construction Seminar
17

Hrs. Second semester
3 ECON 110 Principles of Macroeconomics
4 PHYS 113 General Physics I
1 CE 212 Elementary Surveying Engineering
2 CNS 320 Construction Materials
3 H/SS elective†
0 CNS 016 Construction Seminar
15

Hrs. Third semester
3 CNS 231 Statics A
4 PHYS 114 General Physics II
2 CNS 200 Computer Applications in Engineering and Construction
3 ACCTG 231 Accounting for Business Operations
3 ENGL 200 Expository Writing II
0 CNS 016 Construction Seminar
15

Professional program

Hrs. Fourth semester
3 CE 331 Strength of Materials
1 CE 332 Strength of Materials Lab
3 CNS 321 Construction Techniques and Detailing
3 CNS 330 Site Construction
3 H/SS elective†
3 H/SS elective†
0 CNS 016 Construction Seminar
15

Hrs. Fifth semester
3 CNS 522 Theory of Structures
3 CNS 325 Construction Drawings
3 CNS 536 Water Supply and Plumbing
3 CNS 534 Heat and Air Conditioning
3 STAT 350 Business and Economic Statistics
2 ARE 537 Acoustic Systems
1 ARE 310 Introduction to CAD
0 CNS 016 Construction Seminar
15

Hrs. Sixth semester
3 CNS 524 Steel Construction
3 CNS 540 Construction Methods and Equipment
3 CNS 535 Electrical Service and Installation
3 ENGL 417 Written Communication for the Workplace
3 MANGT 390 Business Law I
2 CNS 650 Construction Safety
1 CNS 542 Ethics and Professional Standards
0 CNS 016 Construction Seminar
18

Hrs. Seventh semester
2 CNS 523 Timber Construction
3 CNS 645 Construction Scheduling and Cost Control
4 CNS 641 Construction Estimating
3 CNS 642 Const Management
3 MANGT 420 Management Concepts
2 Professional elective**
0 CNS 016 Construction Seminar
17

Hrs. Eighth semester
3 CNS 528 Concrete and Masonry Construction
3 CNS 660 Construction Operations
3 CE 322 Soil and Foundation Construction
3 CNS 528 Construction Labor elective
Professional elective**
3 Management elective**
0 CNS 016 Construction Seminar
18

† Humanities and social science (H/SS) electives are to be selected from the approved catalog list of courses (see engineering course requirements at www.engg.ksu.edu/student-services/hss.pdf).

** Management electives, labor electives and professional electives are to be selected from the current approved department lists.

For more information about Kansas State University, contact:
Office of Admissions
Kansas State University
119 Anderson Hall
Manhattan, KS 66506–0102
1-800-432-8270 (toll free) or 785-532-6250
Email: k-state@k-state.edu
www.k-state.edu/admissions

For more information about construction science and management, contact:
Department of Architectural Engineering/Construction Science
Kansas State University
240 Seaton Hall
Manhattan, KS 66506–2903
785-532-5964
Fax: 785-532-3556
Email: arecns@k-state.edu
www.arecns.k-state.edu
www.engg.k-state.edu