

k-state

study guide

kansas state university

Construction Science and Management

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 approximately \$1.0 trillion (nearly 9 percent of gross domestic product). National contractors' organizations report that thousands of graduates a year find employment in the industry. And as the industry grows, so does the need for qualified, university-trained persons.

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 those 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.

You 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 a construction company owner.

The program

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

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, management, and 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 architecture, architectural engineering, civil engineering, or business administration. This usually requires extra years of study.

A cooperative education program is also available. You 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.

Accreditation

The K-State construction science and management program is accredited by the American Council for Construction Education.