College of Agriculture

# Agricultural Technology Management

## Overview

Kansas State University graduates in agricultural technology management manage people, money, natural resources and technology.

If you are interested in a career that blends management training with a knowledge of people and technical expertise, consider agricultural technology management. Graduates in this specialty area fill key positions in food and agricultural industries, serving as technical managers for these increasingly vital sectors of the economy.

Agricultural technology management prepares students for careers that require an understanding of technology and management. The goal of the program is to educate technology managers who can combine a critical understanding of agriculture and biological sciences with the problem-solving viewpoint of an engineer. The curriculum is intended for students who want a broader education than is provided by the engineering curriculum and do not desire the analytical focus necessary in an engineering degree.

## Academics

### Careers

Graduates are employed in technical management positions in food and agricultural industries that require an understanding of both technology and management in fields such as technical sales, service and management in agribusiness. The opportunities for challenging careers are unlimited.

Recent graduates have secured positions working as:

- Agricultural business managers
- Agricultural extension agents
- Agricultural loan officers
- Agricultural marketing representatives
- Agricultural machinery dealership managers
- Crop consultants
- Engineering assistants
- Farm managers
- Food processing plant supervisors
- Grain terminal operations managers
- Pesticide application specialists

**Points of pride**

Kansas State University's agricultural technology management student chapter of the American Society of Agricultural and Biological Engineers — the professional organization for engineering in agricultural, food and biological systems — has been recognized as the organization's No. 1 student chapter in the world based on an outstanding record of activities and accomplishments

### Employment

Positions are available with:

- Machinery companies
- Equipment dealers
- Agricultural service organizations
- Government agencies
- Banks
- Farms
- Companies producing and selling food, seed, grain, feed fertilizer and chemicals

### Job experience

All students are encouraged to obtain career-related summer internships. A variety of internships are available each summer with many different companies and state and federal agencies. Internships provide students an opportunity to evaluate their career direction and, in many cases, secure employment after graduation. College credit is also available with some internships.

## Academics

The Department of Biological and Agricultural Engineering offers a Bachelor of Science degree in agricultural technology management and a Bachelor of Science degree in biological systems engineering.

The curriculum of the agricultural technology management program emphasizes the application and integration of agricultural and biological sciences, agricultural engineered systems and business. Courses are designed to apply physical concepts and problem-solving to food and agriculture systems. Supporting courses provide a foundation of mathematics, chemistry, business, and computer and communication skills. Technical electives are available to develop a degree program that meets personal career objectives.

Agricultural technology management students are required to select one or more agricultural science areas of emphasis: animal sciences, agronomy, agricultural business/economics, horticulture, grain science and more. This area of emphasis will complement their degree program.

Many students integrate their degree into the completion of one or more academic minors, a secondary major in natural resources and environmental sciences, and/or a dual major degree program. The dual major degree program includes the option of majoring in agricultural technology management as well as agribusiness, agricultural economics, animal sciences, agronomy and more. Careful planning allows students to integrate one or all of these options into their degree program and still graduate in approximately four years.

### Faculty

Faculty have broad experiences in teaching, research and extension. Several faculty have acquired significant experience in business and industry. Departmental facilities include more than 30 computers and modern teaching laboratories where students are able to apply what they have learned in courses.

### Advising

Agricultural technology management students are advised by biological and agricultural engineering faculty members who are genuinely committed to teaching and serving as great advisors. They make it a point to get to know their students. With an average student-faculty ratio of 15 to 1, there is a strong emphasis on individual attention.

## Activities

### Clubs

The agricultural technology management student chapter of the American Society of Agricultural and Biological Engineers — the professional organization for engineering in agriculture, food and biological systems — offers opportunities to interact informally with other students, faculty and potential employers.

Field trips provide insight to the business world, and communication and leadership skills are enhanced through participation in these and other college and university student organizations. The ASABE at K-State has been recognized as the organization's No. 1 student chapter in the world based on an outstanding record of activities and accomplishments.

Agricultural technology management and biological systems engineering students work together each year to design, fabricate and test a quarter-scale tractor to compete in the ASABE International 1/4-Scale Tractor International Design Competition. Corporate sponsors provide a 31-horsepower engine and four competition tires. The K-State team provides the leadership, enthusiasm, knowledge and hard work to create a tractor that will pull 1,000 and 1,500 pounds, exhibit excellent maneuverability and be appealing in terms of appearance, manufacturability and economics. During the four-day competition in Peoria, Illinois, the tractor is evaluated against approximately 30 international entries through a written design report, professional presentation, and maneuverability and pull competitions. K-State's team has been named the international champion numerous times.

## Financial assistance

Agricultural technology management students are eligible for College of Agriculture scholarships as well as several others designed specifically for department majors. In addition, many students are employed on research projects within the department.

## Suggested course work

| Courses | Hrs. | Hrs. in Curriculum |
|---|---|---|
| Communications | | 14 |
| Expository Writing I | 3 | |
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| Public Speaking | 2 | |
| Electives | 6 | |
| Physical Sciences | | 14 |
| General Calculus and Linear Algebra | 3 | |
| Chemistry I | 4 | |
| General Physics I | 4 | |
| Statistics | 3 | |
| Humanities and/or Social Sciences | | 9 |
| Electives | 9 | |
| Business and Management | | 15 |
| Principles of Macroeconomics | 3 | |
| Accounting for Business Operations | 3 | |
| Management (select one course) | 3 | |
| Industrial Management | | |
| Business Law I | | |
| Management Concepts | | |
| Introduction to Management Operations | | |
| Business and Management Electives | 6 | |
| Technology | | 42 |
| Intro to Biological Agricultural Engg Technology | 1 | |
| Engineered Systems and Technology in Agriculture | 3 | |
| Chemical Application Systems | 3 | |
| Agricultural Machinery Systems | 3 | |
| Sensors and Controls for Ag and Biol. Systems | 3 | |
| Engine and Power Transfer | 3 | |
| Agric. Building Systems | 3 | |
| Processing and Storage of Grains | 3 | |
| Soil Erosion and Sediment Pollution Control | 3 | |
| Water Management and Irrigation Systems | 3 | |
| Water and Waste in the Environment | 3 | |
| Engineering Graphics | 2 | |
| Production Processes | | |
| Electives | | |
| Agricultural and Biological Sciences | | 14 |
| Principles of Biology | 3 | |
| Soils | 4 | |
| Electives | 6 | |
| Restricted Electives | 12 | |
| Select 12 semester hours from one of the following categories: | | |
| Technology | | |
| Agribusiness and Management | | |
| Biological, Natural Resource, and Environmental Sciences | | |
| Animal Sciences | | |
| Food and Feed Processing | | |
| Free electives | 3 | |
| TOTAL | | 124 |

**For more information about agricultural technology management, contact:**

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Post-Graduation Statistics
k-state.edu/postgrad-stats
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