

GRAIN SCIENCE AND INDUSTRY

Five-year starting salary average

\$50k–\$60k

\$40k
in scholarships
within the major

100%
job placement
during last five
years

KANSAS STATE | Department of
UNIVERSITY | Grain Science and Industry

PROVIDING FEED FOR THOUGHT

Kansas State University established an academic program in feed technology in 1951. Today, it remains the only program in the world offering a four-year degree in feed science and management while supporting the diverse animal feed industry.

As the needs and demands of the feed and pet food industry grow with the world population, we will grow as well, developing new technologies and business strategies while educating a new generation of graduates. We will ensure that our department, the industry and world population stay fortified and strong.

APPLY NEW KNOWLEDGE

Students spend time in the classroom learning fundamental principles, but spend nearly equal time in hands-on activities. You will begin learning basic feed science principles from our expert faculty your first semester in the program. You also will take general courses in animal nutrition, business and management.

During your time at K-State, you will cover technical topics such as grain

Feed science and management

handling, feed processing and pelleting, regulatory compliance, feed quality and safety, pet food production and extrusion. In addition, you may select specialization electives that allow you to sharpen your skills in a particular area.

You will have the first opportunity to intern with a commercial feed company in manufacturing or an affiliated industry.

This allows you to experience how laboratory and classroom knowledge translate to real-world business. Often, internships lead to full-time jobs.

K-State's feed science and management program is a great way to meet the pre-vet requirements for the K-State College of Veterinary Medicine.

TOPPING THE FEED CHAIN

With a degree in feed science, you are likely to receive multiple job offers with high starting salaries. Each year, a variety of companies visit campus to interview our students for exciting careers. These companies include feed and food producers, pet food manufacturers, various feed ingredient suppliers, equipment manufacturers and affiliated industry.

Depending on your interests and strengths, you may choose a more technical-centered starting position.

Technical positions include:

- Production line supervisor
- Quality control supervisor
- Feed mill manager
- Laboratory analysis
- Purchasing
- Sales and marketing

FACILITIES

K-State houses a number of laboratories in which you will apply classroom learning, including a full-scale feed mill, extrusion processing center and quality assurance laboratory.

The O.H. Kruse Feed Technology Innovation Center, provides invaluable training opportunities for students while producing feed products for university farms.

FEED SCIENCE CLUB

K-State's feed science club manufactures and sells specialty animal feeds as well as organizes social events and discussion forums that help students find career opportunities. The club tours companies and facilities across the Midwest and members attend industry expos.

SUGGESTED COURSE WORK

FRESHMAN

HRS. FALL SEMESTER

4	BIOL 198	Principles of Biology
3	ENGL 100	Expository Writing I
1	GRSC 100	Grain Science Orientation
3	GRSC 101	Introduction to Grain Science
3	Social Science/Humanities Electives	
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HRS. SPRING SEMESTER

4	CHM 210	Chemistry I
2	COMM 105	Public Speaking IA
3	ECON 110	Principles of Macroeconomics
2	GRSC 150	Principles of Milling
1	GRSC 151	Principles of Milling Lab
3	MATH 205	General Calculus and Linear Algebra
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SOPHOMORE

HRS. FALL SEMESTER

3	AGEC 120	Agricultural Economics and Agribusiness
4	CHM 230	Chemistry II
3	ENGL 200	Expository Writing II
3	GRSC 210	CAD Flow Sheets for Grain Processes
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4	PHYS 113	General Physics I
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HRS. SPRING SEMESTER

5	BIOCH 265	Introductory Organic and Biochemistry
or		
3	CHM 350	General Organic Chemistry and
2	CHM 351	General Organic Chemistry Laboratory
3	GRSC 310	Materials Handling
4	PHYS 114	General Physics II
3	STAT 325	Intro to Statistics
3	Social science electives	
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JUNIOR

HRS. FALL SEMESTER

3	ACCTG 231	Accounting for Business Operations
4	BIOL 455	General Microbiology
3	GRSC 510	Feed Technology I
1	GRSC 511	Feed Technology I Lab
3	ENGL 516	Written Communication for Science
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3	Option A, B or C	
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HRS. SPRING SEMESTER

4	GRSC 651	Food and Feed Product Production
3	GRSC 661	Qualities of Food and Feed Ingredients
3	GRSC 688	Feed Technology II
1	GRSC 689	Feed Technology II Lab
3	ASI 318	Fund of Nutrition
3	Option A, B or C	
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SENIOR

HRS. FALL SEMESTER

2	GRSC 591	Internship
3	GRSC 630	Management Applications in the Grain Processing Industry
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3	Free elective	
6	Option A, B or C	
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HRS. SPRING SEMESTER

3	GRSC 610	Electricity and Its Control for the Grain Processing Industry
3	GRSC 655	Cereal Food Plant Design and Construction
3	Free elective	
6	Option A, B or C	
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OPTION A: FEED PRODUCTION

Required courses (7 hours) plus 11 hours from specialization electives list.

HRS. COURSES

3	ACEC 420	Commodity Futures Marketing
4	GRSC 620	Extrusion Processing in the Food and Feed Industries
11	Specialization electives	

OPTION B: BIOFUELS PRODUCTION

Required courses (13 hours) plus five hours from specialization electives list.

HRS. COURSES

3	ACEC 420	Commodity Futures Marketing
3	ATM 545	Processing and Storage of Grains
3	GRSC 540	Engineering Applications to Grain/Food Products
1	GRSC 541	Engineering Applications to Grain/Food Products Lab
3	GRSC 745	Fundamentals of Bioprocessing
5	Specialization electives	

OPTION C: PET FOOD PRODUCTION

Required courses (11 hours) plus seven hours from specialization electives list.

HRS. COURSES

3	ASI 520	Companion Animal Management
4	GRSC 620	Extrusion Processing in the Food and Feed Industries
3	GRSC 645	Pet Food Processing
1	GRSC 646	Pet Food Processing Lab
7	Specialization electives	

SPECIALIZATION ELECTIVES

HRS. COURSES

3	ACCTG 241	Accounting Investment and Finance
4	ACCTG 331	Processes and Controls
3	AGEC 410	Agricultural Policy
3	AGEC 515	Food & Agric Business Marketing
3	AGEC 632	Agri Business Logistics
3	ASI 320	Principles of Feeding
3	ASI 500	Genetics
3	BIOCH 521	General Bio-Chemistry
3	ECON 631	Principles of Transportation
3	FINAC 450	Principles of Finance
0-3	GRSC 499	Undergraduate Research in Grain Science
1-3	GRSC 590	Grain Science Problems
1-3	GRSC 691	Faculty-Led Study Abroad
3	IMSE 501	Industrial Management
3	MANGT 390	Business Law I
3	MANGT 420	Management Concepts
3	MANGT 530	Industrial and Labor Relations
3	MANGT 531	HR Management

MINOR IN FEED SCIENCE

Grain science majors cannot use courses required in their major as part of the feed science minor.

HRS. COURSES

3	GRSC 101	Introduction to Grain Science and Industry
3	GRSC 510	Feed Technology I
1	GRSC 511	Feed Technology I Lab
3	GRSC 688	Feed Technology II
1	GRSC 689	Feed Technology II Lab
3	GRSC 661	Quality of Feed Ingredients
3	GRSC 630	Management Applications in the Grain Processing Industry
or		
3	GRSC 310	Material Handling
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For more information about feed science, contact:

Brenda Heptig, Academic Programs Support Coordinator

Department of Grain Science and Industry
Kansas State University
203 Shellenberger Hall
Manhattan, KS 66506-2201
785-532-4051
grains@k-state.edu
grains.k-state.edu

For more information about Kansas State University, contact:

Office of Admissions
Kansas State University
119 Anderson Hall
Manhattan, KS 66506-0102
800-432-8270 (toll free) or
785-532-6250
k-state@k-state.edu
k-state.edu/admissions

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