

Food Science

www.ag.ndsu.edu/foodscience

Food Science Major

The Food Science major is offered through the Department of Plant Sciences in the College of Agriculture, Food Systems, and Natural Resources. It is designed to prepare students for a career in the food industry, the "world's largest industry," which is responsible for feeding the world.

The program is structured to develop an understanding of the nature, properties, and characteristics of foods through foundation courses in biochemistry, chemistry, microbiology, physics, and other related sciences. Applications include the study of food safety, processing, preservation, sanitation, storage, and marketing of foods. The analysis and microbiological and biochemical characterization of food products are also studied. Additionally, elective courses in economics and business administration are available to students intending to enter a management career.

Note: *Transfer credits in food science from other institutions must have grades of 'C' or better to be accepted for the food science program at NDSU. The Institute of Food Technologists (IFT) approves the curriculum in the food science program. Students majoring in food science, therefore, are eligible to compete for the prestigious IFT scholarships.*

The program also provides the opportunity to gain industrial experience during undergraduate study by means of industry internships. Upon completion of the program, graduates will be able to recognize, critically analyze, and solve problems realistically in both industrial and academic environments.

Major Requirements

Major: Food Science

Degree Type: B.S.

Required Degree Credits to Graduate: 128

General Education Requirements

First Year Experience (F):

AGRI 189	Skills for Academic Success (Students transferring in 24 or more credits do not need to take AGRI 189.)	1
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Communication (C):

ENGL 110	College Composition I	3
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ENGL 120	College Composition II	3
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One Course Upper Level Writing: Select one of the following:		3
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ENGL 320	Business and Professional Writing	
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ENGL 321	Writing in the Technical Professions	
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ENGL 324	Writing in the Sciences	
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COMM 110	Fundamentals of Public Speaking	3
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Quantitative Reasoning (R):

STAT 330	Introductory Statistics	3
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Science & Technology (S):

CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4
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CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
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CSCI 114	Microcomputer Packages	3-4
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or CSCI 116	Business Use of Computers	
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Humanities & Fine Arts (A): Select from current general education list		6
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Social & Behavioral Sciences (B):

ECON 201	Principles of Microeconomics	3
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Select one course from the current general education list		3
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Wellness (W):

HNES 250	Nutrition Science	3
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Cultural Diversity (D): Select from current general education list		
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Global Perspectives (G):		
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ECON 201	Principles of Microeconomics	3
Total Credits		42

Major Requirements

General Education Requirements		40
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Required Core Courses for Food Science

AGRI 150	Agriculture Orientation (Students transferring in 24 or more credits do not need to take AGRI 150.)	1
ABEN 263	Biological Materials Processing	3
ANSC 340	Principles of Meat Science	3
CFS 210 or CFS 200	Introduction to Food Science and Technology Introduction to Food Systems	2-3
CFS 370	Food Processing I	3
CFS 450	Cereal Technology	3
MICR 453	Food Microbiology	3
CFS 460	Food Chemistry	3
CFS 461	Food Chemistry Laboratory	1
CFS 464	Food Analysis	3
CFS 470	Food Processing II	3
CFS 471	Food Processing Laboratory	1
CFS 474	Sensory Science of Foods	2
CFS 480	Food Product Development (Capstone)	3
SAFE/CFS/AGEC 452	Food Laws and Regulations	3

Supporting Courses

Select one of the following:		4
BIOC 260	Elements of Biochemistry	
BIOC 460 & 460L	Foundations of Biochemistry and Molecular Biology I and Foundations of Biochemistry I Laboratory	
BIOL 150	General Biology I	3
CHEM 341 & 341L	Organic Chemistry I and Organic Chemistry I Laboratory	4
MATH 146 or MATH 165	Applied Calculus I Calculus I	4
MICR 350 & 350L	General Microbiology and General Microbiology Lab	5
PHYS 211 & 211L	College Physics I and College Physics I Laboratory	4

Degree Requirements: Potential for a minimum of 25 credits (24 if CFS 200 was taken) to reach 128.	25
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Total Credits	128-129
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Degree Requirements and Notes:

- A 2.00 cumulative GPA is required for graduation and to remain in program.