

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

#### 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
CSCI 114 or CSCI 116	Microcomputer Packages Business Use of Computers	3-4

**Humanities & Fine Arts (A): Select from current general education list** 6

#### Social & Behavioral Sciences (B):

ECON 201	Principles of Microeconomics	3
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Select one course from the current general education list 3

#### Wellness (W):

HNES 250	Nutrition Science	3
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**Cultural Diversity (D): Select from current general education list**

#### Global Perspectives (G):

ECON 201	Principles of Microeconomics	3
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Total Credits 41

## Major Requirements

**General Education Requirements** 40

### 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	Introduction to Food Science and Technology	2
CFS 370	Food Processing I	3
CFS 450	Cereal Technology	3
CFS/MICR 453		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/SAFE 652/CFS/AGEC 652	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 26 credits to reach 128.** 26

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Total Credits 128

**Degree Requirements and Notes:**

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