

# CULINARY FOOD SCIENCE (HSCI)

The Culinary Food Science degree program is a food science-based degree in which students develop basic culinary skills along with knowledge of the accompanying sciences. As a graduate, you'll combine food product development skills and entrepreneurial talents with scientific and technological knowledge.

The department also offers a culinary food science minor (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>).

## Student Learning Outcomes

Upon graduation, students should be able to:

- Communicate effectively in their field of study using written, oral, visual and/or electronic forms.
- Demonstrate proficiency in ethical data collection and interpretation, literature review and citation, critical thinking and problem solving.
- Participate effectively in a group or team.
- Integrate creativity, innovation, or entrepreneurship in ways that produce value.
- Describe sociocultural competence relative to diversity, equity and/or inclusion.
- Explain how human activities impact the natural environment and how societies are affected.
- Meet program specific learning outcomes for the Culinary Food Science major.

## Degree Requirements

Administered by the Department of Food Science and Human Nutrition

### Total Degree Requirement: 120 cr.

Students must fulfill International Perspectives and U.S. Diversity requirements by selecting coursework from approved lists. These courses may also be used to fulfill other area requirements. Only 65 cr. from a two-year institution may apply to the degree which may include up to 16 technical cr.; 9 P-NP cr. of electives; 2.00 minimum GPA.

#### International Perspectives: 3 cr.

#### U.S. Diversity: 3 cr.

#### Communications and Library: 10 cr.

ENGL 1500	Critical Thinking and Communication	3
ENGL 2500	Written, Oral, Visual, and Electronic Composition	3
LIB 1600	Introduction to College Level Research	1
SPCM 2120	Fundamentals of Public Speaking	3

**Total Credits** 10

#### Humanities and Social Sciences: 9-15 cr.

FSHN 2200	American Food and Culture	3
ECON 1010	Principles of Microeconomics	3

If a Culinary Food Science student in the College of Human Sciences, select:

- Additional Humanities course
- Additional Humanities or Social Science course

#### Ethics: 3 cr. (Included as part of the Humanities and Social sciences requirement)

FSHN 3420	World Food Issues: Past and Present	3
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#### Mathematical Sciences: 6-8 cr.

Select at least 3 credits from: 3-4

MATH 1400	College Algebra
MATH 1430	Preparation for Calculus
MATH 1600	Survey of Calculus
MATH 1650	Calculus I

Select at least 3 credits from: 3-4

STAT 1010	Principles of Statistics
STAT 1040	Introduction to Statistics

**Total Credits** 6-8

#### Physical Sciences: 9 cr.

CHEM 1630	College Chemistry	4
or CHEM 1770	General Chemistry I	

CHEM 1630L	Laboratory in College Chemistry	1
or CHEM 1770L	Laboratory in General Chemistry I	

CHEM 2310	Elementary Organic Chemistry	3
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CHEM 2310L	Laboratory in Elementary Organic Chemistry	1
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**Total Credits** 9

#### Biological Sciences: 10-11 cr.

BBMB 3010	Survey of Biochemistry	3
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BIOL 2120	Principles of Biology II	3
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BIOL 2120L	Principles of Biology Laboratory II	1
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MICRO 2010	Introduction to Microbiology	2-3
or MICRO 3020	Biology of Microorganisms	

MICRO 2010L	Introductory Microbiology Laboratory	1
or MICRO 3020L	Microbiology Laboratory	

**Total Credits** 10-11

#### Animal Science Coursework: 6 cr.

ANS 2700	Foods of Animal Origin	2
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ANS 2700L	Foods of Animal Origin Laboratory	1
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ANS 4600	Science and Technology of Value Added Meat Products	3
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**Total Credits** **6**

**Food Science and Human Nutrition: 42 cr.**

FSHN 1010	Food and the Consumer	3
FSHN 1040	Introduction to Professional Skills in Culinary Science	1
FSHN 1100	Professional and Educational Preparation	1
FSHN 1670	Introductory Human Nutrition and Health	3
FSHN 2030	Contemporary Issues in Food Science and Human Nutrition	1
FSHN 2140	Scientific Study of Food	3
FSHN 2150	Advanced Food Preparation Laboratory	2
FSHN 2650	Nutrition for Active and Healthy Lifestyles	3
FSHN 3050	Food Quality Management and Control	2
FSHN 3110	Food Chemistry	3
FSHN 3110L	Food Chemistry Laboratory	1
FSHN 3140	Professional Development for Culinary Food Science and Food Science Majors	1
FSHN 4030	Food Laws and Regulations	2
FSHN 4060	Sensory Evaluation of Food	3
FSHN 4070	Microbiological Safety of Foods of Animal Origins	3
FSHN 4110	Food Ingredient Interactions and Formulations	2
FSHN 4120	Food Product Development	3
FSHN 4200	Food Microbiology	3
Take one of the following courses for 2 credits:		2
FSHN 4910B	Supervised Work Experience: Food Science or FSHN 491 Supervised Work Experience: Culinary Science	

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**Total Credits** **42**

**Hospitality Management: 12 cr.**

HSPM 1330	Food Safety Certification	1
HSPM 3800	Food Production Management	3
HSPM 3800L	Food Production Management Experience	3
HSPM 3830	Wine and Spirits in Hospitality Management	2
or FSHN 5090	Sensory Evaluation of Wines	
HSPM 4870	Fine Dining Management	3

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**Total Credits** **12**

**Electives 1-13 cr. Select from any university coursework to earn at least 120 total credits.**

Go to FSHN courses. ([http://catalog.iastate.edu/azcourses/fs\\_hn/](http://catalog.iastate.edu/azcourses/fs_hn/))

**Culinary Food Science, B.S.**

**First Year**

Fall	Credits	Spring	Credits
FSHN 1100	1	FSHN 1040	1
CHEM 1630	4	FSHN 1670	3
or 1770			
CHEM 1630L	1	BIOL 2120	3
or 1770L			
FSHN 1010	3	BIOL 2120L	1
MATH 1400,	3-4	ECON 1010	3
1430, 1600,			
or 1650			
ENGL 1500	3	STAT 1040	3-4
		or 1010	
LIB 1600	1		

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**16-17**

**14-15**

**Second Year**

Fall	Credits	Spring	Credits
CHEM 2310	3	FSHN 2650	3
CHEM 2310L	1	BBMB 3010	3
ENGL 2500	3	MICRO 2010	2-3
		or 3020	
FSHN 2030	1	MICRO 2010L	1
		or 3020L	
FSHN 2200	3	FSHN 2140	3
HSPM 1330	1	FSHN 2150	2
SPCM 2120	3		

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**15**

**14-15**

**Third Year**

Fall	Credits	Spring	Credits	Summer	Credits
ANS 2700	2	FSHN 3050	2	FSHN 4910B	2
				or 4910D	
ANS 2700L	1	FSHN 4030	2		
FSHN 3110	3	HSPM 3800	3		
FSHN 3110L	1	HSPM 3800L	3		
FSHN 3140	1	Humanities	3		
		or social science (HSCI) or elective (AGLS)			
FSHN 4110	2	Elective*	3		
FSHN 4200	3				

Electives *	1-3		
	<b>14-16</b>	<b>16</b>	<b>2</b>
<b>Fourth Year</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
FSHN 4060		3 ANS 4600	3
FSHN 4070		3 FSHN 3420	3
FSHN 4910B or 4910D (if not yet completed)		2 FSHN 4120	3
HSPM 3830 (if not taking FSHN 5090 Spring)		2 Humanities (HSCI) or Elective (AGLS)	3
HSPM 4870 U.S. Diversity		3 Elective *	3
	<b>16</b>	<b>15</b>	

\* Choose elective courses to total equal to or greater than 120 credits.  
 Planned course offerings may change and students need to check the online Schedule of Classes each term to confirm course offerings: <https://classes.iastate.edu> (<https://classes.iastate.edu>). This sequence is only an example. The number of credits taken each semester should be based on the individual student's situation. Factors that may affect credit hours per semester include student ability, employment, health, activities, and grade point consideration.

More information on the Culinary Food Science minor can be found here: [www.catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext](http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext) (<http://catalog.iastate.edu/collegeofagricultureandlifesciences/foodscienceandhumannutrition/#undergraduateminortext>).