## Food Science (AGLS)

## Curriculum in Food Science

Administered by the Department of Food Science and Human Nutrition Students select one of the following options and complete all requirements for that option: food science and technology option, food science and industry option, or consumer food science option. Courses listed below are required for all of the options, except where specified by option below.

## 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: 13 cr .

| ENGL 150 | Critical Thinking and Communication | 3 |
| :--- | :--- | :--- |
| ENGL 250 | Written, Oral, Visual, and Electronic Composition | 3 |
| LIB 160 | Information Literacy | 1 |
| SP CM 212 | Fundamentals of Public Speaking | 3 |
| TSM 115 | Solving Technology Problems | 3 |

Total Credits 13
Humanities and Social Sciences: 6-12 cr.
Select Humanities course from approved list
ECON 101 Principles of Microeconomics 3

If H Sci student, select:
Additional Humanities course
Additional Humanities or Social Science course
Ethics and Environmental: 3-6 cr.

| FS HN $342 \quad$ World Food Issues: Past and Present | 3 |
| :--- | ---: | ---: |
| If AgLS student, select from: | $2-3$ |

ENV S 120 Introduction to Renewable Resources
ENV S 201 Introduction to Environmental Issues
Mathematical Sciences: 7-12 cr.
Food science and technology option:

| Select from: |  | 8 |
| :---: | :---: | :---: |
| MATH 165 \& MATH 166 | Calculus I and Calculus II |  |
| or |  |  |
| MATH 181 \& MATH 182 | Calculus and Mathematical Modeling for the Life Sciences I and Calculus and Mathematical Modeling for the Life Sciences II |  |
| Select from: |  | 3-4 |
| STAT 101 | Principles of Statistics |  |
| STAT 104 | Introduction to Statistics |  |
| STAT 105 | Introduction to Statistics for Engineers |  |
| Total Credits |  | 11-12 |

## Food science and industry option, and consumer food science option:

| Select from: |  | 4 |
| ---: | :--- | ---: |
| MATH 160 | Survey of Calculus |  |
| MATH 165 | Calculus I |  |
| MATH 181 | Calculus and Mathematical Modeling for the Life <br> Sciences I | 3-4 |
| Select from: | Principles of Statistics |  |
| STAT 101 | Introduction to Statistics |  |


| STAT 105 |  | Introduction to Statistics for Engineers |
| :--- | :--- | ---: |
| Total Credits |  | $7-8$ |
| Physical Sciences: $\mathbf{1 3 - 2 5}$ cr. |  |  |
| FOOd science and technology option: |  |  |
| CHEM 177 | General Chemistry I | 4 |
| CHEM 177L | Laboratory in General Chemistry I | 1 |
| CHEM 178 | General Chemistry II | 3 |
| CHEM 331 | Organic Chemistry I | 3 |
| CHEM 331L | Laboratory in Organic Chemistry I | 1 |
| CHEM 332 | Organic Chemistry II | 3 |
| PHYS 111 | General Physics | 5 |
| PHYS 112 | General Physics | 5 |
| Total Credits |  | 25 |

## Food science and industry option, and consumer food science option:

| Select from: |  | 5-8 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CHEM } 163 \\ & \& 163 \mathrm{~L} \end{aligned}$ | College Chemistry and Laboratory in College Chemistry |  |
| CHEM 177 <br> \& 177L <br> \& CHEM 178 | General Chemistry I and Laboratory in General Chemistry I and General Chemistry II |  |
| CHEM 231 | Elementary Organic Chemistry | 3 |
| CHEM 231L | Laboratory in Elementary Organic Chemistry | 1 |
| PHYS 106, 111, or 115 |  | 4-5 |
| Total Credits |  | 13-17 |
| Biological Sciences: 12-13 cr. |  |  |
| Food science and technology option: |  |  |
| BBMB 301 | Survey of Biochemistry | 3 |
| BIOL 211 | Principles of Biology I | 3 |
| BIOL 212 | Principles of Biology II | 3 |
| MICRO 302 | Biology of Microorganisms | 3 |
| MICRO 302L | Microbiology Laboratory | 1 |
| Total Credits |  | 13 |

## Food science and industry option, and consumer food science option:

BIOL 211 Principles of Biology I
BIOL $212 \quad$ Principles of Biology II
Select from:
Principles of Biology II
3
Select from.

Introduction to Microbiology
MICRO 302 Biology of Microorganisms
Select from:

| MICRO 201L | Introductory Microbiology Laboratory |
| :--- | :--- |
| MICRO 302L | Microbiology Laboratory |

Total Credits
Food Science and Human Nutrition: 43-44 cr.

| FS HN 101 | Food and the Consumer | 3 |
| :--- | :--- | :--- |
| FS HN 110 | Professional and Educational Preparation | 1 |
| FS HN 167 | Introduction to Human Nutrition | 3 |
| FS HN 203 | Contemporary Issues in Food Science and Human <br>  <br>  <br> Nutrition | 1 |
| FS HN 311 | Food Chemistry | 3 |
| FS HN 311L | Food Chemistry Laboratory | 1 |
| FS HN 351 | Introduction to Food Engineering Concepts | 3 |
| FS HN 403 | Food Laws, Regulations, and the Regulatory Process | 2 |
| FS HN 405 | Food Quality Assurance | 3 |
| FS HN 406 | Sensory Evaluation of Food | 3 |
| FS HN 410 | Food Analysis | 3 |


| FS HN 411 | Food Ingredient Interactions and Formulations | 2 |
| :--- | :--- | :--- |
| FS HN 412 | Food Product Development | 3 |
| FS HN 420 | Food Microbiology | 3 |
| FS HN 471 | Food Processing I | 3 |
| FS HN 480 | Professional Communication in Food Science and <br> $\quad$Human Nutrition | 1 |

Food science and technology option, and food science and industry option:

| FS HN 421 | Food Microbiology Laboratory | 3 |
| :--- | :--- | :--- |
| FS HN 472 | Food Processing II | 3 |

## Consumer food science option:

| Select at least 5-6 cr from: | $5-6$ |  |
| :--- | :--- | :--- |
| FS HN 214 | Scientific Study of Food |  |
| \& FS HN 215 | and Advanced Food Preparation Laboratory |  |
| FS HN 265 | Nutrition for Active and Healthy Lifestyles |  |
| FS HN 421 | Food Microbiology Laboratory |  |
| FS HN 472 | Food Processing II |  |

Electives: 3-19 cr. Select from any university coursework to earn at least 120 total credits.
Go to FS HN courses.

