



Cornell Institute of Food Science

Bachelor of Science Program in Food Science

Food Safety Option

Curriculum Outline

Freshman Year

| <i>Fall Semester</i> | <i>Credits</i> | <i>Spring Semester</i> | <i>Credits</i> |
|-------------------------------|----------------|--|----------------|
| FDSC 1101 Sci & Tech of Foods | 1 | FDSC 1102 Leadership & Career Skills in FS | 2 |
| CHEM 2070 General Chemistry | 4 | CHEM 2080 General Chemistry | 4 |
| MATH 1110* Calculus | 4 | MATH 1120* Calculus | 4 |
| BIOG ** Biology | 3 | BIOG ** Biology | 3 |
| Freshman Writing Seminar | 3 | Freshman Writing Seminar | 3 |
| | (15) | | (16) |

Sophomore Year

| <i>Fall Semester</i> | <i>Credits</i> | <i>Spring Semester</i> | <i>Credits</i> |
|------------------------------|----------------|-------------------------------------|----------------|
| FDSC 2000 Intro Food Science | 3 | FDSC 2100 Food Analysis | 3 |
| PHYS 1101* General Physics | 4 | BIOMI 2900 General Microbiology Lec | 3 |
| NS 1150 Nutrition and Health | 3 | BIOMI 2910 Gen Microbiology Lab | 2 |
| CHEM 3570 Organic Chemistry | 3 | CHEM 3580 Organic Chemistry | 3 |
| ***Soc Science or Humanities | 3 | ***Soc Science or Humanities | 3 |
| | (16) | | (14) |

Junior Year

| <i>Fall Semester</i> | <i>Credits</i> | <i>Spring Semester</i> | <i>Credits</i> |
|---------------------------------------|----------------|------------------------------------|----------------|
| FDSC 4210 Food Engineering Principles | 3 | FDSC 4170 Food Chemistry I | 3 |
| FDSC 3940 Food Microbiology Lecture | 3 | Oral Expression **** | 3 |
| FDSC 3950 Food Microbiology Lab | 2 | BIOMS 4040 Pathogenic Bacteriology | 3 |
| BIOMI 4090 Principles of Virology | 3 | Statistics***** | 4 |
| ***Soc Sci, Humanities or Electives | 3 | ***Soc Sci, Humanities or Elective | 3 |
| | (14) | | (16) |

Senior Year

| <i>Fall Semester</i> | <i>Credits</i> | <i>Spring Semester</i> | <i>Credits</i> |
|---------------------------------------|----------------|--|----------------|
| FDSC 4100 Sensory Evaluation | 3 | FDSC 4000 Capstone Project in Food Sci | 2 |
| FDSC 4180 Food Chemistry II | 3 | FDSC 3960 Food Safety Assurance | 2 |
| VTPMD 6640 Intro to Epidemiology | 3 | FDSC 4250 Unit Operations & Dairy Foods Processing | 3 |
| *****BIOMI 6100 - Introduction to | | | |
| Chemical and Environmental Toxicology | 3 | TOX 4970 Risk Analysis & Management | 3 |
| **Soc Sci, Humanities, or Electives | 3 | **Soc Sci, Humanities, and Electives | 6 |
| | (15) | | (17) |

Requirements/ Recommendations

* Engineering Math 1910-1920 can be substituted for Math 1110-1120, and Calculus based Physics 2207 can be substituted for Physics 1101 for students interested in Food Process Engineering.

** BIO courses suggested BIOG 1140, 1440 or 1500; BIOEE 1610 or 1780; BIOAP 1100; PLBIO 2410; PLHRT 1115

*** Suggested electives: BIOPL 1120 – Issues in Social Biology: from Diet to Diseases, DNA to Deforestation; BIOMI 3210 – Normal Microbes in Health and Disease; PAM 3280 - Fundamentals of Population Health

**** Oral expressions suggested courses: COMM 2010, ILRLR 3300

***** Statistic courses suggested: AEM 2100; STSCI 2100, 2150 or 2200; MATH 1710; PSYCH 3500

***** BIOMI 6100 is taught every other year. Make adjustments to your schedule as needed.