# University Core and Graduation Requirements

<table>
<thead>
<tr>
<th>University Core Requirements:</th>
<th>Suggested Sequence of Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Core Requirements:</strong></td>
<td><strong>FRESHMAN YEAR</strong></td>
</tr>
<tr>
<td><strong>Religion Cornerstones</strong></td>
<td><strong>JUNIOR YEAR</strong></td>
</tr>
<tr>
<td>Teachings and Doctrine of The Book of Mormon</td>
<td>1st Semester</td>
</tr>
<tr>
<td>Jesus Christ and the Everlasting Gospel</td>
<td>CHEM 105 (FWSpSu)</td>
</tr>
<tr>
<td>Foundations of the Restoration</td>
<td>First Year Writing or American Heritage</td>
</tr>
<tr>
<td>The Eternal Family</td>
<td>Qualitative Reasoning (if needed)</td>
</tr>
<tr>
<td><strong>The Individual and Society</strong></td>
<td>NDFS 100 (FWSu)</td>
</tr>
<tr>
<td>American Heritage</td>
<td>PHSCS 105 (FWSp)</td>
</tr>
<tr>
<td>Global and Cultural Awareness</td>
<td>Religion Cornerstone course</td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td>Total Hours</td>
</tr>
<tr>
<td>First Year Writing</td>
<td>The following semester recommendations are for the Food Science</td>
</tr>
<tr>
<td>Advanced Written and Oral Communications</td>
<td>Technical Track</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>First-year Writing or American Heritage</td>
</tr>
<tr>
<td>Languages of Learning (Math or Language)</td>
<td>CHEM 106, 107 (FWSpSu)</td>
</tr>
<tr>
<td><strong>Arts, Letters, and Sciences</strong></td>
<td>NDFS 100 (FWSu)</td>
</tr>
<tr>
<td>Civilization 1</td>
<td>PHSCS 105 (FWSp)</td>
</tr>
<tr>
<td>Civilization 2</td>
<td>Religion Cornerstone course</td>
</tr>
<tr>
<td>Arts</td>
<td>Total Hours</td>
</tr>
<tr>
<td>Letters</td>
<td><strong>SOPHOMORE YEAR</strong></td>
</tr>
<tr>
<td>Biological Science</td>
<td><strong>3rd Semester</strong></td>
</tr>
<tr>
<td>Physical Science</td>
<td>CHEM 351 (FWSp)</td>
</tr>
<tr>
<td><strong>Core Enrichment: Electives</strong></td>
<td>NDFS 200 (FWSp)</td>
</tr>
<tr>
<td>Religion Electives</td>
<td>NDFS 250 (FWSp)</td>
</tr>
<tr>
<td>Open Electives</td>
<td>NDFS 251 (FWSp)</td>
</tr>
<tr>
<td><strong>Graduation Requirements:</strong></td>
<td>PHSCS 106 (FWSu)</td>
</tr>
<tr>
<td>Minimum residence hours required</td>
<td>Religion Cornerstone Course</td>
</tr>
<tr>
<td>Minimum hours needed to graduate</td>
<td>Total Hours</td>
</tr>
<tr>
<td>30.0</td>
<td><strong>4th Semester</strong></td>
</tr>
<tr>
<td>120.0</td>
<td>CHEM 352 (FWSpSu)</td>
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<tr>
<td></td>
<td>CHEM 353 (FWSpSu)</td>
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<td></td>
<td>MMBIO 221 (FWSpSu) (Biology Science)</td>
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<td></td>
<td>MMBIO 222 (FWSpSu)</td>
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<td></td>
<td>Religion Cornerstone Course</td>
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<tr>
<td></td>
<td>STAT 121</td>
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<tr>
<td></td>
<td>STDEV 150</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
</tr>
</tbody>
</table>

**Note:** Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.
**BS in Food Science (284320)**
**2017-2018 Program Requirements (66 - 68 Credit Hours)**

Consult with a faculty advisor prior to finalizing your curriculum plan.

**REQUIREMENT 1** Complete 14 courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS M 488</td>
<td>Agribusiness Management 1</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS M 489</td>
<td>Agribusiness Management 2</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 285</td>
<td>Introductory Bio-organic Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>ECON 110</td>
<td>Economic Principles and Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Principles of Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>NDFS 399R</td>
<td>Academic Internship</td>
<td>9.0v</td>
</tr>
<tr>
<td>ORG B 320</td>
<td>Organizational Effectiveness</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**GROUP 2.2.2** Complete 1 course

- BUS M 371R - Entrepreneurship Lecture Series
  - You may take this course up to 1 time.
- BUS M 380 - Executive Lectures
  - You may take this course up to 1 time.
- BUS M 382 - Technology Entrepreneurship Lecture Series

**GROUP 2.2.3** Complete 1 course

- BUS M 372 - Basic Entrepreneurship Skills
- NDFS 200 - Nutrient Metabolism
- NDFS 450 - Food Chemistry
- NDFS 465 - Food Product Development

**REQUIREMENT 3**

**DURING THE JUNIOR YEAR OR UPON DECLARING FOOD SCIENCE AS A MAJOR,** STUDENTS ARE STRONGLY ENCOURAGED TO SELECT ONE OF THE FOLLOWING OPTIONS TO ENHANCE CAREER PREPARATION (STUDENTS IN FOOD INDUSTRY MANAGEMENT TRACK MUST TAKE 1 CREDIT HOUR OF NDFS 399R TO GRADUATE):

- **A.** Choose a research topic and faculty mentor. Working in a research laboratory for 10-20 hours per week over the course of eight months, the student will have daily contact with graduate students, technicians, and fellow undergraduate colleagues and frequent interactions with a faculty mentor. Student research often leads to participation in a publication and/or a presentation at a professional meeting. NDFS 494R credit is available.

- **B.** Produce a senior thesis in collaboration with a faculty mentor, derived from research. The thesis is written in the format of a scientific review paper. NDFS 494R credit is available.

- **C.** Work in an approved, faculty-supervised summer internship with a food company. The internship (generally the internship does not include study abroad). NDFS 399R credit is available.

**RECOMMENDED** Complete 13 courses

**A. FOOD SCIENCE TECHNICAL TRACK - RECOMMENDED COURSES (CONSULT WITH A FACULTY ADVISOR BEFORE SELECTING):**

- BUS M 488 | Agribusiness Management 1 | 3.0 |
- BUS M 489 | Agribusiness Management 2 | 3.0 |
- CHEM 285 | Introductory Bio-organic Chemistry | 4.0 |
- ECON 110 | Economic Principles and Problems | 3.0 |
- FIN 201 | Principles of Finance | 3.0 |
- NDFS 399R | Academic Internship | 9.0v |
- ORG B 320 | Organizational Effectiveness | 3.0 |

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- NDFS 200 - Nutrient Metabolism
- NDFS 450 - Food Chemistry
- NDFS 465 - Food Product Development

**RECOMMENDED** Complete 2 options

**B. FOOD INDUSTRY MANAGEMENT TRACK - RECOMMENDED COURSES (CONSULT WITH A FACULTY ADVISOR BEFORE SELECTING):**

- BUS M 372 | Entrepreneurship Lecture Series | 1.0v |
- BUS M 380 | Executive Lectures | 1.0v |
- BUS M 382 | Technology Entrepreneurship Lecture Series | 1.0v |

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**A. FOOD SCIENCE TECHNICAL TRACK - RECOMMENDED COURSES (CONSULT WITH A FACULTY ADVISOR BEFORE SELECTING):**

THE DISCIPLINE:

Food Science is the multidisciplinary study of food and the application of knowledge thus gained to developing food products and processes, preserving and storing food, and assuring food safety and quality. Food science addresses the conversion of raw agricultural products into a nutritious, convenient, and economical food supply. Most of the food products available in grocery stores were developed, produced and tested by food scientists. Students graduating in Food Science are well prepared for immediate employment in the food industry. The technical track curriculum also provides excellent preparation as a premedical, preental or other preprofessional major. With one additional credit hour, students graduating in
**BS in Food Science (284320)**
**2017-2018**

<table>
<thead>
<tr>
<th>Major</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
</table>
| Food Science | Food Ingredient technical salesperson | Contacts industrial customers or potential users of food ingredients. Provides technical insight and assistance. Extends the company’s products among consuming companies. 
Basic research scientist | Conducts basic and applied food research. Works in industry, academia, or government. (See faculty advisor for additional career choices.) |

**FINANCING:**
Scholarships are available from the department, the college, and IFT. University and federal sources of scholarships and financing are also available. Many students work part time to help with finances. Research opportunities and summer work are available for most students. Work in the department as research or teaching assistants is available for some qualified students.

**MAP DISCLAIMER**
While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.

**DEPARTMENT INFORMATION**
Nutrition, Dietetics, and Food Science  
Brigham Young University  
S-221 Eyring Science Center  
Provo, UT 84602  
Telephone: (801) 422-3912  
FAX: (801) 422-0258  
E-Mail: frost.steele@byu.edu

**ADVISEMENT CENTER INFORMATION**
Life Science Student Services  
Brigham Young University  
2060 Life Sciences Building  
Provo, UT 84602  
Telephone: (801) 422-3042  
lifesciences@byu.edu

The technical track are able to obtain a minor in chemistry. Students pursuing the management track are eligible to apply for a business minor and are well prepared for graduate studies in a Master of Business Administration (MBA) program.

**PRACTICAL EXPERIENCE AND INTERNSHIPS:**
Students can get hands-on experience working several semesters with faculty on research projects. Summer work opportunities are available with many food companies in numerous cities. The department has developed ongoing summer internships with several food companies.

**PROFESSIONAL ASSOCIATION:**
BYU’s food science technical track curriculum has been reviewed and approved by the Institute of Food Technologists (IFT), the professional society of food scientists.

**HONORARY SOCIETIES AND CLUBS:**
Students and faculty interact in the various social, service and career-related activities of the Food Science Club. The Food Science Club is a student chapter of IFT and participates in the statewide IFT Bonneville Section, which helps students develop a network of professional contacts. Students may also participate in Food Science College Bowl and other student competitions sponsored by IFT.

**CAREERS:**
Food Science provides excellent career prospects in the worldwide, multibillion dollar food industry. The food industry is consistently looking for graduates to fill all of the unique and challenging opportunities available. Potential careers include:
Food research and development scientist | Develops new food products according to market demand. Improves and modifies existing foods to meet current consumer wants. Participates in manufacturing scale-up and commercialization of lab prototypes.

**FINANCING:**
Scholarships are available from the department, the college, and IFT. University and federal sources of scholarships and financing are also available. Many students work part time to help with finances. Research opportunities and summer work are available for most students. Work in the department as research or teaching assistants is available for some qualified students.

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