BS in Nutritional Science (284325) MAP Sheet
Life Sciences, Nutrition Dietetics and Food Science
For students entering the degree program during the 2022-2023 curricular year.
Nutritional science is an excellent preprofessional sequence which prepares students for further training in medical or dental schools or for graduate study.

University Core and Graduation Requirements
University Core Requirements:
Requirements#ClassesHoursClasses
Religion Cornerstones
Teachings and Doctrine of The Book of Mormon12.REL A 275
Jesus Christ and the Everlasting Gospel12.REL A 250
Foundations of the Restoration12.REL C 225
The Eternal Family12.REL C 200
The Individual and Society
American Heritage1-23.0from approved list
Global and Cultural Awareness13.0from approved list
Skills
First Year Writing13.0from approved list
Advanced Written and Oral Communications13.0WTRG 316 recommended
Quantitative Reasoning0-10.0from approved list
Languages of Learning (Math or Language)13.0STAT 121*
Arts, Letters, and Sciences
Civilization 113.0from approved list
Civilization 213.0from approved list
Arts13.0from approved list
Letters13.0from approved list
Biological Science13.0NDFS 100*
Physical Science27.0CHEM 105*, PHSCS 105*
Social Science13.0from approved list
Core Enrichment: Electives
Religion Electives3-46.0from approved list
Open ElectivesVariableVariableVariablepersonal choice

*These classes fill both university core and program requirements (15 hours overlap).

Graduation Requirements:
Minimum residence hours required30.0
Minimum hours needed to graduate120.0

Suggested Sequence of Courses
Freshman Year
1st Semester
CHEM 105 (FWSpSu)4.0
1st Year Writing (FWSpSu) or A HTG 100 (FWSpSu)3.0
NDFS 100 (FWSpSu)3.0
PDBIO 120 (FWSp)3.0
Quantitative Reasoning (if needed)3.0
Religion Cornerstone course 2.0
Total Hours18.0
2nd Semester
A HTG 100 (FWSpSu) or 1st Year Writing (FWSpSu)3.0
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 106 &amp; 107 (FWSpSu)</td>
<td>4.0</td>
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<tr>
<td>PDBIO 305 (FWSp)</td>
<td>4.0</td>
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<tr>
<td>STAT 121 (FWSpSu)</td>
<td>(Lang. of Learning)3.0</td>
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<tr>
<td>Religion Cornerstone course</td>
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<tr>
<td>Total Hours</td>
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**Sophomore Year**

**3rd Semester**

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<tr>
<td>CHEM 351 (FWSp)</td>
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<tr>
<td>NDFS 200 (FSp)</td>
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<tr>
<td>NDFS 294 (F)</td>
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<td>MMBIO 240 (FWSp)</td>
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<tr>
<td>Religion Cornerstone course</td>
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<tr>
<td>NDFS electives</td>
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**4th Semester**

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<tr>
<td>CHEM 352 (FWSpSu)</td>
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<tr>
<td>CHEM 353 (FWSpSu)</td>
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<tr>
<td>NDFS electives</td>
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<tr>
<td>General elective</td>
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<tr>
<td>Religion Cornerstone course</td>
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**Junior Year**

**5th Semester**

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<tr>
<td>CHEM 481 (FWSp)</td>
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<tr>
<td>Civilization 1 elective</td>
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<tr>
<td>Nutritional Science elective</td>
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<tr>
<td>PHSCS 105 (FWSp) (Physical Science)</td>
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<td>Religion elective</td>
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<td>Total Hours</td>
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**6th Semester**

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<tr>
<td>Civilization 2 elective</td>
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<tr>
<td>WRTG 316 (FWSpSu) (Advanced Writing)</td>
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<tr>
<td>NDFS 305 (W)</td>
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<tr>
<td>Arts or Letters elective</td>
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<tr>
<td>Religion elective (FWSpSu)</td>
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<td>Total Hours</td>
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**Senior Year**

**7th Semester**

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<tr>
<td>NDFS 435 (FSp)</td>
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<tr>
<td>Nutritional Science electives</td>
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<tr>
<td>Arts or Letters elective</td>
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<tr>
<td>Religion elective</td>
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<tr>
<td>General electives</td>
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<tr>
<td>Total Hours</td>
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**8th Semester**

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<th>Credits</th>
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<tbody>
<tr>
<td>NDFS 424 (W)</td>
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<tr>
<td>Nutritional science electives</td>
<td>2-3.0</td>
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<tr>
<td>Social Science elective</td>
<td>3.0</td>
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<tr>
<td>Global &amp; Cultural Awareness elective</td>
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General electives 4-5.0
Total Hours 14-16.0
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 Nutritional Science (284325) 2022-2023 Program Requirements (60 - 62 Credit Hours)

requirement 1 Complete 4 courses

Core requirements:
*NDFS 100 - Essentials of Human Nutrition 3.0
NDFS 200 - Nutrient Metabolism 3.0
NDFS 294 - Nutrition Research Fundamentals 1.0
NDFS 435 - Nutritional Biochemistry and Metabolism 4.0

requirement 2 Complete 6.0 hours from the following course(s)
NDFS 201 - Society, Nutrition, and Chronic Disease 3.0
NDFS 300 - Medical Nutrition Therapy 1 4.0
NDFS 310 - Nutrition and Metabolism in Sports and Exercise 3.0
NDFS 333 - Nutrigenetics and Nutrigenomics 3.0

requirement 3 Complete 6.0 hours from the following course(s)
CELL 360 - Cell Biology 3.0
HLTH 345 - Principles of Epidemiology 3.0
MBIO 241 - Molecular and Cellular Biology Laboratory 1.0
NDFS 201 - Society, Nutrition, and Chronic Disease 3.0
NDFS 250 - Essentials of Food Science 3.0
NDFS 251 - Essentials of Food Science Laboratory 1.0
NDFS 300 - Medical Nutrition Therapy 1 4.0
NDFS 310 - Nutrition and Metabolism in Sports and Exercise 3.0
NDFS 333 - Nutrigenetics and Nutrigenomics 3.0
NDFS 380 - International Nutrition 3.0
NDFS 400 - Community Nutrition 3.0
NDFS 410 - Human Obesity 3.0
NDFS 424 - Nutrition Through the Life Cycle 2.0
NDFS 440 - Nutrition Education and Counseling 3.0

requirement 4 Complete 1 course
Prerequisite to CELL 305, required below:
CELL 210 - Human Anatomy (with virtual lab) 3.0
CELL 220 - Human Anatomy (with lab) 4.0

requirement 5 Complete 11 courses
CELL 120 - Science of Biology 3.0
CELL 305 - Human Physiology 4.0

*CHEM 105 - General College Chemistry 1 with Lab (Integrated) 4.0
CHEM 106 - General College Chemistry 2 3.0
CHEM 107 - General College Chemistry Laboratory 1.0
CHEM 351 - Organic Chemistry 1 3.0
CHEM 352 - Organic Chemistry 2 3.0
CHEM 481 - Biochemistry 3.0
MMBIO 240 - Molecular Biology 3.0
*PHSCS 105 - General Physics 1 3.0
*STAT 121 - Principles of Statistics 3.0

requirement 6 Complete 1 hour from the following course(s)
CHEM 353 - Organic Chemistry Laboratory--Nonmajors 2.0v

Recommended Complete 7 courses
CELL 363 - Advanced Physiology Laboratory 1.0
CHEM 223 - (Not currently offered)
HLTH 345 - Principles of Epidemiology 3.0
MMBIO 221 - General Microbiology 3.0
PHSCS 106 - General Physics 2 3.0
PHSCS 107 - General Physics Lab 1 1.0
PHSCS 108 - General Physics Lab 2 1.0

Note: Professional schools and graduate programs may require additional courses not required for the major, such as Phscs 106, 107, 108, or Math 119 or 112. Students should contact the program to which they may apply to determine the specific courses required.

THE DISCIPLINE:
Nutritional Science is the study of the effects of food components on the metabolism, health, performance and disease resistance of humans. It also includes the study of human behaviors related to food choices.

COURSE WORK:
Courses required for the undergraduate major in nutritional science are divided into three general areas: core courses, elective courses, and supporting courses. Core courses provide a foundation in nutritional science. Elective courses (two categories of elective courses) allow students to select a more directed and specific training in nutritional science. Supporting courses include anatomy, physiology, chemistry, biochemistry, physics statistics, and chemistry, biochemistry, physics, statistics, and molecular biology.

FINANCING:
Some assistantships and scholarships are offered through the Department of Nutrition, Dietetics, and Food Science. There are also college, university, private, and federal sources for financial help.

CAREERS:
Graduates with a B.S. in Nutritional Science find employment in major research centers; biotechnology, pharmaceutical, and nutraceutical industries; community nutrition programs; nongovernmental organizations; and the fitness industry.

Other jobs are available with food security advocacy groups (e.g., food banks, anti-poverty organizations), health advocacy organizations (preventing osteoporosis, cancer, or heart disease), trade groups for commodities (citrus fruits, vegetable growers), and people working to increase food security (farmers’ market organizers, Supplemental Nutrition Assistance Programs [formerly called food stamps] as educators or administrators). Specialized skills or training such as laboratory research experience, bilingual proficiency, journalism courses and experience, or service learning with local, national, or international community organizations make students more competitive for these jobs.

Many graduates with a BS in Nutritional Science have gone on to obtain a graduate degree (e.g., MS, MPH, PhD) at institutions such as BYU, Stanford University, the University of Illinois, the University of Utah, Utah State University, and University of Rome Tor Vergata. In addition, Nutritional Science graduates have attended medical schools at Duke, Baylor, and the Mayo Clinic (among many others), dental schools at Ohio State, University of Pittsburgh, and University of the Pacific, as well as schools of osteopathy, pharmacy, podiatry, optometry, physical therapy, and accredited physician assistant programs.

Most nutrition counseling services are provided by Registered Dietitians. Students interested in a career as a nutrition counselor should consider majoring in Dietetics.

PRACTICAL EXPERIENCE:
Students may participate in research under a professor’s direction.
BS in Nutritional Science (284325) 2022-2023
Interested students should familiarize themselves with the professor’s research interests and ongoing projects. Students should approach the professor whose work most interests them to discuss how they can become involved. Students may participate as a paid research assistant for academic credit (NDFS 494R - Undergraduate Research or NDFS 399R - Academic Internship). Some students who have taken advantage of this opportunity have presented the results of their research at regional, national, and international scientific meetings and have published their results in peer-reviewed scientific journals.

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

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NDFS Dept. Office: (801) 422-3912
Nutrition Advisor: Jason Kenealey
ESC S-249, jason_kenealey@byu.edu, 801-422-7588

ADVISEMENT CENTER INFORMATION

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