

BS in Nutritional Science (284325) MAP Sheet

Life Sciences, Nutrition Dietetics and Food Science

For students entering the degree program during the 2017-2018 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 | | | Suggested Sequence of Courses |
|--|-----------------|--------------|---|
| University Core Requirements: | | | |
| Requirements | #Classes | Hours | Classes |
| Religion Cornerstones | | | |
| Teachings and Doctrine of The Book of Mormon | 1 | 2.0 | REL A 275 |
| Jesus Christ and the Everlasting Gospel | 1 | 2.0 | REL A 250 |
| Foundations of the Restoration | 1 | 2.0 | REL C 225 |
| The Eternal Family | 1 | 2.0 | REL C 200 |
| The Individual and Society | | | |
| American Heritage | 1-2 | 3-6.0 | from approved list |
| Global and Cultural Awareness | 1 | 3.0 | from approved list |
| Skills | | | |
| First Year Writing | 1 | 3.0 | from approved list |
| Advanced Written and Oral Communications | 1 | 3.0 | ENGL 316 recommended |
| Quantitative Reasoning | 0-1 | 0-3.0 | from approved list |
| Languages of Learning (Math or Language) | 1 | 3.0 | STAT 121* |
| Arts, Letters, and Sciences | | | |
| Civilization 1 | 1 | 3.0 | from approved list |
| Civilization 2 | 1 | 3.0 | from approved list |
| Arts | 1 | 3.0 | from approved list |
| Letters | 1 | 3.0 | from approved list |
| Biological Science | 1 | 3.0 | NDFS 100* |
| Physical Science | 2 | 7.0 | CHEM 105*, PHSCS 105* |
| Social Science | 1 | 3.0 | from approved list |
| Core Enrichment: Electives | | | |
| Religion Electives | 3-4 | 6.0 | from approved list |
| Open Electives | Variable | Variable | personal choice |
| *These classes fill both university core and program requirements (15 hours overlap). | | | |
| Graduation Requirements: | | | |
| Minimum residence hours required | | 30.0 | |
| Minimum hours needed to graduate | | 120.0 | |
| | | | FRESHMAN YEAR |
| | | | <u>1st Semester</u> |
| | | | 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 Hours 18.0 |
| | | | <u>2nd Semester</u> |
| | | | A HTG 100 (FWSpSu) or 1st Year Writing (FWSpSu) 3.0 |
| | | | CHEM 106 & 107 (FWSpSu) 4.0 |
| | | | PDBIO 305 (FWSp) 4.0 |
| | | | STAT 121 (FWSpSu) (Lang. of Learning) 3.0 |
| | | | Religion Cornerstone course 2.0 |
| | | | Total Hours 16.0 |
| | | | SOPHOMORE YEAR |
| | | | <u>3rd Semester</u> |
| | | | CHEM 351 (FWSp) 3.0 |
| | | | NDFS 200 (FSp) 3.0 |
| | | | NDFS 294 (F) 1.0 |
| | | | MMBIO 240 (FWSp) 3.0 |
| | | | Religion Cornerstone course 2.0 |
| | | | NDFS electives 2-4.0 |
| | | | Total Hours 14-16.0 |
| | | | <u>4th Semester</u> |
| | | | CHEM 352 (FWSpSu) 3.0 |
| | | | CHEM 353 (FWSpSu) 1.0 |
| | | | NDFS electives 3-4.0 |
| | | | General elective 5-6.0 |
| | | | Religion Cornerstone course 2.0 |
| | | | Total Hours 14-16.0 |
| | | | JUNIOR YEAR |
| | | | <u>5th Semester</u> |
| | | | CHEM 481 (FWSp) 3.0 |
| | | | Civilization 1 elective 3.0 |
| | | | Nutritional Science elective 3.0 |
| | | | PHSCS 105 (FWSp) (Physical Science) 3.0 |
| | | | Religion elective 2.0 |
| | | | Total Hours 14.0 |
| | | | <u>6th Semester</u> |
| | | | Civilization 2 elective 3.0 |
| | | | ENGL 316 (FWSpSu) (Advanced Writing) 3.0 |
| | | | NDFS 305 (W) 4.0 |
| | | | Arts or Letters elective 3.0 |
| | | | Religion elective (FWSpSu) 2.0 |
| | | | Total Hours 15.0 |
| | | | SENIOR YEAR |
| | | | <u>7th Semester</u> |
| | | | NDFS 435 (FSp) 4.0 |
| | | | Nutritional Science electives 4.0 |
| | | | Arts or Letters elective 3.0 |
| | | | Religion elective 2.0 |
| | | | General electives 3.0 |
| | | | Total Hours 16.0 |
| | | | <u>8th Semester</u> |
| | | | NDFS 424 (W) 2.0 |
| | | | Nutritional science electives 2-3.0 |
| | | | Social Science elective 3.0 |
| | | | Global & Cultural Awareness elective 3.0 |
| | | | 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. | | | |

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2017-2018 Program Requirements (60 Credit Hours)

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| <p>REQUIREMENT 1 Complete 6 courses</p> <p>CORE REQUIREMENTS:</p> <p>*NDFS 100 - Essentials of Human Nutrition 3.0</p> <p>NDFS 200 - Nutrient Metabolism 3.0</p> <p>NDFS 294 - Nutrition Research Fundamentals 1.0</p> <p>NDFS 305 - Nutritional Implications of Disease 4.0</p> <p>NDFS 424 - Nutrition Through the Life Cycle 2.0</p> <p>NDFS 435 - Nutritional Biochemistry and Metabolism 4.0</p> <p>REQUIREMENT 2 Complete 7.0 hours from the following course(s)</p> <p>COMPLETE 7 HOURS FROM THE FOLLOWING (AT LEAST ONE COURSE MUST BE NDFS 250, 310, OR 400):</p> <p>HLTH 345 - Principles of Epidemiology 3.0</p> <p>MMBIO 241 - Molecular and Cellular Biology Laboratory 1.0</p> <p>NDFS 250 - Essentials of Food Science 3.0</p> <p>NDFS 251 - Essentials of Food Science Laboratory 1.0</p> <p>NDFS 310 - Nutrition and Metabolism in Sports and Exercise 2.0</p> <p>NDFS 399R - Academic Internship 9.0v</p> <p><i>You may take up to 3 credit hours.</i></p> <p>NDFS 400 - Community Nutrition 3.0</p> <p>NDFS 494R - Undergraduate Research in Nutrition, Dietetics, or Food Sc 3.0v</p> <p><i>You may take up to 3 credit hours.</i></p> <p>PDBIO 360 - Cell Biology 3.0</p> <p>PWS 340 - Genetics 3.0</p> <p>REQUIREMENT 3 Complete 1 course</p> <p>PREREQUISITE TO PDBIO 305, REQUIRED BELOW:</p> <p>PDBIO 210 - Human Anatomy (with virtual lab) 3.0</p> <p>PDBIO 220 - Human Anatomy (with lab) 3.0</p> <p>REQUIREMENT 4 Complete 12 courses</p> <p>(COMPLETE 1 HOUR OF CHEM 353.)</p> <p>*CHEM 105 - General College Chemistry 1 with Lab (Integrated) 4.0</p> <p>CHEM 106 - General College Chemistry 2 3.0</p> <p>CHEM 107 - General College Chemistry Laboratory 1.0</p> <p>CHEM 351 - Organic Chemistry 1 3.0</p> <p>CHEM 352 - Organic Chemistry 2 3.0</p> <p>CHEM 353 - Organic Chemistry Laboratory--Nonmajors 2.0v</p> <p>CHEM 481 - Biochemistry 3.0</p> <p>MMBIO 240 - Molecular Biology 3.0</p> <p>PDBIO 120 - Science of Biology 3.0</p> <p>PDBIO 305 - Human Physiology 4.0</p> <p>*PHSCS 105 - General Physics 1 3.0</p> | <p>*STAT 121 - Principles of Statistics 3.0</p> <p>RECOMMENDED Complete 7 courses</p> <p>CHEM 223 - Quantitative and Qualitative Analysis 4.0</p> <p>HLTH 345 - Principles of Epidemiology 3.0</p> <p>MMBIO 221 - General Microbiology 3.0</p> <p>PDBIO 363 - Advanced Physiology Laboratory 1.0</p> <p>PHSCS 106 - General Physics 2 3.0</p> <p>PHSCS 107 - General Physics Lab 1 1.0</p> <p>PHSCS 108 - General Physics Lab 2 1.0</p> <p>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.</p> <p>THE DISCIPLINE:</p> <p>Nutritional Science is the study of the effects of food components on the metabolism, health, performance and disease resistance of human and animals. It also includes the study of human behaviors related to food choices.</p> <p>COURSE WORK:</p> <p>Courses required for the undergraduate major in nutritional science are divided into three areas. The core courses provide a broad foundation in nutritional science. The supporting courses include chemistry, biochemistry, physics, statistics, physiology, biology, and molecular biology. The third area includes the nutritional science electives.</p> <p>FINANCING:</p> <p>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.</p> <p>CAREERS:</p> <p>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.</p> | <p>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.</p> <p>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.</p> <p>Most nutrition counseling services are provided by Registered Dietitians. Students interested in a career as a nutrition counselor should consider majoring in Dietetics.</p> <p>PRACTICAL EXPERIENCE:</p> <p>Students may participate in research under a professor's direction. 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 volunteer to gain experience, as a paid research assistant, or for academic credit (NDFS 494R - Undergraduate Research). 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.</p> <p>MAP DISCLAIMER</p> <p>While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed</p> |
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2017-2018

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
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Provo, UT 84602

NDFS Dept. Office: (801) 422-3912
Nutrition Advisor: Dr. Chad Hancock
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ADVISEMENT CENTER INFORMATION

Life Science Student Services

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