BS in Nutritional Science (284325) MAP Sheet

Life Sciences, Nutrition Dietetics and Food Science

For students entering the degree program during the 2024-2025 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	#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
Religion Hours	1	2.0	from approved list
BYU Foundations for Student Success			
BYU Foundations (complete during the first semester)	1	2.0	UNIV 101
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	WTRG 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 (complete 6 of 7)			
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

Suggested Sequence of Courses

FRESHMAN YEAR

1st Semester

CHEM 105 (FWSpSu)	4.0
NDFS 100 (FWSpSu)	3.0
CELL 120 (FWSp)	3.0
UNIV 101	2.0
Doctrinal Foundations course	2.0
Total Hours	**14.0**

2nd Semester

1st Year Writing (FWSpSu)	3.0
CHEM 106 & 107 (FWSpSu)	4.0
CELL 210/220 (FWSp)	3-4.0
NDFS 194 (FW)	1.0
Doctrinal Foundations course	2.0
Total Hours	**13-14.0**

SOPHOMORE YEAR

3rd Semester

CHEM 351 (FWSp)	3.0
NDFS 200 (FSp)	3.0
CELL 305 (FWSp)	4.0
MMBIO 240 (FWSp)	3.0
Doctrinal Foundations course	2.0
Total Hours	**15.0**

4th Semester

CHEM 352 (FWSpSu)	3.0
CHEM 353 (FWSpSu)	1.0
PHSCS 105 (FWSp) (Physical Science)	3.0
Nutritional Science elective(s)	3.0
Arts, Letters, and Sciences	3.0
Doctrinal Foundations course	2.0
Total Hours	**15.0**

JUNIOR YEAR

5th Semester

CHEM 481 (FWSp)	3.0
Arts, Letters, and Sciences	3.0
Nutritional Science elective(s)	3.0
STAT 121	3.0
Religion elective	2.0
Total Hours	**14.0**

6th Semester

Arts, Letters, and Sciences	3.0
Advanced Writing -WRTG 316 (FWSpSu)	3.0
NDFS 435 (FW)	4.0
Religion elective (FWSpSu)	2.0
Nutritional science electives	2.0-4.0
Total Hours	**14-16.0**

SENIOR YEAR

7th Semester

Nutritional Science elective(s)	3.0
Arts or Letters elective	3.0
American Heritage	3.0
Religion elective	2.0
General electives	3.0
Total Hours	**14.0**

8th Semester

Nutritional science electives	3-6.0
Social Science elective	3.0
Global & Cultural Awareness elective	3.0
Arts or Letters elective	3.0
Total Hours	**12-15.0**

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.

Program Requirements

Requirement 1 — Complete 4 Courses

Core requirements:

NDFS 100 - Essentials of Human Nutrition 3.0
NDFS 200 - Nutrient Metabolism 3.0
NDFS 194 - Nutrition Research Fundamentls 1.0
NDFS 435 - Nutr Biochem & Metabolism 4.0

Requirement 2 —Complete 6 hours

NDFS 201 - Society Nutr Chronic Disease 3.0
NDFS 300 - Med Nutr Therapy 1 4.0
NDFS 310 - Nutr & Metab Sports Exercise 3.0
NDFS 333 - Nutrition and Genes 3.0
NDFS 380 - International Nutrition 3.0
NDFS 400 - Community Nutrition 3.0
NDFS 410 - Human Obesity 3.0
NDFS 424 - Nutrition Through Life Cycle 2.0
NDFS 440 - Nutrition Educ & Counseling 3.0

Requirement 3 —Complete 6 hours

Note: No more than 3 credits combined from NDFS 399R or 494R can be applied to this requirement.

CELL 360 - Cell Biology 3.0
HLTH 345 - Principles of Epidemiology 3.0
MMBIO 241 - Molecular & Cellular Bio Lab 1.0
NDFS 201 - Society Nutr Chronic Disease 3.0
NDFS 250 - Essentials of Food Science 3.0
NDFS 251 - Essentials of Food Sci Lab 1.0
NDFS 300 - Med Nutr Therapy 1 4.0
NDFS 310 - Nutr & Metab Sports Exercise 3.0
NDFS 333 - Nutrition and Genes 3.0
NDFS 380 - International Nutrition 3.0
NDFS 399R - Academic Internship - *You may take once* 0.5v
NDFS 400 - Community Nutrition 3.0
NDFS 410 - Human Obesity 3.0
NDFS 424 - Nutrition Through Life Cycle 2.0
NDFS 440 - Nutrition Educ & Counseling 3.0
NDFS 494R - Undergrad Research in N D F S - *You may take once* 0.5v
PWS 340 - Genetics 3.0

Requirement 4 —Complete 1 of 2 Courses

Prerequisite to CELL 305, required below:

CELL 210 - Human Anatomy (w/ 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 - Gen College Chem 1+Lab Integr 4.0
CHEM 106 - General College Chemistry 2 3.0
CHEM 107 - Gen Coll Chem Lab 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 - Intro to Stat Data Analysis 3.0

Requirement 6 —Complete 1 hour

CHEM 353 - Organic Chem Lab-Nonmajors 1.0v

Recommended Courses are not required to complete the program

CELL 363 - Adv Physiology Lab 1.0
CHEM 223 - Quant & Qual Analy 4.0
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. 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

Nutrition, Dietetics and Food Science
Brigham Young University
S-221 Eyring Science Center Provo, UT 84602
NDFS Dept. Office: (801) 422-3912
Nutrition Advisor: Jason Kenealey
ESC S-249, Jason_kenealey@byu.edu, 801-422-7588

ADVISEMENT CENTER INFORMATION

Life Sciences Advisement Brigham Young University
2060 Life Sciences Building Provo, UT 84602
Telephone: (801) 422-3042
lifesciences@byu.edu