NUTRITION MAJOR: NUTRITIONAL SCIENCES OPTION (B.S.)

https://colsa.unh.edu/agriculture-nutrition-food-systems/program/bs/nutrition-major-nutritional-sciences-option

Description

Nutrition is the study of how nutrients and food components function at molecular, cellular, and whole-body levels to impact human health and disease. Students are grounded in fundamental sciences as they develop nutrition-specific competencies in nutrition and health, foods, nutritional assessment, wellness, life cycle nutrition, and/or metabolic biochemistry.

The nutrition program prepares students for entry-level positions in health care, education, research, or the biotechnology industry, or entry into post-baccalaureate professional programs. Nutrition faculty have expertise in clinical nutrition, sports nutrition, and food science, as well as assessing risk factors of chronic disease risk (i.e. obesity, diabetes, cardiovascular, cognitive) in diverse populations (pediatric, young adult, older adult), and populations that are underrepresented in research.

Students in the Nutritional Sciences option most often enroll in a postgraduate educational degree program (e.g., medical school, graduate school, physician assistant program, etc.) or enter the biomedical/biotechnology workplace.

Requirements

Degree Requirements

Minimum Credit Requirement: 128 credits

Minimum Residency Requirement: 32 credits must be taken at UNH

Minimum GPA: 2.0 required for conferral*

Core Curriculum Required: Discovery & Writing Program Requirements

Foreign Language Requirement: No

All Major, Option and Elective Requirements as indicated.

*Major GPA requirements as indicated.

Major Requirements

A minimum grade of C- or above is required in all NUTR courses required by the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BMS 507</td>
<td>Human Anatomy and Physiology I</td>
<td>4</td>
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<tr>
<td>BMS 508</td>
<td>Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>SOC 400</td>
<td>Introductory Sociology</td>
<td>4</td>
</tr>
<tr>
<td>or PSYC 401</td>
<td>Introduction to Psychology</td>
<td>4</td>
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<td></td>
<td>Choose ONE statistics course:</td>
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<td></td>
<td>BIOL 528</td>
<td>Applied Biostatistics I</td>
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<tr>
<td></td>
<td>PSYC 402</td>
<td>Statistics in Psychology</td>
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<td></td>
<td>SOC 402</td>
<td>Statistics</td>
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</tbody>
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Science Core Courses

BIOL 411 Introductory Biology Molecular and Cellular 4
BIOL 412 Introductory Biology Evolution, Biodiversity and Ecology 4
BMCR 668 General Biochemistry 5
BMCR 669 General Biochemistry Lab 5
BMS 503 General Microbiology 5
BMS 504 and General Microbiology Laboratory 5
CHEM 403 General Chemistry I 4
CHEM 404 General Chemistry II 4
CHEM 545 Organic Chemistry 5
CHEM 546 Organic Chemistry Laboratory 5
GEN 604 Principles of Genetics 4

NUTR 400 Nutrition in Health and Well Being 4
NUTR 401 Professional Perspectives on Nutrition 1
NUTR 476 Nutritional Assessment 4
NUTR 650 Life Cycle Nutrition 4

NUTR 750 Nutritional Biochemistry of Micronutrients 4

Major Elective Courses

Two nutrition Electives and a third Elective outside the major are chosen in consultation with the student’s advisor, based on the student’s career interests.

Choose 2 NUTR courses (minimum 8 credits)

NUTR 403 Culinary Arts Skills Development 4
NUTR 405 Food and Society 4
NUTR 504 Managerial Skills in Dietetics 4
NUTR 506 Nutrition and Wellness 4
NUTR 525 Food and Culture in Italy 4
NUTR 530 Critical Analysis in Food Studies 4
NUTR 535 History of Food in Italy 4
NUTR 546 Nutrition in Exercise and Sports 4
NUTR 550 Food Science: Principle and Practice 4
NUTR 560 Introduction to Research in Nutrition 2
NUTR 595 Mediterranean Diet and Culture 4
NUTR 600 Field Experience in Nutrition 1-4
NUTR 610 Nutrition Education and Counseling 4
NUTR 625 From Farm to the Italian Table 4
NUTR 709 Nutritional Epidemiology 4
NUTR 710 Advanced Diabetes Care 2
NUTR 715 Advanced Sports Nutrition 4
NUTR 720 Community Nutrition 4
NUTR 730 From Seed to Sea: Examining Sustainable Food Systems 4
NUTR 740 Nutrition for Children with Special Needs 4
NUTR 755 Concepts and Controversies in Weight Management 5
& NUTR 758 and Practicum in Nutrition and Wellness 5
NUTR 773 Clinical Nutrition 4
NUTR 775 Practicum Applications in Medical Nutrition Therapy 4
NUTR 780 Critical Issues in Nutrition 4
NUTR 790 Undergraduate Teaching Experience 1-2

Elective Outside the Major at 600- or 700-Level (4 credits)

Nutritional Science Capstone Experience

One capstone experience, supervised and approved within the major, is required of all seniors. The capstone explores areas of interest based on the integration of prior learning. The capstone requirement for Nutritional Sciences students is satisfied through the completion of NUTR 720 Community Nutrition or NUTR 751 Nutritional Biochemistry of Micronutrients.

NUTR 751 is a required course; and will only fulfill the university’s capstone requirement if taken during the student’s senior year.
**Degree Plan**

**SAMPLE Course Sequence for Nutritional Science**

### First Year

#### Fall
- **NUTR 400** Nutrition in Health and Well Being 4
- **NUTR 401** Professional Perspectives on Nutrition 4
- **ENGL 401** First-Year Writing 4
- **BIOL 411** Introductory Biology: Molecular and Cellular 4
- **CHEM 403** General Chemistry I 4

**Credits** 17

#### Spring
- **NUTR 476** Nutritional Assessment 4
- **BIOL 412** Introductory Biology: Evolution, Biodiversity and Ecology 4
- **CHEM 404** General Chemistry II 4
- **MATH 424B** Calculus for Life Sciences 4

**Credits** 17

### Second Year

#### Fall
- **CHEM 545** Organic Chemistry 5
- **& CHEM 546** and Organic Chemistry Laboratory 4
- **BMS 507** Human Anatomy and Physiology I 4
- **Select one of the following:** 4
  - **BIOL 528** Applied Biostatistics I
  - **PSYC 402** Statistics in Psychology
  - **SOC 402** Statistics
- **Discovery Course** 4

**Credits** 17

#### Spring
- **BMS 503** General Microbiology 5
- **& BMS 504** and General Microbiology Laboratory 4
- **BMS 508** Human Anatomy and Physiology II 4
- **SOC 400** Introductory Sociology 4
- **or PSYC 401** or Introduction to Psychology 4
- **Elective (any course)** 4

**Credits** 17

### Third Year

#### Fall
- **GEN 604** Principles of Genetics 4
- **Nutrition Elective** 2-4
- **Discovery Course** 4
- **Elective (any course)** 4

**Credits** 14-16

#### Spring
- **NUTR 650** Life Cycle Nutrition 4
- **BMCB 658** General Biochemistry 5
- **& BMCB 659** and General Biochemistry Lab 4
- **Discovery Course** 4
- **Nutrition Elective** 2-4

**Credits** 15-17

### Fourth Year

#### Fall
- **NUTR 750** Nutritional Biochemistry 4
- **Discovery Course** 4
- **Elective (any course)** 4

**Credits** 16

#### Spring
- **NUTR 751** Nutritional Biochemistry of Micronutrients 4
- **600 or 700-Level Elective Outside the Major** 4
- **Discovery Course** 4
- **Elective (any course)** 4

**Credits** 16

**Total Credits** 128-132

### Student Learning Outcomes

- Locate, interpret, evaluate and use professional literature to make ethical, evidence-based conclusions and decisions.
- Apply critical thinking skills.
- Deliver effective and professional oral and written communication.
- Demonstrate cultural humility, awareness of personal biases and an understanding of cultural difference they contribute to diversity, equity, and inclusion.
- Articulate the nutritional requirements for various populations across the lifespan.
- Explain macronutrient and micronutrient metabolism.
- Demonstrate an understanding of the scientific method and how it is used to generate knowledge in nutrition science.