

# NUTRITIONAL SCIENCES, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Degree Requirements

For the Bachelor of Science degree in Nutritional Sciences, a minimum of 120 credits is required:

Requirement	Credits
General Education	45
Electives	2-5
Requirements for the Major	88-91

17-18 of the 45 credits for General Education are included in the Requirements for the Major. This includes: Nutritional Physiology and Biochemistry Option: 6 credits of GQ courses; 3 credits of GHW courses; 9 credits of GN courses. Behavioral Nutrition and Public Health Option: 3 credits of GQ courses; 3 credits of GHW courses; 8 credits of GN courses; 3 credits of GS courses. Nutrition and Dietetics Option; 3 credits of GQ courses; 3 credits of GHW courses; 9 credits of GN courses; 3 credits of GS courses.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. NUTR requires students to complete 24 credits for the major through courses taken at University Park. Courses taken at other Penn State campuses may not be counted toward this 24 credit minimum. For more information, check the Suggested Academic Plan for this major.

## Requirements for the Major

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44>).

### Common Requirements for the Major (All Options)

Code	Title	Credits
<b>Prescribed Courses</b>		
<i>Prescribed Courses: Require a grade of C or better</i>		
BIOL 161	Human Anatomy and Physiology I - Lecture	3
BIOL 163	Human Anatomy and Physiology II - Lecture	3
BMB 211	Elementary Biochemistry	3
NUTR 251	Introductory Principles of Nutrition	3
NUTR 445	Energy and Macronutrient Metabolism	3
NUTR 446	Micronutrient Metabolism	3
NUTR 451	Nutrition throughout the Life Cycle	3

### Additional Courses

*Additional Courses: Require a grade of C or better*

STAT 200	Elementary Statistics	3
or STAT 250	Introduction to Biostatistics	

### Requirements for the Option

Select an option	64-67
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## Requirements for the Option

### Behavioral Nutrition and Public Health Option (64 credits)

Code	Title	Credits
<b>Prescribed Courses</b>		
BBH 101	Introduction to Biobehavioral Health	3
BBH/HPA 440	Principles of Epidemiology	3
BIOL 162	Human Anatomy and Physiology I - Laboratory	1
BIOL 164	Human Anatomy and Physiology II - Laboratory	1
NUTR 211R	Applying Biochemistry to Nutrition	1
NUTR 320	Science and Methods of Food Preparation	4
NUTR 358	Assessment of Nutritional Status	3
NUTR 360	Nutrition Education and Behavior Change Theory	3
NUTR 361	Community and Public Health Nutrition	3
NUTR 452	Nutritional Aspects of Disease	3
NUTR 490W	Nutrition Seminar	3
<b>Additional Courses</b>		
CHEM 110	Chemical Principles I	3
or CHEM 130	Introduction to General, Organic, and Biochemistry	
CHEM 202	Fundamentals of Organic Chemistry I	3
or CHEM 210	Organic Chemistry I	
HDFS 129	Introduction to Human Development and Family Studies	3
or PSYCH 100	Introductory Psychology	
NUTR 421	Biocultural Perspectives on Public Health Nutrition	3
or NUTR 425	Global Nutrition Problems: Health, Science, and Ethics	
NUTR 175		3
or NUTR 175Z	Healthy Food for All: Factors that Influence What we Eat in the US	
Select one of the following:		3
AGBM 101	Economic Principles of Agribusiness Decision Making	
ECON 102	Introductory Microeconomic Analysis and Policy	
ECON 104	Introductory Macroeconomic Analysis and Policy	
<i>Food, Nutrition, and Sustainability</i>		
Students must choose six (6) credits from the courses listed:		6
AEE 440	Communication Methods and Media	
AEE 450		
AGBM 102	Economics of the Food System	
AGBM 170	Investigating the U.S. Food System: How food moves from field to table	
AGBM 170Z	Investigating the U.S. Food System: How food moves from field to table	
CED 152	Community Development Concepts and Practice	
COMM 320	Introduction to Advertising	
COMM 370	Public Relations	
FOR 201	Global Change and Ecosystems	
GEOG 3N	Food and the Future Environment	
GEOG 30N	Environment and Society in a Changing World	
GEOG 230	Geographic Perspectives on Environment, Society and Sustainability	
HDFS 210Z	Ethnicity, Health and Aging	
HM/FDSYS 407	The Sustainable Fork: Food Systems Decisions for Away-From-Home Eating	

INTAG 100N	Everyone Eats: Hunger, Food Security & Global Agriculture	
NUTR 386	Managing Quality in Food and Nutrition Services	
RPTM 220	Sustainability, Society, and Well-being	
SOC 23	Population and Policy Issues	
SOC 30	Sociology of the Family	

**Global Health and Nutrition Policy**

Students must choose six (6) credits from the courses listed: 6

AEE 465	Leadership Practices: Power, Influences, and Impact	
BBH/AFAM 302	Diversity and Health	
BBH 305	Introduction to Global Health Issues	
BBH 316	Foundations and Principles of Health Promotion	
BBH 407	Global Health Equity	
BBH/WMNST/ NURS 452	Women's Health Issues	
COMM 320	Introduction to Advertising	
COMM 370	Public Relations	
GEOG 30N	Environment and Society in a Changing World	
HDFS 210Z	Ethnicity, Health and Aging	
HPA 101	Introduction to Health Services Organization	
SOC 210Z	Social Determinants of Health	

**Supporting Courses and Related Areas**

Choose six (6) additional supporting credits at the 400 level, in consultation with an adviser, from University-wide offerings that provide relevance to this option. No more than three (3) credits may be NUTR 496. See program list of recommended courses. 6

**Nutrition and Dietetics Option (64 credits)**

Code	Title	Credits
<b>Prescribed Courses</b>		
<i>Prescribed Courses: Require a grade of C or better</i>		
BIOL 162	Human Anatomy and Physiology I - Laboratory	1
BIOL 164	Human Anatomy and Physiology II - Laboratory	1
HM 230	Principles of Food Production Management	3
HM 330	Food Production and Operations Management	3
MICRB 106	Elementary Microbiology	3
MICRB 107	Elementary Microbiology Laboratory	1
NUTR 211R	Applying Biochemistry to Nutrition	1
NUTR 320	Science and Methods of Food Preparation	4
NUTR 358	Assessment of Nutritional Status	3
NUTR 360	Nutrition Education and Behavior Change Theory	3
NUTR 361	Community and Public Health Nutrition	3
NUTR 386	Managing Quality in Food and Nutrition Services	3
NUTR 391	Professional Preparation in Nutrition and Dietetics	2
NUTR 393	Dietetic Internship Application Development	1
NUTR 400	Introduction to Nutrition Counseling	2
NUTR 452	Nutritional Aspects of Disease	3
NUTR 453	Medical Nutrition Therapy	3
NUTR 490W	Nutrition Seminar	3
NUTR 495	Advanced Field Experience in Nutrition	3
<b>Additional Courses</b>		
CHEM 202	Fundamentals of Organic Chemistry I	3

or CHEM 210	Organic Chemistry I	
HDFS 129	Introduction to Human Development and Family Studies	3
or PSYCH 100	Introductory Psychology	

*Additional Courses: Require a grade of C or better*

CHEM 110	Chemical Principles I	3
or CHEM 130	Introduction to General, Organic, and Biochemistry	

**Supporting Courses and Related Areas**

Select 9 credits, in consultation with an adviser, from University-wide offerings that provide relevance to this option. See program list of recommended courses. (At least 6 credits must be at the 400 level and, of those, no more than 3 credits may be NUTR 496.) Three (3) credits may be substituted with credits earned through ROTC. 9

**Nutritional Physiology and Biochemistry Option (66-67 credits)**

Code	Title	Credits
<b>Prescribed Courses</b>		
BIOL 110	Biology: Basic Concepts and Biodiversity	4
BIOL 162	Human Anatomy and Physiology I - Laboratory	1
BIOL 164	Human Anatomy and Physiology II - Laboratory	1
BIOL 230W	Biology: Molecules and Cells	4
BMB 212	Elementary Biochemistry Laboratory	1
CHEM 110	Chemical Principles I	3
CHEM 111	Experimental Chemistry I	1
CHEM 112	Chemical Principles II	3
CHEM 113	Experimental Chemistry II	1
MATH 140	Calculus With Analytic Geometry I	4
NUTR 175Z	Healthy Food for All: Factors that Influence What we Eat in the US	3
NUTR 211R	Applying Biochemistry to Nutrition	1
NUTR 358	Assessment of Nutritional Status	3
NUTR 452	Nutritional Aspects of Disease	3
NUTR 490W	Nutrition Seminar	3
PHYS 250	Introductory Physics I	4
PHYS 251	Introductory Physics II	4

**Additional Courses**

CHEM 202 & CHEM 203	Fundamentals of Organic Chemistry I and Fundamentals of Organic Chemistry II	6
or CHEM 210 & CHEM 212	Organic Chemistry I and Organic Chemistry II	
MICRB 106 & MICRB 107	Elementary Microbiology and Elementary Microbiology Laboratory	4-5
or MICRB 201 & MICRB 202	Introductory Microbiology and Introductory Microbiology Laboratory	
NUTR 421	Biocultural Perspectives on Public Health Nutrition	3
or NUTR 425	Global Nutrition Problems: Health, Science, and Ethics	

**Supporting Courses and Related Areas**

Select 9 credits, in consultation with an adviser, from University-wide offerings that provide relevance to this option. Students need to complete at least three (3) credits that cover the topic of ethics. At least six (6) credits must be at the 400 level with no more than three (3) credits of NUTR 496. See program list of recommended courses. Three (3) credits may be substituted with credits earned through ROTC. 9

## General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (<https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/>) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

### Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)

- **Quantification (GQ):** 6 credits
- **Writing and Speaking (GWS):** 9 credits

### Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)

- **Arts (GA):** 3 credits
- **Health and Wellness (GHW):** 3 credits
- **Humanities (GH):** 3 credits
- **Social and Behavioral Sciences (GS):** 3 credits
- **Natural Sciences (GN):** 3 credits

### Integrative Studies

- **Inter-Domain Courses (Inter-Domain):** 6 credits

### Exploration

- **GN**, may be completed with Inter-Domain courses: 3 credits
- **GA, GH, GN, GS, Inter-Domain courses.** This may include 3 credits of World Language course work beyond the 12th credit level or the requirements for the student's degree program, whichever is higher: 6 credits

## University Degree Requirements

### First Year Engagement

All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

### Cultures Requirement

6 credits are required and may satisfy other requirements

- **United States Cultures:** 3 credits
- **International Cultures:** 3 credits

### Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

### Total Minimum Credits

A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

### Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

### Limitations on Source and Time for Credit Acquisition

The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80>)). For more information, check the Suggested Academic Plan for your intended program.