

Handbook for the BSPH Program in Nutrition

2019 ~ 2020

I. INTRODUCTION

A. Program Overview

The Bachelor of Science in Public Health (BSPH) Program in Nutrition introduces the undergraduate student to the science of nutrition in health and disease and to social and behavioral aspects of eating in the context of public and individual health. The Department of Nutrition is one of the top-ranked nutrition departments in the country. The curriculum offers a wide range of courses on the nutritional and epidemiological aspects of human diseases. A BSPH in Nutrition prepares students for graduate study in nutrition, medicine, pharmacy, or dentistry or for entry-level positions in public health and/or dietetics that do not require a registered dietitian. It also allows students to participate in nutrition research projects or explore other related areas of interest.

The BSPH Program provides:

Courses in preparation for admission into medical school, dental school, veterinary school, pharmacy school or other graduate programs.

B. Degree-Specific Competencies

Competencies define what students should know and be able to do upon completion of their degree program. Competencies guide our curriculum planning process and serve as a measure against which student achievement is assessed. Listed below are the degree-specific competencies for BSPH in Nutrition:

1. Demonstrate knowledge of nutritional biochemistry, the metabolism and function of nutrients and the nutritional components of diseases through advanced courses in nutrition.
2. Demonstrate competence in the basic public health core areas of biostatistics, environmental sciences, health policy management, health behavior and health education and epidemiology and the roles these disciplines play in the interdisciplinary field of nutrition and public health.¹
3. Describe the nutritional needs of individuals across the life cycle; the psychological, behavioral and social factors that affect food consumption and nutritional status and the programs and services available to help individuals meet their nutritional needs.
4. Apply the scientific method in the areas of nutritional biochemistry, nutritional epidemiology and intervention and policy.

¹ Students in the BSPH program in Nutrition also develop core public health competencies as described in the Gillings Schoolwide Student Handbook

C. Admission Requirements

A four-year course of study leads to the degree of Bachelor of Science in Public Health in Nutrition. Upon successful completion of freshman-sophomore courses at UNC-CH in the General College, interested students may apply to transfer to the School of Public Health to complete their final two years. Those students transferring from another institution must apply to the UNC-CH General College/College of Arts and Sciences first and complete one semester satisfactorily before applying to the School of Public Health. Electives throughout the University as well as within the School of Public Health are required. Applicants should apply in the spring of their sophomore year, or at any time after they have met the prerequisites listed below. The recommended minimum GPA for admission to the BSPH Nutrition Program is a 3.0.

Prerequisite Courses Required for Admission

BIOL 101, 101L

BIOL 252, BIOL 252L
CHEM 101, 101L
CHEM 102, 102L
CHEM 261
MATH 231¹
NUTR 240

¹ Courses in Mathematics not completed during the first two years may be taken during junior year.

D. Student Responsibilities

It is the responsibility of students majoring in Nutrition to complete and meet the minimum number of courses required for graduation. Guidance of each student regarding course selection and career options is provided by his/her faculty mentor, by departmental faculty members on the B.S.P.H. Committee, and by the Academic Coordinator. A student should plan his/her coursework with the use of this handbook prior to scheduling pre-registration appointments.

Students who wish to declare a minor and/or second major must do so through the Academic Coordinator. If a student completed this process prior to becoming a Nutrition BSPH student, they must go through the process again within the School of Public Health through the Academic Coordinator.

Grade requirements for admission and graduation:

1. In all prerequisite courses students must receive a C (not C-) or higher. If not, they must repeat the course.
2. In core SPH classes (BIOS 600, EPID 600, HBEH 600, HPM 600 and ENVR 600) – students must receive a C (not C-) or higher. If not, they must repeat the course.
3. In all other courses for the Nutrition major **including** science required courses – students must receive a C (not C-) or higher. If not, the course must be repeated.
4. In other general college courses used to complete the 120-credit hour requirement – students must receive a passing grade.

II. RESEARCH REQUIREMENTS

To enhance students' understanding of the Scientific Method and its application in Nutrition science, and also to help them decide whether a research career is something they might pursue in the future, *all* BSPH nutrition students are required to be involved in nutrition research for at least one semester – namely, the final semester in the program as the student's Capstone experience. Most students will complete 3-4 semesters of research during the program. Students may be eligible for Honors research, if they meet the eligibility guidelines. Students register for NUTR 295 (or NUTR 691/692H~Honors) under a specific faculty member section number. Each student will complete at least one and up to four semesters (3-credits each) on a research project (a total of up to 12-credit hours). In some areas of research, four semesters of research may be required to qualify for and to complete an Honors Thesis. Students are strongly encouraged to discuss the Honors Thesis requirements with their mentors during their first semester in the program.

At the time of admission to the bachelor's program, each student must find a faculty research mentor, preferably a Nutrition faculty member. If a faculty member outside of the Department of Nutrition is identified, the student should seek approval from the BSPH Committee. If approved, the student will also be assigned to a Nutrition faculty member to serve as a secondary mentor. Student and faculty communication is viewed as a mutual responsibility. The student and the mentor schedule meetings on a periodic basis. The Academic Coordinator serves as the major source of guidance regarding coursework. The faculty research mentor serves as the major source of guidance to the student in the areas of scientific course of study, research and career planning. For a

complete list of Nutrition faculty and their research, please review the faculty profiles online at <http://sph.unc.edu/nutr/unc-nutrition/nutr-our-faculty-and-staff/>.

Several avenues are available to students should a change in faculty mentor become necessary. Ideally, the student will expedite such a change by discussion with current and intended mentors. In addition, the student must consult with the chair of the departmental BSPH Committee. If this is unsatisfactory, the department chair should be consulted.

III. NUTRITION DEPARTMENT COURSE REQUIREMENTS

A. Courses to Meet School of Public Health Requirements

SPHG 351	Foundations of Public Health (3)
SPHG 352	Public Health Systems and Solutions (4)
BIOS 600	Principles of Statistical Inference (3)
EPID 600	Principles of Epidemiology (3)
Plus 3 elective courses outside the School of Public Health	

B. Department of Nutrition Required Courses

NUTR 240	Introduction to Human Nutrition (3)
NUTR 400	Introduction to Nutritional Biochemistry (3)
NUTR 600	Human Metabolism: Macronutrients (3)
NUTR 611	Nutrition Across the Life Cycle (3)
NUTR 620	Human Metabolism: Micronutrients (3)
NUTR 295¹	Undergraduate Research in Nutrition (3)
NUTR 691H*	Honors Research in Nutrition (Fall) (3)
NUTR 692H*	Honors Research in Nutrition (Spring) (3)
BIOL 202	Molecular Biology and Genetics (4)
CHEM 241 ²	Modern Analytical Methods for Separation and Characterization (2)
CHEM 241L ²	Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds (1)
CHEM 262 ²	Introduction to Organic Chemistry II (3)
CHEM 262L ²	Laboratory in Organic Chemistry (1) and Biological Compounds II (2)
PHYS 114 ²	General Physics I: For Students of the Life Sciences (4)
PHYS 115 ²	General Physics II: For Students of the Life Sciences (4)

* Required for BSPH Nutrition students planning to complete a honors thesis during their senior year.

¹ The Capstone course for the degree; can also be NUTR 692H, if completing honors thesis. All students, regardless of how many semesters of research they choose to complete, must take the research course in their final semester of the program as the Capstone course.

² These courses will meet the 3 elective course requirements if not used as General College requirements. For any semester in which a student does not participate in research (NUTR 295), another elective should be taken.

C. Example of BSPH Coursework

Junior Year

<u>Fall Semester</u>		<u>Credits</u>
CHEM 241	Modern Analytical Methods	2
CHEM 241L	Laboratory in Separation and Analytical Characterization of Organic...	1
BIOL 202	Molecular Biology and Genetics	4
EPID 600 ¹	Principles of Epidemiology	3
NUTR 295 ²	Nutrition Research	3
SPHG 351 ¹	Foundations of Public Health	<u>3</u>
	Total semester credits	16

Spring Semester

CHEM 262	Introduction to Organic Chemistry II	3
CHEM 262L	Laboratory in Organic Chemistry	1
NUTR 295 ²	Nutrition Research	3
NUTR 400	Introduction to Nutritional Biochemistry	3
SPHG 352 ¹	Public Health Systems and Solutions	<u>4</u>
	Total semester credits	14

Senior Year

<u>Fall Semester</u>	<u>Credits</u>	
NUTR 691H ²	Nutrition Research	3
NUTR 600	Human Metabolism: Macronutrients	3
NUTR 611	Nutrition Across the Lifecycle	3
PHYS 114	General Physics I: For Students of the Life Sciences	4
BIOS 600 ¹	Principles of Statistical Inference	<u>3</u>
	Total semester credits	16

Spring Semester

NUTR 620	Human Metabolism: Micronutrients	3
NUTR 692H ²	Nutrition Research	3
PHYS 115	General Physics II: For Students of the Life Sciences	4
HPM 600 ¹	Health Policy and Management (online)	3
Elective	General Elective	<u>3-4</u>
	Total semester credits	16-17

Suggested Elective Courses:

CLAS 125	Word Form and Etymology (also available as self-paced)	3
CLAS 126	Medical Word Formation and Etymology (also available as self-paced)	3
ANTH 147	Comparative Healing System	3
ANTH 470	Medicine & Anthropology	3
GEOG 445	Medical Geography	3

¹ SPH required course

² Students who do not take four semesters of research should complete their minimum required one semester during the spring of their senior year. An additional elective should be taken during semesters in which students are not registered for nutrition research.

V. UNDERGRADUATE HONORS RESEARCH ~ The Honors Thesis

For more information, please see the Honors Carolina website.

Who is eligible for the Honors Program?

The Department of Nutrition provides an opportunity for honors study for qualified students. To be eligible for admission to the Honors program, students must have, at a minimum, a cumulative grade point average of 3.3 at the beginning of their senior year and maintain the GPA throughout the major if they intend to pursue Honors. Students must also be granted signed approval by their mentor/advisor (see Academic Coordinator for appropriate paperwork). Students register for NUTR 295 (3 credits) in the first year, and then, NUTR 691/692H (3-credits) in their final two semesters while completing an Honors Thesis in Nutrition. Typically, students complete at least 3 semesters of research to complete an Honors Thesis, but exception may be possible per Faculty Mentor's and BSPH Committee's approval.

How do I register for the Honors Program credit and what is required?

Students are required to carry out a special project and prepare a thesis based on the project. Length of the honors thesis will depend on the type of project that the student is involved with. All nutrition honors theses are written as scientific manuscripts that are generally between 15-40 pages long, and in the appropriate style for the topic (e.g., nutritional biochemistry, nutrition epidemiology, or nutrition intervention and policy). An oral defense of the thesis before the Faculty Mentor and a second reader (suggested by the Faculty Mentor – see below) is required. Students may graduate from the University with "honors" or "highest honors," if they complete and successfully defend their theses.

Students who wish to complete an Honors Thesis should submit a title and aims approved by their faculty mentor to the Academic Coordinator by the summer between junior and senior year. The student and faculty mentor should select a second reader for the thesis and notify the Academic Coordinator by November of senior year. Second Readers can be other faculty members, doctoral students, or postdocs.

How many students are awarded honors each year?

Generally, most students who register for the Honors Program are awarded "honors" each year. However, a student may earn "highest honors" based on their exceptional performance on the honors thesis and presentation.

Who directs the Honors Program in the Nutrition Department?

Professor Miroslav (Mirek) Styblo, Director of the BSPH program in Nutrition, administers the Nutrition component of the Public Health Program, under the overall direction of the Assistant Dean of Student Affairs in Gillings School of Global Public Health.

When is the Honors thesis due?

Most importantly, the final thesis is due in early-April, so all students wishing to graduate with "honors" or "highest honors" must keep this timing in mind. There are also specific deadlines by the Honor's Office that can be found in the *BSPH Handbook for the Honors Thesis*. You can see the Academic Coordinator for specific deadline dates.

With whom can I do research?

Nutrition faculty profiles along with their research interests, resume, etc. can be found at:

<http://sph.unc.edu/nutr/unc-nutrition/nutr-our-faculty-and-staff/>. Additional information on faculty research and availability can be provided by the Academic Coordinator or BSPH Committee.

How do I fund Honors Thesis Research?

Undergraduate Research Awards from Honors Carolina may be used to support any legitimate cost directly connected to the undertaking of the honors project: laboratory equipment or supplies, computer software or time, costs related to field research, artistic supplies or equipment, books or periodicals not available through normal

library sources, illustrations--among others. Travel will be supported only where such travel is absolutely essential to the project and only for the actual cost of transportation. Except in unusual circumstances, individual awards will not exceed \$500. Any equipment or non-expended supplies purchased under the program become the property of the department at the conclusion of the project. University accounts will be set up for all successful applicants in their departments as the means of dispersing funds. Applications for Research Awards become available and are typically due during the month of September through the Honors Carolina Program.

Please note: Projects with an international dimension may qualify for a supplemental award of up to \$500 from The University Center for International Studies (UCIS) in addition to the Undergraduate Research Award from the Honors Office. Priority for these supplementary grants from UCIS will be given to proposals which pertain to an international topic and which involve travel either within the United States or abroad. A student must receive an Undergraduate Research Award in order to receive the supplemental award from UCIS. If a student receives both awards, the letter of notification from the Honors Office will contain that information. Because the summer can obviously be a convenient time for students to undertake a research trip, students pursuing an international topic should be encouraged to apply for this round of Undergraduate Research Awards.

The application is available on the Honors Carolina website: <http://www.honors.unc.edu>.

There are two rounds of honors research awards given during the academic year. Students are encouraged to view the Honor's website, as well as, communicate with the Academic Coordinator about specific deadlines.

Students are encouraged to apply for other research awards from the School or the University (e.g., the Summer Undergraduate Research Fellowship (SURF), which is awarded by the Office of Undergraduate Research) or from professional societies to support their research projects. The Academic Coordinator or Faculty Research Mentor will assist students in identifying and applying for these awards.



Course Plan
for the **BSPH** degree in the
Department of Nutrition
for students matriculating in Fall 2019 and thereafter

Course #	Course name	Credits Taken	Planned Term	Pertinent notes: substitutions, exemptions.*
General Education Requirements				
	<i>Please refer to Tar Heel Tracker to ensure completion of all General Education Requirements</i>			
Pre-Requisite Courses				
BIOL 101	Principles of Biology			
BIOL 101L	Principles of Biology Lab			
CHEM 101	General Descriptive Chemistry I			
CHEM 101L	General Descriptive Chemistry I Lab			
CHEM 102	General Descriptive Chemistry II			
CHEM 102L	General Descriptive Chemistry II Lab			
BIOL 252	Fundamentals of Human Anatomy & Physiology			
BIOL 252L	Fundamentals of Human Anatomy & Physiology Lab			
CHEM 261	Introduction to Organic Chemistry I			
MATH 231	Calculus of Functions of One Variable			
NUTR 240	Introduction to Human Nutrition			
SPH Core Courses				
SPHG 351	Foundations of Public Health			
SPHG 352	Public Health Systems & Solutions			
EPID 600	Principles of Epidemiology			
BIOS 600	Principles of Statistical Inference			
NUTR Courses				
NUTR 400	Introduction to Nutritional Biochemistry			
NUTR 600	Human Metabolism: Macronutrients			
NUTR 611	Nutrition Across the Lifecycle			
NUTR 620	Human Metabolism: Micronutrients			
BIOL 202	Molecular Biology & Genetics			
CHEM 241	Modern Analytical Methods for Separation & Characterization			
CHEM 241L	Lab in Separations & Analytical Characterization			
CHEM 262	Introduction to Organic Chemistry II			
CHEM 262L	Introduction to Organic Chemistry II Lab			
PHYS 114	General Physics I: For Students of the Life Sciences			
PHYS 115	General Physics II: For Students of the Life Sciences			
Research & Capstone				
NUTR 295	Undergraduate Research in Nutrition (1-4 semesters)			
NUTR 691H	Honors Research in Nutrition (Fall – only for those students completing a Senior Honors Thesis)			
NUTR 692H	Honors Research in Nutrition (Spring – only for those students completing a Senior Honors Thesis)			

Additional formal coursework				
	Total credits required for graduation = 73 for the major, 120 for the degree			

*Exemptions do not count towards total credit hours.