Graduate Student Handbook
Nutritional Sciences Graduate Program

Rutgers University

August 2024

1. OVERVIEW OF THE NUTRITIONAL SCIENCES GRADUATE PROGRAM (NSGP)

The *Nutritional Sciences Graduate Program* offers multidisciplinary training that provides a broad understanding of the field of nutrition as well as the specialized knowledge needed to conduct research in a sub-field. We have two major emphasis areas: nutritional biochemistry and physiology and applied and community nutrition. Scientists working in nutritional biochemistry and physiology conduct their research using the tools of molecular and cellular biology, biochemistry, and physiology in model systems, animal models, and humans, to understand how organisms utilize nutrients to maintain optimal health. Applied nutritionists use sociological, psychological, anthropological methods, and education theory to investigate factors that influence the nutritional status of individuals and communities.

Nutritional Sciences Graduate Program Learning Goals

- Demonstrate the ability to design and defend a scientifically sound project to advance the field of nutritional sciences.
- Attain and maintain an advanced level of knowledge in key content areas of nutritional sciences.
- Develop professional level oral and written communication skills designed to disseminate nutritional science research findings.
- Demonstrate critical thinking and the ability to critically evaluate current research and proposals in specific scientific areas related to the nutrition field.
- Conduct research independently for a successful transition into academics, industry, or government related careers.

The NSGP at Rutgers University draws its faculty from the Department of Nutritional Sciences, other Departments in the School of Environmental and Biological Sciences, other Schools at Rutgers - New Brunswick, and various academic divisions at Rutgers Biomedical & Health Sciences. Students benefit from the courses offered by all these academic units within Rutgers University.

2. GENERAL INFORMATION

This Nutritional Sciences Graduate Student Handbook supplements and expands upon the School of Graduate Studies (SGS) Policies and Procedures that are available on-line at https://grad.rutgers.edu/current-students/policies-procedures-students. This handbook does not supersede SGS Policies and Procedures nor the Rutgers University Code of Conduct available online at https://success.rutgers.edu/resource/code-student-conduct. Each student is expected to become familiar with the regulations published and referred to in this handbook.

2.1 Affiliation

The Nutritional Sciences Graduate Program is part of School 16: School of Graduate Studies. The Nutritional Sciences Graduate Program Co-Directors are Dr. Carol Byrd-Bredbenner and Dr. Tracy G. Anthony.

The Department of Nutritional Sciences is part of School 11: School of Environmental and Biological Sciences. The Chair of the Department is Dr. Joshua Miller.

You are affiliated with the Graduate Program in Nutritional Sciences, also known as the Nutritional Sciences Graduate Program, or NSGP hereafter.

2.2 Timeline

Plan ahead so you graduate in a timely fashion.

- *Doctor of Philosophy (PhD) students* usually take 4.5 to 6 years to complete their coursework, qualifying exams, dissertation proposal defense, and final dissertation defense. Qualifying exams are normally taken at the end of 2 years of study and the dissertation proposal defended at the end of 3 to 4 years of study; these must be completed successfully to move from being a doctoral student to a doctoral candidate. Doctoral students need to complete 33 coursework credits, 24 research credits, and 15 additional credits that can be either research or course credits, for a **total of 72 credits**. Up to 24 credits of coursework (not research credits) can be transferred into the program from previous graduate or dietetic internship work.
- *Master of Science (MS) students* usually take about 2 years to complete their coursework and research project. All master's students need to complete 24 course credits and 6 research credits for a **total of 30 credits**. Up to 12 coursework credits (not research credits) can be transferred into the program from previous graduate work. A total of 9 transfer credits can be awarded to students who have completed the requirements for the Registered Dietitian Nutritionist (RDN) credential.
- Sample course sequences are found in Sections 4 and 5 of this handbook.

2.3 Research Advisors

The PhD degree requires proposal and completion of a dissertation conforming to the requirements of the SGS. Dissertation completion is guided by a committee of 4 faculty, 1 of whom is the major research advisor. Three members of the doctoral dissertation committee are from the NSGP, and 1 member is outside or external to the NSGP. Both the dissertation proposal and the final dissertation are defended by oral examination by the dissertation committee with the final examination held in a public forum followed by a closed session with the dissertation committee.

The MS degree requires the completion of a research project which:

- Is conducted under the direction of a research (major) advisor.
- Is approved by a committee comprised of a Chair (typically the major advisor) and 2 other NSGP faculty members.
- Includes an introduction establishing the need for the research, a review of pertinent literature, research methods, results, discussion, and conclusions.
- The research project for the MS-DI is a critical essay based on a systematic literature search and critical analysis of a topic relevant to nutrition and is designed to support and satisfy successful completion of CRDNs for the dietetics internship verification statement.

Under certain circumstances, PhD and MS committees may have a different composition; these differences must be discussed with and approved by the NSGP Director or Co-Directors.

Research advisors help you select courses, oversee and guide your research project, and help you identify other faculty who may be invited to serve on your committee.

Selecting a research advisor should occur in the first semester for master's students and before the end of the second semester for Doctoral students. *Delaying selection of a research advisor will likely delay your graduation.*

There are over 50 NSGP faculty members; be aware some may not be available or be able to serve as a research advisor for a new graduate student in a given year. To choose a research advisor, in the first month of your first year of enrollment in the graduate program (September or January/February):

- Review faculty web pages at nutrition.rutgers.edu/faculty/grad-faculty.html and identify a few faculty who have research programs that interest you. You may also wish to discuss your proposed goals, research interests, and course needs with the NSGP Director/Co-Directors.
- Schedule meetings with NSGP faculty members to learn more about their research programs. If a program interests you, request a lab rotation 4 to 8 weeks in length. Lab rotations provide an opportunity to see if the faculty's research and mentoring style is a good match for you. Students are advised to complete at least one to two rotations before the end of your first semester is common before selecting a research advisor. Rotations may also extend into your second semester and include a third rotation if necessary.
- Doctoral students: Be sure to discuss opportunities for funding your education and research with potential research advisors. The major research advisor you choose will need to help you find funding for your stipend, tuition, and research.
- Individual Development Plans (IDP). The IDP is a tool to help guide the career training path of the student and facilitate effective mentoring and communication between the student and research advisor. The NSGP requires students to complete a graduate student progress report that includes a professional development plan yearly. This document covers a range of topics for student reflection including the following elements as outlined in the SGS Policies and Procedures (section 1.2.7): academic progress and goals, career goals, timelines, achievements, skill development, DEI activities, and ethics training. Blank and example IDP documents are available in the 'NSGP Student Resources' Canvas Sandbox. The blank document is completed by the student and signed by the research advisor. Before signing, the research advisor discusses with the student their progress and goals. The form also provides faculty advisers the opportunity for written comments. Once signed by both student and research advisor, the completed form is

submitted to the 'NSGP Student Resources' Canvas Sandbox.

Students working in a laboratory that receives funding from the National Institutes of Health also may need to complete an IDP approved for biomedical sciences. For more information see: https://grad.rutgers.edu/academics/academic-enrichment-programs/individual-development-plans Students are also encouraged to utilize the various IDP resources developed by the SGS (https://grad.rutgers.edu/academics/individual-development-plans/online-individual-development-plans) to facilitate their own career growth and development. In addition, be aware that some NSGP faculty may utilize Mentoring Agreements during the lab rotation or in general to guide expectations. Please see the following link for more information: https://research.rutgers.edu/researcher-support/research-compliance/research-integrity/responsible-conduct-research-toolkit

2.4 Registration and Course Requirements

Prior to choosing a research advisor, students should consult with the NSGP Director or Co-Directors before registering for courses. Each semester thereafter, students should consult with their major research advisors before registering for courses. Ideally, the entire graduate program course of study and allocation of course and research credits should be outlined in a table or spreadsheet by the student under the guidance of the major research advisor before the end of the student's first year of graduate study. A blank spreadsheet to help plan out the student's course of study is provided in the 'NSGP Student Resources' Canvas Sandbox.

A. Full-time Student Status

A full-time student must register for at least 9 credits per semester. There is no extra charge for credits beyond the 12-credit load; however, students cannot register for more than 16 credits without special permission from the Dean of the SGS. Students may consult with their major research advisors to take up to 16 credits while in full-time status, as this reduces tuition payments in the later phases of the study.

B. Transferring Credits

Students who have taken graduate courses equivalent to those in the NSGP curriculum may petition the NSGP Director or Co-Directors for an exemption from taking these courses and transfer credits to your graduate program of study. It is the student's responsibility to initiate this process. An exemption means you do not need to take the exempted course, but you do need to take and/or transfer graduate credits sufficient to result in the minimum of course credits required for graduation (33 credits for doctoral students and 24 for MS students).

A PhD student may transfer a maximum of 24 graduate level course credits and a MS student may transfer a maximum of 12 graduate level course credits. All course credits must be from other accredited institutions or other graduate programs at Rutgers University

to satisfy the course requirements. Those credits must have earned grades of B or higher. Students may request transfer of these courses after they have completed 9 credits at Rutgers with grades of B or higher. The Application for Transfer of Credit form is available at https://grad.rutgers.edu/academics/forms . A blank application is also available in the NSGP Student Resources Canvas Sandbox. Questions about courses eligible for transfer should be directed to the NSGP Curriculum Committee Chair, Dr. Sue Shapses.

Sample Letter for Requesting Transfer Course Credit

TO: Dr. XXX, Chair, Curriculum Committee
CC: Graduate Program Co-Directors
Dr. XXX, Student's research
Advisor FROM: XX, Graduate Student
SUBJECT: Course Transfer

I am requesting credit for 16:709:521 Community Nutrition, 75:832:504 Introduction to Biostatistics, 16:709:503 Introduction to Applied Nutrition Research from my work at XXX University. A table indicating the course equivalents at XXX and RU are below, and the appropriate syllabi are attached to the email. I am happy to provide any additional supporting information and/or documentation.

Please note that my research advisor has reviewed the course syllabi and supports this

request. Thank you for your help in this matter.

RU Course	RU Course Description	Proposed XX-Univ. Course Equivalent	XX Univ. Course Description
16:709:521 Community Nutrition	Study of nutritional aspects of public health service and community agencies and of programs designed to improve nutritional status of various population groups.	HXX 5611-Nutrition Education in the Community (3 credits)	In depth study of nutrition education information and methods in the community including the nutrition education component of school food service and other congregate meal programs.

75:832:504 Intro to Biostatistics	Statistical techniques for biomedical data. Analysis of observational studies is emphasized. Topics include measures of disease frequency and association; inferences for dichotomous and grouped case-control data; logistic regression for identification of risk factors; Poisson models for grouped data; bioassay.	PXX 6085 - Health Statistics (3 credits)	An introduction to the basic principles of inferential statistics as applied to public health. The course includes those components of biometry routinely used in public health. Prerequisite: Undergraduate course in statistics.

C. RDN Credential

Students seeking the RDN (registered dietitian nutritionist), also known as RD (registered dietitian) credential may be able to combine this with PhD or MS biochemistry/physiology or applied/community nutrition options. For more information, see https://nutrition.rutgers.edu/graduate/ms-dietetics- option/ and consult with the NSGP Director or Co-Directors.

D. Undergraduate Courses for Graduate Credits

Normally, undergraduate courses cannot fulfill graduate coursework requirements. However, approval for graduate credit can be petitioned by contacting the NSGP Director or Co-Directors and must be pre-approved prior to registration.

E. Grade Point Average Requirement

The NSGP Curriculum Committee reviews student transcripts twice a year. Those students with an overall grade point average (GPA) below 3.0, will receive an academic warning letter. Students who are unable to raise their GPA to 3.0 within two semesters, in the absence of mitigating circumstances, may be placed on academic probation and/or dismissed from the program. A course with a grade of C may count toward the graduate degree with approval of the NSGP Curriculum Committee. In no circumstance can more than 3 courses with a grade of C be counted toward the graduate degree.

F. Incomplete Grades

Failure to complete all requirements of a particular course may result in a grade of Incomplete (INC). All course work required to fulfill an Incomplete must be completed within one year. An extension of time may be requested from the SGS with the approval of the NSGP Director or Co-Directors. For a full description of the Policy on Incomplete Grades, visit https://grad.rutgers.edu/current-students/policies-procedures-students. Note that poor grades cannot be removed from the record by retaking the course and obtaining a better grade.

G. Graduate Assistantship

All students supported by a graduate assistantship (GA) must register for 6 “E” credits of Graduate Assistantship (16:709:866). Students with a GA are required to work in the laboratory or research group; thus, they cannot take as many credits as students who are self-supported. "E" credits block out the time required for the specific activity and thereby decrease the number of course or research credits a student can take. For example, a student registering for 6 E credits will be permitted to take a maximum of 10 course and research credits. (Similarly, a student registered for 3 E credits of “English as a Second Language” will be permitted only 13 course and research credits). “E” credits

do not count toward degree credits. No tuition is charged for E credits. GAs in Nutritional Sciences receive tuition remission cards.

H. Teaching Assistantship

All students supported by a teaching assistantship (TA) must register for 6 "E" credits of Teaching Assistantship (16:709:877) and follow the same registration procedure as outlined above for Graduate Assistants. "E" credits do not count toward degree credits. No tuition is charged for "E" credits. TAs in Nutritional Sciences receive tuition remission cards.

I. Graduate Fellowship

Students supported by a fellowship administered through Rutgers University, such as an Excellence Fellowship or a Presidential Fellowship, should register for zero credits of Graduate Fellowship (16:709:811); this registration merely serves as an indicator of the fellowship. Students who hold fellowships not administered through Rutgers should not register for Fellowship credits.

J. Reduced Credit Load for International Students

To comply with federal regulations, international students must register for at least 9 credits per semester, unless they have earned close to the 30 credits required for the M.S. degree or close to the 72 credits required for the PhD degree. In the latter case, the student may submit the Reduced Credit/Course Load Form to the NSGP Director or Co-Directors for approval and may be allowed to register for as few as 1 credit per semester.

International students are advised to work closely with their international advisor when considering a reduced credit load and review forms at https://global.rutgers.edu/resources-forms/visiting-students.

2.5 Guidelines On Time for Review and Assessment of Dissertations and MS Research Projects

The NSGP strives to maintain a culture of mutual respect between students and faculty members, as outlined in the Rutgers University Code of Conduct and SGS Policies and Procedures. In keeping with this, students must allow sufficient time for faculty members to review and assess their work, and faculty members must be as prompt as circumstances allow in responding to their students with such assessments.

It is the responsibility of both students and major research advisors to keep committees informed and engaged throughout the process of the student's research and to ensure that the committee is given adequate time to assess the student's research.

Research advisors should be given at least 2 weeks to provide feedback to students on dissertation proposal drafts, master's research drafts, or other manuscript drafts. Students should ask the research advisor about pending deadlines as well as consider the likely need for revisions to their scholarly works. It is recommended that initial drafts of major projects be submitted to the research advisor as soon as possible and at least 2 months prior to the final deadline so that multiple revisions are possible, as needed. A research advisor may require more time to review a document under certain conditions (e.g., including but not limited to travel, illness, vacation, university holidays, end-of-semester workload, and documents from multiple graduate students to review at the same time).

Committees should be provided with the dissertation proposal, final dissertation, final master's research project at least two weeks prior to the defense (note: some committees may request more than 2 weeks). It is the responsibility of the committee members to complete document review within this time period. Advanced feedback to the student prior to the defense date is allowed, if warranted.

Graduate students and committee members should be in regular communication with each other regarding these timelines. Students should alert the major research advisor and committee members of their intention to submit work at a certain time and committee members should indicate their expectations for the timing of their responses.

3. SEMINARS IN NUTRITIONAL SCIENCES

There are several types of seminars in Nutritional Sciences. The NSGP Faculty considers seminars to be one of the most important learning experiences in graduate education. As a scientist in academia, government, or industry, our graduates will be judged not only on the quality of their research accomplishments but on how well they communicate their scientific accomplishments to others. We have a proud tradition of teaching our student how to present excellent seminars and this manifests itself in the numerous times our students have given award-winning presentations at national meetings and how well they do when asked to present a seminar as part of the job interview process.

Nutritional Sciences Seminar (16:709:601, 1 credit and 16:709:602, 2 credits)
Small group discussion on research ethics, academic resources, policies and procedures at Rutgers University, and current nutrition research topics with emphasis on critical evaluation of primary literature, synthesis of the topic, and preparation of effective seminar presentations. These courses are required for all NSGP doctoral students and are highly recommended for all NSGP graduate students.

Department of Nutritional Sciences (DNS) Seminar Series
Weekly The DNS seminar series is an integral component of the NSGP. The DNS Seminar Series meets regularly on Wednesdays at 2:15 PM when classes are in session. *All graduate students are expected to attend.* Seminars provide a unique opportunity to learn about the newest research and network with the invited speaker as well as fellow students, faculty, and staff. Reminders for the seminars are posted and sent by e-mail. The seminar schedule for the semester is updated often at http://nutrition.rutgers.edu/seminars.html.

Doctoral and Master's Degree Defenses
Students are highly encouraged to attend all NSGP doctoral and master's defense seminars. Defense seminars will extend learning and will prepare students for their own defense seminar.

4. DOCTOR OF PHILOSOPHY (PhD Degree)

The doctoral program in nutritional sciences prepares students for careers conducting original research or serving as a nutritional sciences expert in academic settings, governmental agencies and programs, healthcare organizations, or business and industry. This degree program has two options: 1) Nutritional Biochemistry and Physiology and 2) Applied and Community Nutrition. The table below summarizes the requirements for this degree.

4.1a Summary of degree requirements for *Nutritional Biochemistry and Physiology track*

72 Credits required

- Minimum of 33 coursework credits
- Minimum of 24 research credits (maximum 39 credits)

Table 1. Required Core Curriculum Coursework for PhD in *Nutritional Biochemistry and Physiology*

Course number	Credits	Course Name
16:709:552	4	Nutrition: A Biochemical and Physiological Basis
16:709:553	4	Nutrition: A Biochemical and Physiological Basis
16:115:503 *or* 16:115:511	4 *or* 3	Biochemistry *or* Molecular Biology and Biochemistry *or Alternate Course (Table 2)**
16:115:504 *or* 16:115:512	4 *or* 3	Biochemistry *or* Molecular Biology and Biochemistry *or Alternate Course (Table 2)**
16:709:601	1	Nutritional Sciences Seminar
16:709:602	2	Nutritional Sciences Seminar
16:709:515	3	Principles of Nutrition Research
16:709:506	3	Nutritional Aspects of Disease
See Table 3 for options	3	Statistics

***Table 2. Possible Alternatives to Biochemistry (16:115:503/504) or Molecular Biology and Biochemistry (16:115:511/512).**
If substituting for ***both* 16:115:503 and 504, or 16:115:511 and 512, then choose two (2) of the courses in <u>bold underlined font</u>, or 1 *italicized* and 1 bold underline font course.**
To replace one semester of biochemistry (16:115:503 or 504 or 16:115:511 or 512~~)~~ choose any one of the courses below (*italicized* or <u>bold underline font</u>).

Course number	Credits	Course Name
<u>16:125:581</u>	**<u>3</u>**	**<u>Mammalian Physiology</u>**
<u>01:148:514</u>	**<u>3</u>**	**<u>Molecular Biology of Cells</u>**
<u>16:682:503</u>	**<u>3</u>**	**<u>Microbial Physiology</u>**
<u>16:682:501</u>	**<u>3</u>**	**<u>Microbial Life</u>**
<u>16:710:555</u>	**<u>3</u>**	**<u>Neurobiology</u>**
<u>16:761:507</u>	**<u>3</u>**	**<u>Comparative Physiology</u>**
<u>16:761:508</u>	**<u>3</u>**	**<u>Molecular and Cell Physiology</u>**
<u>16:761:510</u>	**<u>3</u>**	**<u>Cell Structure and Function</u>**
<u>16:761:513</u>	**<u>3</u>**	**<u>Cardiovascular Physiology</u>**
<u>16:761:515</u>	**<u>3</u>**	**<u>Medical Physiology</u>**
<u>16:963:512</u>	**<u>3</u>**	**<u>Integrated Organ Physiology</u>**
16:340:591	*4*	*Reproductive & Developmental Toxicology*
16:340:502	*3*	*Physiology of Reproduction*
16:340:508	*3*	*Equine Exercise Physiology*
16:340:510	*3*	*Neuroendocrinology*
11:375:510	*3*	*Environmental Microbiology*
16:400:530	*3*	*Advanced Food Sensory Science*
16:400:535	*3*	*Beneficial Microbial Food & Health*
16:572:508	*3*	*Psychophysiology in Kinesiology*
16:572:511	*3*	*Neurophysiology of Health*
16:572:512	*3*	*Advanced Applied Physiology*
16:681:576	*3*	*Microbiomes and Health*
16:710:503	*3*	*Neuroscience of Addiction – Molecular to Behavioral*
16:761:610	*3*	*Biological Biomedical and Social Aspects of Aging*
18:844:513	*3*	*Intro to Autism Spectrum Disorders*
Prior approval is required for other courses.		

Table 3. Statistics Options

Course number	Credits	Course Name
16:960:586	3	Interpretation of Data I
16:960:590	3	Design of Experiments
16:960:563	3	Regression Analysis
16:960:584	3	Biostatistics I - Observational Studies
PHCO 0504	3	Introduction to Biostatistics
15:291:531,532	6	Statistical Methods I and II (both must be taken to fulfill NSGP requirement)
16:115:557	3	Statistics in Biomedical Research
16:125:578	3	Interdisciplinary Biostatistics Research Training

16:960:501	3	Statistical Training for Research Workers
01:960:401 *	3	Basic Statistics for Research
01:960:484 *	3	Basic Applied Statistics
01:960:490 *	3	Intro to Experimental Design

Additional information on these courses is provided on the NSGP webpage:
https://nutrition.rutgers.edu/graduate/doctorate/

Table 4. Elective Coursework for *Nutritional Biochemistry and Physiology*

Course number	Credits	Course Name
Free Electives (selected courses, many other options possible)		
16:115:556	1	Ethical Science Conduct (recommended for all; required for any student working in a lab receiving NIH funding)
16:709:531	3	Nutritional Epidemiology
16:709:521	3	Community Nutrition
16:709:621	1	Advanced Topics: Metabolic Regulation
16:709:622	1	Advanced Topics in Mineral Nutrition
16:709:621	1	Advanced Topics: Molecular Nutrition
16:148:514	3	Molecular Biology of Cells
16:148:503	3	Cellular and Molecular Signaling
16:148:504	3	Developmental Biology
16:148:555	4	Cell Biology and Histology
16:148:591	3	Immunology: Cellular and Molecular
01:146:450 *	3	Endocrinology
16:572:504	3	Exercise and Sport endocrinology
18:821:568	3	Eating and Weight Disorders
16:681:502	3	Molecular Genetics
16:681:543	3	Current Concepts of Immunology
16:681:548	3	Cell Surface Receptors
16:681:585	3	Cancer Molecular Biology
16:718:581	2	Hormones and their Receptors
16:718:604	2	Signal Transduction
16:765:540	3	Natural Products & Human Health
16:400:513	3	Food Science Fundamentals I
16:400:514	3	Food Science Fundamentals II
16:400:610	3	Nutrigenomics and Nutraceuticals
16:400:603	1	Special Topics in Food Science
Molecular Biosciences courses	1-3	https://molbiosci.rutgers.edu/current-students/courses

Table 5. Sample Program of Study for PhD in *Nutritional Biochemistry and Physiology*

Year 1	
Fall	**Spring**
709:553 Nutrition: Biochemical & Physiological Basis 1	709:552 Nutrition: A Biochemical and Physiological Basis
16:709:601 Nutritional Sciences Seminar	709:602 Nutritional Sciences Seminar
Biochemistry *or* Molecular Biology and Biochemistry *or* *Alternate Course* (Table 2) *	Biochemistry *or* Molecular Biology and Biochemistry *or* *Alternate Course* (Table 2)
115:556 Ethical Scientific Conduct	
Year 2	
709:506 Nutritional Aspects of Disease (when offered)	Statistics (Table 3) or Elective (Table 4)
Statistics (Table 3) or Elective (Table 4)	16:709:515 Principles of Nutrition Research
16:709:701 Research in NS	16:709:702 Research in NS
Years 3+	
Electives (Table 4)	Electives (Table 4)
16:709:701 Research in NS	16:709:702 Research in NS

* Options for physiology courses, see Table 2.
** Options for statistics courses, see Table 3.

4.1b. Summary of degree requirements for *Community and Applied Nutrition track*

72 Credits Required

- Minimum of 33 coursework credits
- Minimum of 24 research credits (maximum 39 credits)

Table 6. Required Core Curriculum Coursework for PhD in *Community and Applied Nutrition* track

Course number	Credits	Course Name
16:709:601	1	Nutritional Sciences Seminar
16:709:602	2	Nutritional Sciences Seminar
16:709:620	2-3	Advanced Topics in Nutritional Sciences
16:709:521	3	Community Nutrition
16:709:526*	3	Health Promotion in Nutrition & Dietetics II
16:709:552	4	Nutrition: A Biochemical and Physiological Basis
16:709:553	4	Nutrition: A Biochemical and Physiological Basis
See Table 3 for options	6	Statistics (choose two courses)
Guided Electives (students choose two courses)		
16:709:515	3	Principles of Nutrition Research
16:709:530	3	Nutrition Epidemiology
16:709:524	3	Health Promotion in Nutrition & Dietetics I

*Students taking 16:709:602 and 16:709:515 may opt to take 16:709:625 (1 credit) on Behavior Change Theories.

Table 7. Free Elective Coursework for PhD in *Community and Applied Nutrition* track

Course number	Credits	Course Name
Nutrition		
16:709:506	3	Nutritional Aspects of Disease
16:709:503	3	Introduction to Applied Research
16:709:508	3	Medical Nutrition Therapy
16:709:510	2	Advanced Topics in Disease Prevention
16:709:818	1-12	Dietetics Supervised Practice
Anthropology/Culture		
16:070:503	3	Social/Cultural Anthropology
16:070:546	3	Medical Anthropology
16:070:561	3	Human Behavior Ecology
16:350:512	3	Cultural Studies
16:450:508	3	Environmental Problems in Developing Countries
Communication		
17:194:510	3	Communication and Society
17:194:546	3	Social Media
17:194:548	3	Communication Ethics
17:194:560	3	Health Communications
17:194:561	3	Topics in Communication & Health
Public Health		
75:832:501	3	Health Systems & Policy
75:832:502	3	Principles and Methods of Epidemiology
75:832:505	3	Social and Behavioral Health Sciences
75:832:524	3	Leadership and Management Essentials for Public Health
75:832:651	3	Public Health Ethics and Law
75:832:653	3	Health Behavior & Policy Research Design
75:832:655	3	Health Politics & Policy
75:832:600	3	Program Planning and Evaluation
75:832:664	3	LGBTQ Health and Health Disparities
75:832:665	3	Health Care Economics
75:832:667	3	Public Health Risk Communication
75:832:672	3	Introduction to Global Public Health
75:832:674	3	Global Food System & Policy
75:832:677	3	Global Food & Culture
75:832:678	3	Maternal & Child Health
Food Science		
16:400:513	3	Food Science Fundamentals I
16:400:514	3	Food Science Fundamentals II
16:400:530	3	Advanced Food Sensory Science
Psychology		
16:830:506	3	Social Psychology
16:830:508	3	Research Methods in Social Psychology
16:830:534	3	Psychology of Decision Making

16:830:560	3	Emotion and Motivation
16:830:577	3	Health Psychology
16:830:612	3	Seminar: Social Psychology
16:830:620	3	Seminar: The Dynamics of Small Groups
Sociology		
16:920:523	3	Sociology of Health
16:920:524	3	Sociology of Organization

Table 8. Sample Program of Study for PhD in *Community and Applied Nutrition*

FALL			SPRING		
Year 1					
709:553	Nutrition: Biochemical & Physiological Basis 1	(4)	709:552	Nutrition: Biochemical & Physiological Basis 2	(4)
709:526	Health Promotion in Nutrition & Dietetics 2	(3)	709:521	Community Nutrition	(3)
	Guided Elective*	(3)			
709:601	Nutrition Seminar	(1)	709:602	Nutrition Seminar	(2)
Year 2					
	Statistics**	(3)		Electives	(3)
709:504	Seminar in Nutrition Education	(1)		Statistics**	(3)
	Guided Elective*	(3)	709:702	Research in NS	(4)
	Elective or Research in NS	(3)			
Year 3					
	Electives		709:701	Research in NS	
709:701	Research in NS		709:702	Research in NS	
709:504	Seminar in Nutrition Education	(1)			
Year 4+					
	Electives			*Electives*	
709:701	Research in NS		709:702	Research in NS	

Italicized courses are strongly encouraged.
*Students choose at least 2 of these courses.
****** Options for statistics courses, see Table 3.

4.2 Admission to Doctoral Candidacy

To be granted Doctoral Candidacy status, NSGP doctoral students must satisfactorily complete a two-part Qualifying Exam that consists of Part 1: a written qualifying examination and Part 2: an oral dissertation proposal defense. An application for Admission to PhD candidacy must then be completed (**https://grad.rutgers.edu/academics/forms; download 'Doctoral Qualifying Examination Form'; guidance also available in NSGP Student Resources Canvas Sandbox**) and signed by the dissertation committee members (see section 5.4 below) and the NSGP Director or Co-Directors, and filed with the SGS.

A. Part 1 - Written Qualifying Exam for Doctoral Students

The written portion of the Qualifying Examination is administered by the NSGP Curriculum Committee to ensure students have acquired sufficient mastery of the nutritional sciences subject matter and are intellectually prepared to begin doctoral dissertation research.

Students normally take the written qualifying examination at the end of their second year of study, after they have taken a majority of the required NSGP coursework and are not on academic probation. Students who entered the doctoral program with an advanced graduate degree and are in good academic standing may petition the NSGP Executive Committee to take the written exam earlier.

The Nutritional Sciences Curriculum Committee is responsible for the administration of the qualifying exam for doctoral students. Normally, the written qualifying exam is administered once per year, usually during the summer. However, this administration may vary based on student and NSGP Curriculum Committee needs. Preparatory related readings for the written qualifying exam are usually made available to students approximately 4 weeks prior to the scheduled administration date for the written qualifying exam.

Each year, a format like the following is used for the qualifying exam to assess mastery of nutritional sciences subject matter. Each student is provided up to eight (8) sets of readings to study (each set typically contains up to five (5) research articles or other resources). The readings are provided approximately 4 weeks before the exam. Normally, students answer a minimum of five questions from a selection of questions provided by the Curriculum Committee (i.e., one question per set of readings). The exam is organized into two pools of questions: common core nutritional sciences and track-specific (i.e., applied/community or biochemistry/physiology) questions. Within each pool, there are two types of questions: knowledge-based and data interpretation. Of the five questions selected, at least 2 will be from the common core pool and at least 2 will be from the track-specific pool. Additionally, of the selected questions, at least 2 choices will be knowledge-based and at least 2 choices will be data interpretation. Students have about 8 hours to complete the exam in a proctored setting without assistance (i.e., closed book and no notes, except for questions that in the directions provide additional resources).

Exam answers are graded by the NSGP faculty normally within 3 weeks of completion of the exam. Students must pass all 5 questions to be admitted to doctoral candidacy. A student who does not meet expectations for more than 2 questions will be asked to retake the qualifying exam the following year. A student who does not meet expectations for 1 or 2 questions has the opportunity to remediate the question(s) following communication of the exam outcome and subsequent instructions. For students who retake the written qualifying exam, the process follows the same procedures and rules as the first attempt. A student who does not meet expectations on the second attempt is a final failure and the student shall be referred to the Dean of the SGS for further action.

B. Part 2 - Dissertation Proposal Defense

Doctoral students are required to satisfactorily defend their proposal to their dissertation committee (see 4.4 below) before being admitted to PhD candidacy.

4.3 PhD Dissertation Committee

A PhD student, in consultation with his/her research advisor, must form a dissertation committee consisting of 4 or more members. Students are advised to form the committee early so that the members can provide input for the research project.

There are two components to the defense of the dissertation: defense of the *proposal* and defense of the *completed* dissertation. The doctoral committee consists of a minimum of four members. The composition of doctoral dissertation committees must be endorsed by the NSGP Director or Co-Directors.

The committee chair must be a full member of the NSGP. Two committee members must be full or associate members of the NSGP (http://nutrition.rutgers.edu/faculty/grad-faculty.html). For the *proposal* defense, the remaining (fourth) committee member could be either a full or associate member of the NSGP or an outside member. For the defense of the *completed* dissertation, the remaining (fourth member) must be outside the NSGP.

The outside member, approved by the NSGP Director or Co-Directors and approved by the SGS, must have research and/or academic credentials appropriate for such committee service. The student's major research advisor should work with the student to submit the outside appointment request, in writing, to the NSGP Director or Co-Directors and provide a Curriculum Vitae or Biographical Sketch that includes degrees received, dates, institution names, and a list of publications. Students are personally responsible for requesting participation by each committee member selected.

Students who choose to include four members from NSGP Faculty for the *proposal* defense will have a five-person committee for the *completed* dissertation defense. Students wishing to keep their completed dissertation defense to four members must identify their external committee member and get approval of this individual's service before the *proposal* defense.

4.4 Dissertation Defense (Final Examination)

A student typically defends his or her dissertation in the last semester of graduate study, The student is required to provide a copy of the dissertation to the committee at least two weeks before the defense date. The student should provide sufficient time between the scheduled

defense date and the SGS October, January, or May dated degree deadline dates to make any additions or changes requested by the thesis committee.

The final defense examination must be advertised to the public on bulletin boards and via electronic listservs. On the scheduled date, the student presents a seminar (open to the public) focusing on dissertation research. After the seminar, the student meets with the committee who probe the student's understanding of the research conducted. The student is informed whether he or she has passed the defense examination immediately after its completion. Required changes in the dissertation, if any, will also be made at this time. If the student fails the examination, the reasons for the decision are given at this time. Upon completion of the final examination, the members of the committee sign the Application for Doctoral Degrees form (https://grad.rutgers.edu/academics/forms) in Black ink indicating whether the student has passed or failed the examination. The NSGP Director or one of the Co-Directors signs the form once revisions, if any are required, have been made.

5. MASTER OF SCIENCE (M.S. Degree)

This degree program has three options: Nutritional Biochemistry and Physiology, Applied and Community Nutrition, and Dietetics. The table below summarizes the requirements for this degree's Nutritional Biochemistry and Physiology, Applied and Community Nutrition options. For details on the Dietetics option, please refer to the Individualized Supervised Practice Pathway (ISPP) Handbook.

5.1.a. Summary of coursework requirement for NSGP MS in *Nutritional Biochemistry and Physiology* track

30 Credits Required

- Minimum of 24 coursework credits
- Minimum of 6 research credits

Table 9. Required Core Curriculum Coursework for MS in *Nutritional Biochemistry and Physiology* track

Course number	Credits	Course Name
16:709:552	4	Nutrition: A Biochemical and Physiological Basis *
16:709:553	4	Nutrition: A Biochemical and Physiological Basis *
16:115:503 *or* 16:115:511	4 *or* 3	Biochemistry *or* Molecular Biology and Biochemistry *or Alternate Course* (Table 2)
16:115:504 *or* 16:115:512	4 *or* 3	Biochemistry *or* Molecular Biology and Biochemistry *or Alternate Course* (Table 2)
16:709:601	1	Nutritional Sciences Seminar
See Table 3 for options	3	Statistics

Table 10. Sample Program of Study for NSGP MS in *Nutritional Biochemistry and Physiology* track

Masters (Biochem and Physiology)	
Fall	**Spring**
709:553 Nutrition: Biochemical & Physiological Basis 1	709:552 Nutrition: A Biochemical and Physiological Basis
16:709:601 Nutritional Sciences Seminar	709:602 Nutritional Sciences Seminar
Biochemistry or Molecular Biology (Table 9) or Alternate Course (Table 2)	Biochemistry or Molecular Biology (Table 9) or Alternate Course (Table 2)
Ethical Scientific Conduct	
Fall	**Spring**
Statistics (see Table 3 for options)	Electives
Electives	709:702 Research in NS
709:701 Research in NS	

5.1.b. Summary of coursework requirement for NSGP MS in *Applied and Community Nutrition* track

30 Credits Required

- Minimum of 24 coursework credits
- Minimum of 6 research credits
-

Table 11. Required Core Curriculum Coursework for NSGP MS in *Community and Applied Nutrition* track

Course number	Credits	Course Name
16:709:552*	4	Nutrition: A Biochemical and Physiological Basis
16:709:553*	4	Nutrition: A Biochemical and Physiological Basis
16:709:524	3	Health Promotion in Nutrition and Dietetics I
16:709:521	3	Community Nutrition

Table 12. Elective Coursework for NSGP MS in *Community and Applied Nutrition* track

Course number	Credits	Course Name
Guided Electives – Statistics (students must choose one course)		
		See Table 3
Guided Electives (students must choose two courses)		
16:709:503	3	Introduction to Applied Nutrition Research
16:709:530	3	Nutrition Epidemiology
16:709:526	3	Health Promotion in Nutrition and Dietetics II
Free Electives (selected courses, other options possible)		
		See Table 7

Table 13. Sample Program of Study for NSGP MS in *Community and Applied Nutrition* track

FALL			SPRING		
Year 1					
709:553	Nutrition: Biochemical & Physiological Basis 1	(4)	709:552	Nutrition: Biochemical & Physiological Basis 2	(4)
709:526	Health Promotion in Nutrition & Dietetics 2	(3)	709:521	Community Nutrition	(3)
	Guided Elective*	(3)		Guided Elective*	(3)
	Ethical Scientific Conduct	*(1)*			
Year 2					
	Statistics**	(3)	709:702	Research in NS	(3)
709:701	Research in NS	(3)			

Italicized courses are strongly encouraged electives.
*Students choose at least 2 of these courses.
****** Options for statistics courses, see Table 12.

5.2 MS Defense

The Master's defense is similar to the doctoral dissertation defense but typically shorter due to the more limited scope of the research project. Please refer to section 4.4 in this handbook.

5.3 Transferring from the MS program to the PhD

Prior to completing the master's degree, students can petition the NSGP Curriculum Committee to change their status from the MS to the PhD program. The petition includes, at a minimum, a memo to the Curriculum Committee requesting the change and a letter from the student's major research advisor supporting the petition. If the petition is granted, the student must complete an Application for Change of Degree Status (https://grad.rutgers.edu/academics/forms); this application requires the consent of the NSGP Director or Co-Directors.

Students who have already completed the MS degree in the Rutgers NSGP who wish to continue their studies as a doctoral student must complete an Application for Change of Degree Status (https://grad.rutgers.edu/academics/forms) to enter the PhD program; this application requires the consent of the NSGP Director or Co-Directors.

6. PROCEDURES IF THINGS GO WRONG

Problems and concerns should be discussed with the NSGP Director or co-Directors who may then review them with the NSGP Faculty, and where applicable, with the Department of Nutritional Sciences Chair. Students having differences with other students or with a faculty member should speak in confidence with the Graduate Director or one of the Co-Directors, Department Chair, or with any faculty member.

6.1 Change of Major Research Advisor or Committee Membership

Should a student's major research advisor leave the University, the student must consult with the Graduate Director concerning the appointment of a new major research advisor. After retirement, a major professor, as a Professor Emeritus, can serve as the major research advisor (chair) of a committee established prior to retirement. Emeritus professors may serve on new committees as "additional" members only (that is, they do not count toward the number of program or outside members required.)

Students may request a change in the major research advisor and/or faculty membership on their committee in consultation with their major research advisor and/or the NSGP Director or Co-Directors. Substitutions in committee membership require approval of the NSGP Graduate Director or Co-Directors and will occur only if a member is unable to serve or if a student's research topic changes, requiring a new research advisor and/or modification in the committee. In cases other than these, approval for change in committee membership rests with the Dean of the SGS.

6.2 Extension of Time Request

Requests for extension of the deadline for satisfying the PhD qualifying examination requirements must be made in writing to the chair of the student's research advisor and committee with a copy to the NSGP Director or Co-Directors. Pertinent forms must be filed with the School of Graduate Studies (https://grad.rutgers.edu/academics/forms).

6.3 Complaints Concerning Grades

Complaints concerning grades or other evaluations should be addressed to the faculty members(s) awarding the grade. If the complaint is not resolved satisfactorily between the student and the faculty member(s), the student may appeal in writing to the NSGP Director or Co-Directors.

6.4 Other Issues

Other student appeals and complaints may be addressed to the NSGP Director or Co-Director, who will consult with all parties involved and propose a resolution to the problem. If this informal mediation is unsuccessful, the matter may be referred to the NSGP Executive Committee for a formal review and discussion with NSGP Faculty. Students may appeal decisions of the NSGP Faculty with the SGS Appeals Committee as outlined in the SGS bylaws.

7. OTHER ACADEMIC SUPPORTS AND OPPORTUNITIES

7.1 Networking

Be sure to take advantage of opportunities to get to know as many Nutritional Sciences grad students and faculty as possible. *Networking pays off!* Department seminars (see Section 3) and the ***Nutritional Sciences Graduate Student Organization (NS GSO)*** offer excellent networking opportunities. The NS GSO provides opportunities for networking, leadership skills, and academic development. Watch the nutri_grad@email.rutgers.edu listserv for announcements.

7.2 Academic Integrity

Rutgers takes academic integrity very seriously. Be sure to review the Rutgers Academic Integrity Policy and Code of Student Conduct (academicintegrity.rutgers.edu/). Some reliable sources to help you build your knowledge of academic integrity and plagiarism are:

http://academicintegrity.rutgers.edu/
http://tap.rutgers.edu/academic-integrity.php
http://tlt.psu.edu/plagiarism/student-tutorial/defining-plagiarism-and-academic-integrity/
http://www.library.illinois.edu/learn/research/academicintegrity.html
http://library.camden.rutgers.edu/EducationalModule/Plagiarism/citeisright.html

7.3 Library

A key to success in graduate school is having ***excellent*** library skills. Plan to meet with a librarian early in your first semester to learn how to best use the extensive RU library system for your coursework and research. Check www.libraries.rutgers.edu for more information.

7.4 Inter-University Doctoral Consortium (IUDC)

The IUDC is open to doctoral students and provides opportunities to take courses at 8 other local institutions. Learn more at: http://gsnb.rutgers.edu/academics/inter-university-doctoral-consortium

7.5 Your Health

- Student Health Insurance: See Health Insurance for Graduate Students form at https://grad.rutgers.edu/academics/forms for more information.
- Psychological Services: See rhscaps.rutgers.edu/ for more information.
- **Student-Wellness Services:**

Service	Description	Contact Information
Student Accommodations	If you are a student in need of accommodations, please register with the **Office of Disability Services** in order to initiate the accommodations process. Please present your letter of accommodation to your instructor during the first week of the semester. Please note that accommodations are not retroactive.	(848) 445-6800 Lucy Stone Hall, Suite A 145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 https://ods.rutgers.edu/

Just In Case Web App	Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.	http://health.rutgers.edu/medical-counseling-services/counseling/caps-next-step/
Counseling, ADAP & Psychiatric Services (CAPS)	CAPS is a university mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.	(848) 932-7884 17 Senior Street, New Brunswick, NJ 08901 www.rhscaps.rutgers.edu/ Medical Services: http://health.rutgers.edu/medical- counseling-services/medical/ Counseling Services: http://health.rutgers.edu/medical-counseling-services/counseling/
Violence Prevention & Victim Assistance (VPVA)	The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling, and advocacy for victims of sexual and relationship violence and stalking to students, staff, and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.	(848) 932-1181 3 Bartlett Street New Brunswick, NJ 08901 www.vpva.rutgers.edu/
Scarlet Listeners	Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.	(732) 247-5555 scarlet.listeners@gmail.com https://scarletlisteners.wixsite.com/scarletlisteners
		Last Updated: 7-26-2023

7.6 Future Employment

To explore options for using your graduate degree in biomedical careers, visit the Rutgers iJobs office: https://grad.rutgers.edu/professional-development/biomedical-career-development

7.7 Be Proactive

If you have questions or concerns, seek answers and advice! Check the program website (nutrition.rutgers.edu/) or the SGS website (https://grad.rutgers.edu/). Talk to more advanced graduate students, faculty, staff, or the professionals at the School of Graduate Studies offices. Also review the Best Practices and Mentoring in Doctoral Education document at https://gsnb.rutgers.edu/resources/overview.

7.8 Code of Responsible Conduct

The SGS Code of Responsible Conduct and Professionalism in Graduate Education for faculty, students, mentors, and mentees.

We expect and encourage:

- Honesty and integrity

- Respect and tolerance
- Sensitivity to differences among individuals
- Professionalism
- Attention to goals and responsibilities
- Timely and constructive feedback
- Acceptance of constructive feedback

Inappropriate behaviors:
- Mistreatment, abuse, bullying, or harassment, whether by actions or language
- Unprofessional criticism
- Requests for personal services
- Assigning tasks as punishment or retribution
- Sexual assault or sexual harassment
- Discrimination
- Indifference to inappropriate behaviors that are witnessed

Resources:
- SGS Problem Resolution: http://gsnb.rutgers.edu/student-services/problem-resolution
- Code of Student Conduct: http://studentconduct.rutgers.edu/disciplinary-processes/universitycode-of-student-conduct/
- Office of Violence Prevention and Victim Assistance: http://vpva.rutgers.edu/
- Title IX, to report complaints http://compliance.rutgers.edu/title-ix/
- CAPS: https://sasundergrad.rutgers.edu/academic-standing/student-services/1895-caps
- University ethics and compliance: https://uec.rutgers.edu/programs/ethics/

For more information visit: https://grad.rutgers.edu/current-students/policies-procedures-students

SGS Committee on Responsible Conduct and Professionalism in Graduate Education Susan Albin, Joan Bennett, Beth Leech, Diana Sanchez, Kristen Syrett, Nancy Walworth

Approved by the SGS Executive Committee, December 2018