

**Graduate Student Handbook  
Nutritional Sciences Graduate Program**

**Rutgers University**

**June 2022**

## 1. OVERVIEW OF THE NUTRITIONAL SCIENCES GRADUATE PROGRAM

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 Graduate Program in Nutritional Sciences at Rutgers draws its faculty from the Departments of Nutritional Sciences, Animal Sciences, Food Sciences, and Human Ecology at the School of Environmental and Biological Sciences of Rutgers University, other divisions of Rutgers University, and Rutgers Biomedical & Health Sciences. Students also benefit from the courses offered in related departments in other divisions of Rutgers University and Rutgers Biomedical & Health Sciences.

## 2. GENERAL INFORMATION

This Nutritional Sciences Graduate Student Handbook supplements and expands upon the official regulations of the School of Graduate Studies (SGS) that are summarized in the opening pages of the SGS Catalog, which is available on-line at [catalogs.rutgers.edu/generated/nb-grad\\_current/](http://catalogs.rutgers.edu/generated/nb-grad_current/). This handbook does not supersede School of Graduate Studies regulations or policies. Each student is expected to become familiar with the regulations published in the Nutritional Sciences Graduate Student Handbook and the SGS Catalog.

### 2.1 Affiliation

The Graduate Program in Nutritional Sciences, is part of School 16: School of Graduate Studies. The Nutritional Sciences Graduate Program Director is Dr. Carol Byrd-Bredbenner.

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.

### 2.2 Timeline

Plan ahead so that you can graduate in a timely fashion.

- *Doctoral students* usually take 4.5 to 6 years to complete their coursework, qualifying exams, and dissertation. 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 can be transferred into the program from previous graduate or dietetic internship work).
- *Master's students* usually take about 2 years to complete their coursework and thesis. All Master's students need to complete 24 course credits and 6 research credits for a total of 30 credits (up to 6 credits can be transferred into the program from previous graduate or dietetic internship work).
- Sample course sequences are found in Sections 4 and 5 of this handbook.

### 2.3 Advisors for your thesis or dissertation

The **Doctoral dissertation** is guided by a committee of 4 faculty, 1 of whom is the research advisor. Three members of the doctoral dissertation committee are from the Nutritional Sciences Graduate Program and 1 member is external to the Nutritional Sciences Graduate Program.

The Nutritional Sciences Graduate Program **master's degree has 2 research options:** Thesis and Critical Essay.

**Both the thesis and essay are**

- conducted under the direction of a research mentor (major advisor)
- approved by a committee comprised of the research mentor (who is typically the Committee Chair) and 2 other nutritional sciences graduate program faculty

- **Thesis option:** requires the writing of a thesis conforming to the requirements of the School of Graduate Studies. It includes an introduction establishing the need for the research, a review of pertinent literature, research methods, results, discussion, and conclusions. The thesis is defended in a public forum.
- **Critical Essay option:** requires the writing of an analysis of a topic relevant to nutrition. The critical essay (using a journal format such as literature review, synopsis, discussion, and conclusion) is based on a literature review and summarizes the current state of knowledge in a specific area. The essay is orally defended before the thesis advisor and committee members.

Under certain circumstances, doctoral and masters committees may have a different composition; these differences must be discussed with and approved by the Nutritional Sciences Graduate Program Director.

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 no later than the middle of the second semester for Doctoral students. *Delaying selection of a research advisor will likely delay your graduation.*

There are approximately 50 faculty members in the Nutritional Sciences Graduate Program; some are more active in mentoring graduate students than others. To choose an 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](http://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 Graduate Director.
- send notes to the faculty members to schedule a meeting to learn more about their programs. If a program interests you, by your second month of enrollment, set up a brief rotation (4 to 8 weeks) to work with them. The rotation should give you an opportunity to see if the faculty's research is a good match for you. Doing 2 rotations before the end of your first semester is common before selecting an advisor. Rotations may also extend into your second semester.
- Doctoral students: Be sure to discuss opportunities for funding your education and research with potential research advisors. The advisor you choose will need to help you find funding for your stipend, tuition, and research.

## 2.4 Registration and Course Requirements

Prior to choosing an advisor, students should consult with the Graduate Program Director before registering for courses. Each semester thereafter, students should consult with their major advisors before registering for courses. Ideally, the entire graduate program course of study should be outlined by the student under the guidance of the major advisor before the end of the student's first year of graduate study.

### 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 Graduate School. Students may consult with their 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 Nutrition Sciences Graduate Program may petition the Graduate Director 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 Master's students). A template for requesting credit transfer follows.

A Ph.D. student may transfer a maximum of 24 graduate level course credits and a master's 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 [gsnb.rutgers.edu/resources/graduate-students-forms](http://gsnb.rutgers.edu/resources/graduate-students-forms). Questions about courses eligible for transfer should be directed to the Nutritional Sciences Graduate Program Curriculum Committee Chair.

## **C. RDN Credential**

Students seeking the RDN (registered dietitian nutritionist) credential may be able to combine this with PhD or MS biochemistry/physiology or applied/community nutrition options. For more information, consult with the Graduate Program Director.

### **Sample Letter for Requesting Transfer Course Credit**

TO: Dr. XXX, Chair, Curriculum Committee

CC: Graduate Program Co-Directors

Dr. XXX, Student's 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 advisor has reviewed the course syllabi and supports this request.

Thank you for your help in this matter.

| <b>RU Course</b>                        | <b>RU Course Description</b>  | <b>Proposed XX-<br/>Univ. Course<br/>Equivalent</b>                    | <b>XX Univ. Course Description</b>   |
|---|---|--|--|
| 16:709:521<br>Community<br>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-<br>Nutrition<br>Education in<br>the Community<br>(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<br>Intro to<br>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 -<br>Health<br>Statistics (3<br>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. |

**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 Graduate Program Director, and must be pre-approved prior to registration. In order to get graduate credit, such courses must be preceded with a “G” prefix during registration.

**E. Grade Point Average Requirement**

The Nutritional Sciences Graduate Program Curriculum Committee reviews student transcripts twice a year. Those students with 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 Nutritional Sciences Graduate Program Curriculum Committee. In no circumstance can more than 3 courses with a grade of C be accepted.

**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 School of Graduate Studies with the approval of the Nutritional Sciences Graduate Program Director. For a full description of the Policy on Incomplete Grades, visit [http://gsnb.rutgers.edu/sites/gsnb/files/gsnb\\_handbook.pdf](http://gsnb.rutgers.edu/sites/gsnb/files/gsnb_handbook.pdf). 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 Ph.D. degree. In the latter case, the student may submit the Reduced Credit/Course Load Form to the Graduate Director 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

[http://globalservices.rutgers.edu/content/Forms/Registered\\_F-1\\_and\\_J-1\\_Students.html](http://globalservices.rutgers.edu/content/Forms/Registered_F-1_and_J-1_Students.html).

**K. Guidelines On Time For Review And Assessment Of Qualifying Exams, Theses And Dissertations**

The Nutritional Sciences Graduate Program strives to maintain a culture of mutual respect between students and faculty members, as is expected of all graduate programs within the School of Graduate Studies. In particular, 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 students and 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 final product before it is defended.

Advisors should be given at least 2 weeks to provide feedback to students on qualifying exams and proposals. Students should ask the advisor about pending deadlines as well as take into account the likely need for revisions to their theses, dissertations, and other scholarly works. It is recommended that initial drafts of major projects be submitted to the advisor as soon as possible and at least 2 months prior to the final deadline so that multiple revisions are possible, as needed. A faculty advisor may require more time to review a document under certain conditions (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 theses and dissertations at least two weeks prior to the defense (note some committees may request more than 2 weeks). It is the responsibility of the faculty members to complete the review within this time-period. Advanced feedback to the student prior to the defense date is allowed, if warranted.

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



### **3. SEMINARS IN NUTRITIONAL SCIENCES**

There are several types of seminar in Nutritional Sciences. The Graduate Program Faculty considers these to be one of the most important learning experiences in a student's 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 them to others. We have a proud tradition of teaching our students 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.

#### **3.1 Nutritional Sciences Seminar (16:709:601, 1 credit)**

Seminar presentations on current nutrition research topics with emphasis on critical evaluation of primary literature, synthesis of the topic, and preparation of effective seminar presentations. This 1-credit course is required for all doctoral students in Nutritional Sciences biochemistry and physiology track and is highly recommended for all Nutritional Sciences graduate students.

#### **3.2 Weekly Seminar in Nutritional Sciences Department**

Weekly seminar is an integral component of the Nutritional Sciences Graduate Program. Seminar meets regularly on Wednesdays at 2:30 PM when classes are in session. All graduate students are expected to attend. Seminars provide a great opportunity to network with fellow students, faculty, and guest speakers to learn about new research. 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>.

#### **3.3 Master's and Doctoral Student Defenses**

Students are highly encouraged to attend all student thesis defense seminars in the Nutritional Sciences Graduate Program. Defense seminars will extend learning and will prepare students for their own thesis defense seminar.

#### 4. DOCTOR OF PHILOSOPHY (Ph.D. Degree)

The doctoral program prepares students for careers conducting original research in nutritional sciences in academic, governmental, health-care, or industrial settings. This degree program has two options: Nutritional Biochemistry and Physiology, and Applied and Community Nutrition. The table below summarizes the requirements for this degree.

##### 4.1a Summary of degree requirements for Nutritional Sciences Doctoral program: *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 Nutritional Sciences *Biochemistry and Physiology* Doctoral Track

Summary of coursework requirement for Nutritional Sciences Doctoral program: **33 coursework credits and a minimum of 24, but up to 39, research credits for a total of 72 credits required.** Courses required for an **M.S. degree** are in **bold** text in the tables below; 24 coursework credits and 6 research credits required.

**Table 1. Required Core Curriculum Coursework**

| 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 <i>or</i><br>16:115:511 | 4 <i>or</i><br>3 | Biochemistry <i>or</i><br>Molecular Biology and Biochemistry <i>or Alternate Course (Table 1a)*</i> |
| 16:115:504 <i>or</i><br>16:115:512 | 4 <i>or</i><br>3 | Biochemistry <i>or</i><br>Molecular Biology and Biochemistry <i>or Alternate Course (Table 1a)*</i> |
| 16:709:601                         | 1 cr             | Nutritional Sciences Seminar  |
| 16:709:602                         | 2 cr             | Nutritional Sciences Seminar  |
| 16:709:515                         | 3                | Principles of Nutrition Research  |
| 16:709:506                         | 3                | Nutritional Aspects of Disease  |

**\*Table 1a. 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: Choose 2 of the italicized courses, or 1 italicized and 1 bold course.**

**If you've taken a semester of one of these courses (16:115:503 or 504 or 16:115:511 or 512): Choose 1 of the courses below (italicized or bolded).**

| <b>Course number</b>  | <b>Credits</b> | <b>Course Name</b>                                       |
|---|----------------|--|
| <i>16:963:512</i>   | <i>3</i>       | <i>Integrated Organ Physiology</i>                       |
| <i>16:761:507</i>   | <i>3</i>       | <i>Comparative Physiology</i>                            |
| <i>16:761:508</i>   | <i>3</i>       | <i>Molecular and Cell Physiology</i>                     |
| <i>16:761:513</i>   | <i>3</i>       | <i>Cardiovascular Physiology</i>                         |
| <i>16:761:515</i>   | <i>3</i>       | <i>Medical Physiology</i>                                |
| <i>16:682:503</i>   | <i>3</i>       | <i>Microbial Physiology</i>                              |
| <i>16:682:501</i>   | <i>3</i>       | <i>Microbial Life</i>                                    |
| <i>16:710:555</i>   | <i>3</i>       | <i>Neurobiology</i>                                      |
| <i>16:125:581</i>   | <i>3</i>       | <i>Mammalian Physiology</i>                              |
| <i>01:146:456*</i>  | <i>3</i>       | <i>Advanced Physiology</i>                               |
| <b>16:400:530</b>   | <b>3</b>       | <b>Advanced Food Sensory Science</b>                     |
| <b>16:761:610</b>   | <b>3</b>       | <b>Biological Biomedical and Social Aspects of Aging</b> |
| <b>16:340:591</b>   | <b>4</b>       | <b>Reproductive &amp; Developmental Toxicology</b>       |
| <b>16:340:502</b>   | <b>3</b>       | <b>Physiology of Reproduction</b>                        |
| <b>16:681:671</b>   | <b>3</b>       | <b>Topics in Translation of Research to Medicine</b>     |
| <b>MSBS 5050S</b>   | <b>3</b>       | <b>Environmental Health</b>                              |
| <b>16:572:503</b>   | <b>3</b>       | <b>Exercise Biochemistry</b>                             |
| <b>16:340:508</b>   | <b>3</b>       | <b>Equine Exercise Physiology</b>                        |
| <b>16:572:508</b>   | <b>3</b>       | <b>Psychophysiology in Kinesiology</b>                   |
| <b>16:340:510</b>   | <b>3</b>       | <b>Neuroendocrinology</b>                                |
| <i>Other Endocrinology or Science Courses (with prior approval)</i> |                |  |

**\*Undergraduate Courses** are an option only if a student has never had an undergraduate course in the topic.

**Table 2. Elective Coursework**

| <b>Course number</b>  | <b>Credits</b> | <b>Course Name</b>                                      |
|---|----------------|---|
| <b>Guided Electives-Statistics<br/>(students must choose 1 course)</b>    |                |   |
| 01:960:401*   | 3              | Basic Statistics for Research                           |
| 01:960:484  | 3              | Basic Applied Statistics                                |
| 01:960:490  | 3              | Intro to Experimental Design                            |
| 16:960:584  | 3              | Biostatistics I (only for those with strong background) |
| 75:832:504  | 3              | Introduction to Biostatistics                           |
| 16:960:590  | 3              | Design of Experiments                                   |
| 16:960:586  | 3              | Interpretation of Data I                                |
| <b>Free Electives (selected courses,<br/>many other options possible)</b> |                |   |
| 16:115:556  | 1              | Ethical Science Conduct (recommended)                   |
| 16:709:531  | 3              | Nutritional Epidemiology<br>(recommended)               |
| 16:709:521  | 3              | Community Nutrition                                     |
| 16:709:508  | 3              | Medical Nutrition Therapy                               |
| 16:709:510  | 2              | Advanced Topics in Disease Prevention                   |
| 16:709:524  | 3              | Health Promotion in Nutrition &<br>Dietetics 1          |
| 16:709:526  | 3              | Health Promotion in Nutrition &<br>Dietetics 2          |
| 16:709:818  | 1-12           | Dietetics Supervised Practice                           |
| 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                              |
| 16:572:511  | 3              | Neurophysiology of Health                               |
| 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   |
| 18:821:568  | 3              | Eating and Weight Disorders                             |
| 16:681:502  | 3              | Molecular Genetics                                      |
| 16:681:543  | 3              | Current Concepts of Immunology                          |
| 16:115:601  | 1              | Translational Regulation                                |
| 16:400:509  | 3              | Nutritional Aspects of Food Product<br>Development      |
| 16:400:513  | 3              | Food Science Fundamentals I                             |
| 16:400:514  | 3              | Food Science Fundamentals II                            |
| 16:400:610  | 3              | Nutrigenomics and Nutraceuticals                        |
| 16:400:530  | 3              | Advanced Food Sensory Science                           |

|            |   |                                |
|------------|---|--------------------------------|
| 16:400:603 | 1 | Special Topics in Food Science |
| 18:844:513 | 3 | Intro to Autism Spectrum       |

**\*Undergraduate Courses** are an option only if a student has never had an undergraduate course in statistics. The recommended course is Basic Stats for Research 01:960:401. An alternative is Basic Applied Statistics 01:960:484, which requires entry level exposure to the theory of probability as a pre-requisite.

\*Students who earned grades of A in 11:709:400 Advances Nutrition I (4 cr) and 11:709:401 Advanced Nutrition II (4 cr) may petition to take 16:709:603 Advanced studies in Nutrition for 2 semester (1 credit each semester).

**\*\*Undergraduate Statistics Courses** are an option only if a student has never had an undergraduate course in statistics. The recommended course is Basic Stats for Research 01:960:401. An alternative is Basic Applied Statistics 01:960:484, which requires entry level exposure to the theory of probability as a pre-requisite.

**Table 3. Sample Program of Study for Nutritional Sciences Doctoral program:  
Nutritional Biochemistry and Physiology track**

| <b>Doctoral students (Biochem and Physiology)</b>  |  |
|--|--|
| <b>Fall</b>  | <b>Spring</b>  |
| 709:552 Nutrition: Biochemical & Physiological Basis 1                                       | 709:553 Nutrition: A Biochemical and Physiological Basis                                     |
| 16:709:601 Nutritional Sciences Seminar  | 709:602 Nutritional Sciences Seminar   |
| Biochemistry or Molecular Biology and Biochemistry (Table 1) or Alternate Course (Table 1a)* | Biochemistry or Molecular Biology and Biochemistry (Table 1) or Alternate Course (Table 1a)* |
| 115:556 Ethical Science Conduct  |  |
| <b>Year 2</b>  |  |
| 709:506 Nutritional Aspects of Disease (when offered)  | Elective   |
| Statistics   | 16:709:515 3 Principles of Nutrition Research  |
| 709:701 Research in NS   | 709:702 Research in NS   |
| <b>Year 3</b>  |  |
| Electives  | Electives  |
| 709:701 Research in NS   | 709:702 Research in NS   |
|  |  |
| <b>Year 4</b>  |  |
| Elective   | Elective   |
| 709:701 Research in NS   | 709:702 Research in NS   |

*Italicized courses are strongly encouraged.*

\* Options for statistics courses, see Table 2.

\*\* Options for Physiology courses, see Table 2.

**4.1b. Summary of degree requirements for Nutritional Sciences Doctoral program:**  
***Nutritional Community and Applied Nutrition track***

**72 Credits Required**

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

**Table 4. Required Core Curriculum Coursework for Nutritional Sciences *Community and Applied Nutrition* Doctoral 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 |

**Table 5. Elective Coursework for Nutritional Sciences *Community and Applied Nutrition* Doctoral track**

| Course number  | Credits | Course Name                                 |
|--|---------|---|
| <b>Guided Electives – Statistics (students choose two courses)</b> |         |   |
| 18:820:581   | 3       | Statistical Methods and Design Analysis     |
| 18:820:585   | 3       | Advanced Statistics and Research Design     |
| 01:960:401**   | 3       | Basic Statistics for Research               |
| 16:960:584   | 3       | Biostatistics I                             |
| 75:832:504   | 3       | Introduction to Biostatistics               |
| BIST 0535  | 3       | Biostatistical Computing                    |
| 15:291:531   | 3       | Statistical Methods I (available online)    |
| 15:291:532   | 3       | Statistical Methods II (available online)   |
| 16:960:590   | 3       | Design of Experiments                       |
| 16:960:586   | 3       | Interpretation of Data 1                    |
| 34:833:630   | 3       | Advanced Data Analysis for Public Policy    |
| <b>Guided Electives (students choose two courses)</b>              |         |   |
| 16:709:515   | 3       | Principles of Nutrition Research            |
| 16:709:530   | 3       | Nutrition Epidemiology                      |
| 16:709:524   | 3       | Health Promotion in Nutrition & Dietetics I |
| <b>Free Electives (selected courses, other options possible)</b>   |         |   |
| <b>Nutrition</b>   |         |   |
| 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                                    |
| <b>Anthropology/Culture</b>                          |      |  |
| 16:070:503   | 3    | Social/Cultural Anthropology                                     |
| 16:070:510   | 3    | Social Implications of Gender Differences                        |
| 16:070:511   | 3    | Anthropology of Gender   |
| 16:070:512   | 3    | Cognitive Anthropology   |
| 16:070:523   | 3    | Culture and Aging  |
| 16:070:545   | 3    | Anthropology of Development                                      |
| 16:070:546   | 3    | Medical Anthropology   |
| 16:070:547   | 3    | Participatory Planning in Applied Anthropology                   |
| 16:070:572   | 3    | Biology of Human Behavior  |
| 16:070:583   | 3    | Origins of Agriculture   |
| 16:350:512   | 3    | Cultural Studies   |
| 16:450:508 (S)                                       | 3    | Environmental Problems in Developing Countries                   |
| 16:450:614 (F)                                       | 3    | Seminar in Medical Geography                                     |
| <b>Communication</b>                                 |      |  |
| HEBS:0674  |      | Group Dynamics/Interpersonal Communication                       |
| HEBS:0679  |      | Health Communication/Risk Communication                          |
| HEBS:9554  |      | Nutrition Counseling and Communications                          |
| HEBS:9650  |      | Intercultural Communication                                      |
| 17:194:554   | 3    | Health Communication   |
| 17:194:612   | 3    | Human Information Behavior                                       |
| 17:194:620   | 3    | Interpersonal Communication                                      |
| 17:194:631   | 3    | Mass Communication Theory and Research                           |
| 17:194:662   | 3    | Media Literacy   |
| 17:194:664   | 3    | Media and Culture  |
| <b>Educational Program Planning &amp; Evaluation</b> |      |  |
| HEBS:0651  |      | Health Education Planning and Evaluation                         |
| HEBS:0655  |      | Methodologies and Materials in Health Education                  |
| HEBS:9550  |      | Educational Psychology IV: Introduction to Learning              |
| HEBS:9558  |      | Psychology of Learning   |
| HEBS 5563  | 3    | Survey Design  |
| PHCO:0505:001  | 3    | Health Education and Behavioral Science in Public Health         |
| HEBS: 0653   |      | Modifying Health Behaviors: Theory and Practice                  |
| HEBS:9553  |      | Human Development Through The Life Cycle                         |
| 16:300:520   | 3    | Program Evaluation: An Introduction to Methods and Practice      |
| 16:300:532   | 3    | Language in Education II   |
| 16:300:551   | 3    | Evaluation of Educational and Social Programs                    |
| 16:300:532   | 3    | Educational Psychology II: Theories of Cognition and Instruction |
| 16:300:643   | 3    | Educational Change: Theory and Practice                          |
| <b>Epidemiology</b>                                  |      |  |
| EPID:0652:001  | 3    | Epidemiology of Chronic Disease                                  |
| EPID:0651  |      | Epidemiological Research Methods                                 |
| <b>Food Science</b>                                  |      |  |
| 16:400:509   | 3    | Nutritional Aspects of Food Product Development                  |



|   |   |   |
|---|---|---|
| 16:400:513                              | 3 | Food Science Fundamentals I   |
| 16:400:514                              | 3 | Food Science Fundamentals II  |
| 16:400:519                              | 3 | Food Safety   |
| 16:400:530                              | 3 | Advanced Food Sensory Science   |
| <b>Policy: Nutrition, Health Policy</b> |   |   |
| HSAP:0661                               |   | Health Care Policy  |
| HSAP:0662                               |   | Health Care Policy Making   |
| HSAP:9522                               |   | Public Policy Advocacy  |
| HSAP:9568                               |   | Health Care Policy  |
| 34:833:510                              |   | Public Policy Formation   |
| <b>Psychology</b>                       |   |   |
| 16:830:505                              | 3 | Theories and Issues in Developmental Psychology   |
| 16:830:506                              | 3 | Social Psychology   |
| 16:830:507                              | 3 | Developmental Research Methodology  |
| 16:830:508                              | 3 | Research Methods in Social Psychology   |
| 16:830:517                              | 3 | Interpersonal Behavior and Group Processes  |
| 16:830:534                              | 3 | Psychology of Decision Making   |
| 16:830:542                              | 3 | Attitude Organization and Change  |
| 16:830:560                              | 3 | Emotion and Motivation  |
| 16:830:577                              | 3 | Health Psychology   |
| 16:830:610                              | 3 | Social Psychology of Organizations  |
| 16:830:612                              | 3 | Seminar: Social Psychology  |
| 16:830:620                              | 3 | Seminar: The Dynamics of Small Groups   |
| <b>Sociology</b>                        |   |   |
| HEBS:9652                               |   | Sociology of Health   |
| 16:910:646                              | 3 | Family Theory and Program Development   |
| 16:910:650                              | 3 | Problems in Health and Social Policy  |
| 16:920:521                              | 3 | Sociology of Education  |
| 16:920:523                              | 3 | Sociology of Health   |
| 16:920:524                              | 3 | Sociology of Organization   |
| 16:920:613                              | 3 | The Sociology of Age  |
| <b>Urban Health &amp; Nutrition</b>     |   |   |
| UREH:2648                               |   | Community and Environmental Approaches to Health Behavior in Urban Disadvantage Populations |
| UREH:2651                               |   | Introduction to Urban Environmental Health  |
| <b>Other Electives</b>                  |   |   |
| HEBS:0551                               |   | Public Health Grant Writing   |

\*Students who earned grades of A in 11:709:400 Advances Nutrition I (4 cr) and 11:709:401 Advanced Nutrition II (4 cr) may petition to take 16:709:603 Advanced studies in Nutrition for 2 semester (1 credit each semester).

\*\***Undergraduate Courses** are an option only if a student has never had an undergraduate course in statistics. The recommended course is Basic Stats for Research 01:960:401. An alternative is Basic Applied Statistics 01:960:484, which requires entry level exposure to the theory of probability as a pre-requisite.

**Table 6. Sample Program of Study for Nutritional Sciences Doctoral program:  
Community and Applied Nutrition track**

| FALL           |  |     | SPRING  |  |     |
|----------------|--|-----|---------|--|-----|
| <b>Year 1</b>  |  |     |         |  |     |
| 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) |
| <b>Year 2</b>  |  |     |         |  |     |
|                | 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) |         |  |     |
| <b>Year 3</b>  |  |     |         |  |     |
|                | <i>Electives</i>                               |     | 709:701 | Research in NS                                 |     |
| 709:701        | Research in NS                                 |     | 709:702 | Research in NS                                 |     |
| 709:504        | Seminar in Nutrition Education                 | (1) |         |  |     |
| <b>Year 4+</b> |  |     |         |  |     |
|                | <i>Electives</i>                               |     |         | <i>Electives</i>                               |     |
| 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 5.

## 4.2 Admission to Candidacy

To be granted Doctoral Candidacy status, Nutritional Sciences Graduate Program doctoral students must satisfactorily complete a written qualifying examination and dissertation proposal defense. An application for Admission to Ph.D. candidacy must be completed ([gsnb.rutgers.edu/resources/graduate-students-forms](https://gsnb.rutgers.edu/resources/graduate-students-forms)), signed by dissertation committee members (see section 5.4 below) and the Nutritional Sciences Graduate Program Director, and filed with the School of Graduate Studies.

### A. Written Qualifying Exam for Doctoral Students

The written portion of the Qualifying Examination is administered by the Nutritional Sciences Graduate Program 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 are considered eligible to take the written qualifying exams either:

- 1) at the end of their second year of study, provided they have taken a majority of the required nutrition coursework and are not on academic probation, or
- 2) at the end of the first year if the student entered the doctoral program with an advanced degree (e.g., master's or higher) that included coursework for which the Nutritional Sciences Graduate Program Curriculum Committee approved as equivalent substitutions for Nutritional Sciences Graduate Program requirements, and they have taken most of the remaining required coursework (and are in satisfactory academic standing).

The Nutritional Sciences Curriculum Committee is responsible for the administration of the qualifying exam to 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 Nutritional Sciences Graduate Program Curriculum Committee needs. Preparatory related readings for the written qualifying exam are usually made available to students at least 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 a total of approximately eight sets of readings to study (each set typically contains five research articles or similar papers). The readings are provided approximately 4 weeks before the exam. Normally, students answer a minimum of five questions from a selection of eight or more questions provided by the Curriculum Committee. 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-based (e.g., interpretation of research findings). 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 or choices will be knowledge-based and at least 2 choices will be data-based. Students have about 8 hours to complete the exam in a proctored setting.

Exam answers are graded by the Nutritional Sciences Graduate Program faculty member posing the question as soon as practicable after the exam ends, normally, within 3 weeks of completion of the exam. Students must pass all 5 questions to be admitted to doctoral candidacy. A student who fails 2 or more questions, is allowed to complete the qualifying exam again the next year. A student failing 1 question has the opportunity to meet with the faculty member who wrote the exam within 2 weeks following communication of the exam outcome and, within 2 weeks of this meeting, can revise the answer based on the verbal or written feedback received during the meeting. Failure of the revised question is failure of the qualifying exam; the student is allowed to complete the exam the next year. Failure of the second attempt at the entire exam is a final failure and the student shall be referred to the Dean of the School of Graduate Studies for further action.

#### **B. Dissertation Proposal Defense**

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

### **4.3 Ph.D. Dissertation Committee**

A Ph.D. 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 Nutritional Sciences Graduate Program Director.

The committee chair must be a full member of the Nutritional Sciences Graduate Program Faculty. Two committee members must be full or associate members of the Nutritional Sciences Graduate Program Faculty (<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 Nutritional Sciences Graduate Program or an outside member. For the defense of the *completed* dissertation, the remaining (fourth member) must be outside the Nutritional Science Graduate Program.

The outside member, approved by the Graduate Director and appointed by School of Graduate Studies, must have research and/or academic credentials appropriate for such committee service. The student's major advisor should work with the student to submit the outside appointment request, in writing, to the Nutritional Sciences Graduate Program Director 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 the Nutritional Sciences Graduate Program 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 outside committee member and get approval of this individual's service before the *proposal* defense.

#### **4.4 Dissertation Defense (Final Examination)**

Typically in the last semester of graduate study, a student defends his or her dissertation. 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 the 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 or not 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 ([gsnb.rutgers.edu/resources/graduate-students-forms](https://gsnb.rutgers.edu/resources/graduate-students-forms)) in Black ink indicating whether the student has passed or failed the examination. The Graduate Director 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.

### 5.1a. Summary of coursework requirement for Nutritional Sciences Master's program: *Nutritional Biochemistry and Physiology* track

#### 30 Credits Required

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

**Table 7. Required Core Curriculum Coursework for *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 <i>or</i><br>16:115:511 | 4 <i>or</i><br>3 | Biochemistry <i>or</i><br>Molecular Biology and Biochemistry <i>or Alternate Course (Table 1a)*</i> |
| 16:115:504 <i>or</i><br>16:115:512 | 4 <i>or</i><br>3 | Biochemistry <i>or</i><br>Molecular Biology and Biochemistry <i>or Alternate Course (Table 1a)*</i> |
| 16:709:601                         | 1                | Nutritional Sciences Seminar  |

**\*Table 7a. Possible Alternatives to Biochemistry (16:115:503/504) or Molecular Biology and Biochemistry (16:115:511/512).**

| Course number | Credits | Course Name  |
|---------------|---------|--|
| 16:125:581    | 3       | <i>Integrated Physiology</i>                             |
| 16:761:580    | 3       | <i>Molecular Basis of Physiology</i>                     |
| 16:761:507    | 3       | <i>Comparative Physiology</i>                            |
| 16:761:508    | 3       | <i>Molecular and Cell Physiology</i>                     |
| 16:761:513    | 3       | <i>Cardiovascular Physiology</i>                         |
| 16:761:515    | 3       | <i>Medical Physiology</i>                                |
| 16:682:503    | 3       | <i>Microbial Physiology <b>or</b></i>                    |
| 16:682:501    | 3       | <i>Microbial Life</i>                                    |
| MSBS 5081S    | 3       | <i>Human Physiology in Medicine</i>                      |
| 01:146:456    | 3       | <i>Advanced Physiology</i>                               |
|               |         |  |
| 16:761:610    | 3       | <i>Biological Biomedical and Social Aspects of Aging</i> |
| 16:340:591    | 4       | <i>Reproductive &amp; Developmental Toxicology</i>       |

|   |   |  |
|---|---|--|
| 16:340:502  | 3 | <i>Physiology of Reproduction</i>                    |
| 16:681:671  | 3 | <i>Topics in Translation of Research to Medicine</i> |
| MSBS 5050S  | 3 | <i>Environmental Health</i>                          |
| 16:572:503  | 3 | <i>Exercise Biochemistry</i>                         |
| 16:340:508  | 3 | <i>Equine Exercise Physiology</i>                    |
| 16:765:540  | 3 | <i>Natural Products &amp; Human Health</i>           |
| 16:572:508  | 3 | <i>Psychophysiology in Kinesiology</i>               |
| 16:340:510  | 3 | <i>Neuroendocrinology</i>                            |
| <i>Other Endocrinology or Science Courses (with prior approval)</i> |   |  |

**Table 8. Elective Coursework for Nutritional Biochemistry and Physiology track**

| <b>Course number</b>  | <b>Credits</b> | <b>Course Name</b>                          |
|---|----------------|---|
| <b>Guided Electives-Statistics (students must choose one course)</b>  |                |   |
| 01:960:401**  | 3              | Basic Statistics for Research               |
| 01:960:484  | 3              | Basic Applied Statistics                    |
| 01:960:490  | 3              | Intro to Experimental Design                |
| 16:960:584  | 3              | Biostatistics I                             |
| 75:832:504  | 3              | Introduction to Biostatistics               |
| 16:960:590  | 3              | Design of Experiments                       |
| 16:960:586  | 3              | Interpretation of Data I                    |
| <b>Free Electives (selected courses, many other options possible)</b> |                |   |
| 16:709:508  | 3              | Medical Nutrition Therapy                   |
| 16:709:510  | 2              | Advanced Topics in Disease Prevention       |
| 16:709:524  | 3              | Health Promotion in Nutrition & Dietetics 1 |
| 16:709:526  | 3              | Health Promotion in Nutrition & Dietetics 2 |
| 16:709:602  | 2              | Nutrition Seminar                           |
| 16:709:818  | 1-12           | Dietetics Supervised Practice               |
| 01:146:356  | 3              | Systems Physiology                          |
| 16:125:581  | 3              | Mammalian Physiology                        |
| 16:340:502  | 3              | Physiology of Reproduction                  |
| 16:761:580  | 3              | Molecular Basis of Physiology               |
| 16:761:507  | 3              | Comparative Physiology                      |
| 16:761:508  | 3              | Molecular and Cell Physiology               |
| 16:761:513  | 3              | Cardiovascular Physiology                   |
| 16:761:515  | 3              | Medical Physiology                          |
| 16:709:515  | 3              | Principles of Nutrition Research            |
| 16:709:506  | 3              | Nutritional Aspects of Disease              |
| 16:115:556  | 1              | Ethical Science Conduct                     |
| 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                                   |
| 18:821:568 | 3 | Eating and Weight Disorders                     |
| 16:681:502 | 3 | Molecular Genetics                              |
| 16:681:543 | 3 | Current Concepts of Immunology                  |
| 16:115:601 | 1 | Translational Regulation                        |
| 16:400:509 | 3 | Nutritional Aspects of Food Product Development |
| 16:400:513 | 3 | Food Science Fundamentals I                     |
| 16:400:514 | 3 | Food Science Fundamentals II                    |
| 16:400:610 | 3 | Nutrigenomics and Nutraceuticals                |
| 16:400:530 | 3 | Advanced Food Sensory Science                   |
| 16:400:603 | 1 | Special Topics in Food Science                  |

\*Students who earned grades of A in 11:709:400 Advances Nutrition I (4 cr) and 11:709:401 Advanced Nutrition II (4 cr) may petition to take 16:709:603 Advanced studies in Nutrition for 2 semester (1 credit each semester).

**\*\*Undergraduate Statistics Courses** are an option only if a student has never had an undergraduate course in statistics. The recommended course is Basic Stats for Research 01:960:401. An alternative is Basic Applied Statistics 01:960:484, which requires entry level exposure to the theory of probability as a pre-requisite.



**Table 9. Sample Program of Study for Nutritional Sciences Master's program:  
Nutritional Biochemistry and Physiology track**

| <b>Masters (Biochem and Physiology)</b>                                     |   |
|---|---|
| <b>Fall</b>   | <b>Spring</b>   |
| 709:552 Nutrition: Biochemical & Physiological Basis 1                      | 709:553 Nutrition: A Biochemical and Physiological Basis                    |
| 16:709:601 Nutritional Sciences Seminar                                     | 709:602 Nutritional Sciences Seminar  |
| Biochemistry or Molecular Biology (Table 7) or Alternate Course (Table 7a)* | Biochemistry or Molecular Biology (Table 7) or Alternate Course (Table 7a)* |
| 115:556 Ethical Science Conduct   |   |
| <b>Fall</b>   | <b>Spring</b>   |
| Statistics  | Electives   |
| Electives   | 709:702 Research in NS  |
| 709:701 Research in NS  |   |

*Italicized courses are strongly encouraged.*

\*\* Options for statistics and physiology course options, see Table 8.

**5.1b. Summary of coursework requirement for Nutritional Sciences Master's program:  
*Applied and Community Nutrition track***

**30 Credits Required**

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

**Table 10. Required Core Curriculum Coursework for Nutritional Sciences Community and Applied Nutrition Master's 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 |
| 16:709:526    | 3       | Health Promotion in Nutrition and Dietetics II   |
| 16:709:521    | 3       | Community Nutrition                              |

**Table 11. Elective Coursework for Nutritional Sciences Community and Applied Nutrition Master's track**

| Course number  | Credits | Course Name                                   |
|--|---------|---|
| <b>Guided Electives – Statistics (students must choose one course)</b> |         |   |
| 18:820:581   | 3       | Statistical Methods and Design Analysis       |
| 18:820:585   | 3       | Advanced Statistics and Research Design       |
| 01:960:401**   | 3       | Basic Statistics for Research                 |
| 16:960:584   | 3       | Biostatistics I                               |
| 75:832:504   | 3       | Introduction to Biostatistics                 |
| BIST 0535  | 3       | Biostatistical Computing                      |
| 15:291:531   | 3       | Statistical Methods I (available online)      |
| 15:291:532   | 3       | Statistical Methods II (available online)     |
| 16:960:590   | 3       | Design of Experiments                         |
| 16:960:586   | 3       | Interpretation of Data I                      |
| 34:833:630   | 3       | Advanced Data Analysis for Public Policy      |
| <b>Guided Electives (students must choose two courses)</b>             |         |   |
| 16:709:503   | 3       | Introduction to Applied Nutrition Research    |
| 16:709:530   | 3       | Nutrition Epidemiology                        |
| 16:709:524   | 3       | Health Promotion in Nutrition and Dietetics I |
| <b>Free Electives (selected courses, other options possible)</b>       |         |   |
| <b>Nutrition</b>   |         |   |
| 16:709:506   | 3       | Nutritional Aspects of Disease                |
| 16:709:620   | 2-3     | Advanced Topics in Nutritional Sciences       |
| 16:709:515   | 3       | Principles of Nutrition 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                 |
| <b>Anthropology/Culture</b>  |         |   |

|  |   |  |
|--|---|--|
| 16:070:503   | 3 | Social/Cultural Anthropology                                     |
| 16:070:510   | 3 | Social Implications of Gender Differences                        |
| 16:070:511   | 3 | Anthropology of Gender   |
| 16:070:512   | 3 | Cognitive Anthropology   |
| 16:070:523   | 3 | Culture and Aging  |
| 16:070:545   | 3 | Anthropology of Development                                      |
| 16:070:546   | 3 | Medical Anthropology   |
| 16:070:547   | 3 | Participatory Planning in Applied Anthropology                   |
| 16:070:572   | 3 | Biology of Human Behavior  |
| 16:070:583   | 3 | Origins of Agriculture   |
| 16:350:512   | 3 | Cultural Studies   |
| 16:450:508 (S)                                       | 3 | Environmental Problems in Developing Countries                   |
| 16:450:614 (F)                                       | 3 | Seminar in Medical Geography                                     |
| <b>Communication</b>                                 |   |  |
| HEBS:0674  |   | Group Dynamics/Interpersonal Communication                       |
| HEBS:0679  |   | Health Communication/Risk Communication                          |
| HEBS:9554  |   | Nutrition Counseling and Communications                          |
| HEBS:9650  |   | Intercultural Communication                                      |
| 17:194:554   | 3 | Health Communication   |
| 17:194:612   | 3 | Human Information Behavior                                       |
| 17:194:620   | 3 | Interpersonal Communication                                      |
| 17:194:631   | 3 | Mass Communication Theory and Research                           |
| 17:194:662   | 3 | Media Literacy   |
| 17:194:664   | 3 | Media and Culture  |
| <b>Educational Program Planning &amp; Evaluation</b> |   |  |
| HEBS:0651  |   | Health Education Planning and Evaluation                         |
| HEBS:0655  |   | Methodologies and Materials in Health Education                  |
| HEBS:9550  |   | Educational Psychology IV: Introduction to Learning              |
| HEBS:9558  |   | Psychology of Learning   |
| HEBS 5563  | 3 | Survey Design  |
| PHCO:0505:001  | 3 | Health Education and Behavioral Science in Public Health         |
| HEBS: 0653   |   | Modifying Health Behaviors: Theory and Practice                  |
| HEBS:9553  |   | Human Development Through The Life Cycle                         |
| 16:300:520   | 3 | Program Evaluation: An Introduction to Methods and Practice      |
| 16:300:532   | 3 | Language in Education II   |
| 16:300:551   | 3 | Evaluation of Educational and Social Programs                    |
| 16:300:532   | 3 | Educational Psychology II: Theories of Cognition and Instruction |
| 16:300:643   | 3 | Educational Change: Theory and Practice                          |
|  |   |  |
| <b>Epidemiology</b>                                  |   |  |
| EPID:0652:001  | 3 | Epidemiology of Chronic Disease                                  |
| EPID:0651  |   | Epidemiological Research Methods                                 |
| <b>Food Science</b>                                  |   |  |
| 16:400:509   | 3 | Nutritional Aspects of Food Product Development                  |
| 16:400:513   | 3 | Food Science Fundamentals I                                      |

|   |   |   |
|---|---|---|
| 16:400:514                              | 3 | Food Science Fundamentals II  |
| 16:400:519                              | 3 | Food Safety   |
| 16:400:530                              | 3 | Advanced Food Sensory Science   |
| <b>Policy: Nutrition, Health Policy</b> |   |   |
| HSAP:0661                               |   | Health Care Policy  |
| HSAP:0662                               |   | Health Care Policy Making   |
| HSAP:9522                               |   | Public Policy Advocacy  |
| HSAP:9568                               |   | Health Care Policy  |
| 34:833:510                              |   | Public Policy Formation   |
| <b>Psychology</b>                       |   |   |
| 16:830:505                              | 3 | Theories and Issues in Developmental Psychology   |
| 16:830:506                              | 3 | Social Psychology   |
| 16:830:507                              | 3 | Developmental Research Methodology  |
| 16:830:508                              | 3 | Research Methods in Social Psychology   |
| 16:830:517                              | 3 | Interpersonal Behavior and Group Processes  |
| 16:830:534                              | 3 | Psychology of Decision Making   |
| 16:830:542                              | 3 | Attitude Organization and Change  |
| 16:830:560                              | 3 | Emotion and Motivation  |
| 16:830:577                              | 3 | Health Psychology   |
| 16:830:610                              | 3 | Social Psychology of Organizations  |
| 16:830:612                              | 3 | Seminar: Social Psychology  |
| 16:830:620                              | 3 | Seminar: The Dynamics of Small Groups   |
| <b>Sociology</b>                        |   |   |
| HEBS:9652                               |   | Sociology of Health   |
| 16:910:646                              | 3 | Family Theory and Program Development   |
| 16:910:650                              | 3 | Problems in Health and Social Policy  |
| 16:920:521                              | 3 | Sociology of Education  |
| 16:920:523                              | 3 | Sociology of Health   |
| 16:920:524                              | 3 | Sociology of Organization   |
| 16:920:613                              | 3 | The Sociology of Age  |
| <b>Urban Health &amp; Nutrition</b>     |   |   |
| UREH:2648                               |   | Community and Environmental Approaches to Health Behavior in Urban Disadvantage Populations |
| UREH:2651                               |   | Introduction to Urban Environmental Health  |
| <b>Other Electives</b>                  |   |   |
| HEBS:0551                               |   | Public Health Grant Writing   |

\*Students who earned grades of A in 11:709:400 Advances Nutrition I (4 cr) and 11:709:401 Advanced Nutrition II (4 cr) may petition to take 16:709:603 Advanced studies in Nutrition for 2 semester (1 credit each semester).

**\*\*Undergraduate Courses** are an option only if a student has never had an undergraduate course in statistics. The recommended course is Basic Stats for Research 01:960:401. An alternative is Basic Applied Statistics 01:960:484, which requires entry level exposure to the theory of probability as a pre-requisite.

**Table 12. Sample Program of Study for Nutritional Sciences Master's program:  
Community and Applied Nutrition track**

| FALL           |  |            | SPRING  |  |     |
|----------------|--|------------|---------|--|-----|
| <b>Year 1</b>  |  |            |         |  |     |
| 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) |
| <i>115:556</i> | <i>Ethical Science Conduct</i>                 | <i>(1)</i> |         |  |     |
| <b>Year 2</b>  |  |            |         |  |     |
|                | 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 11.

## **5.2 M.S. Thesis Defense**

The Master's thesis defense is very similar to the doctoral dissertation defense. Please refer to section 4.2 in this handbook.

## **5.3 Transferring from the M.S. program to the Ph.D.**

Prior to completing the master's degree, students can petition the Nutritional Sciences Graduate Program Curriculum Committee to change their status from the Master's to the doctoral program. The petition includes, at a minimum, a memo to the Curriculum Committee requesting the change and a letter from the student's advisor supporting the petition. If the petition is granted, the student must complete an Application for Change of Degree Status ([gsnb.rutgers.edu/resources/graduate-students-forms](https://gsnb.rutgers.edu/resources/graduate-students-forms)); this application requires the consent of the Nutritional Sciences Graduate Program Director.

Students who have already completed the master's degree in the Rutgers Nutritional Sciences Graduate Program who wish to continue their studies as a doctoral student must complete an Application for Change of Degree Status ([gsnb.rutgers.edu/resources/graduate-students-forms](https://gsnb.rutgers.edu/resources/graduate-students-forms)) to enter the Ph.D. program; this application requires the consent of the Graduate Director.

## **6. PROCEDURES IF THINGS GO WRONG**

Problems and concerns should be discussed with the Graduate Director(s) who may then review them with the Graduate Program Faculty, and where applicable, with the Department Chair. Students having differences with other students or with a faculty member should speak in confidence with the Graduate Director, Department Chairman, or with any faculty member.

### **6.1 Change of Major Advisor or Thesis Committee Membership**

Should a student's major advisor leave the University, the student must consult with the Graduate Director concerning the appointment of a new major advisor. After retirement, a major professor, as a Professor Emeritus, can serve as the major 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 advisor and/or faculty membership on their thesis committee in consultation with their major advisor and/or the Graduate Director. Substitutions in committee membership require approval of the Graduate Director and will occur only if a member is unable to serve or if a student's dissertation topic changes, requiring a new dissertation director and/or modification in the committee. In cases other than these, approval for change in committee membership rests with the Dean of the School of Graduate Studies.

### **6.2 Extension of Time Request**

Requests for extension of the deadline for satisfying the Ph.D. qualifying examination requirements must be made in writing to the chair of the student's thesis committee with a copy to the Graduate Director. Pertinent forms must be filed with the School of Graduate Studies (<http://gsnb.rutgers.edu/resources/graduate-student-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 Graduate Director.

### **6.4 Other Issues**

Other student appeals and complaints may be addressed to the Graduate 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 Graduate Program Faculty for a formal review and decision. Students may appeal decisions of the Graduate Director or the Graduate Program Faculty to the Dean of the School of Graduate Studies.

## 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 networking, leadership skill, and academic development opportunities. Watch the [nutri\\_grad@email.rutgers.edu](mailto: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/](http://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](http://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 [gsnb.rutgers.edu/resources/graduate-student-forms](http://gsnb.rutgers.edu/resources/graduate-student-forms) for more information.

- Psychological Services: See [rhscaps.rutgers.edu/](http://rhscaps.rutgers.edu/) for more information.

- **Student-Wellness Services:**

#### **Just In Case Web App**

<http://codu.co/cee05e>

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.

#### **Counseling, ADAP & Psychiatric Services (CAPS)**

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/

[www.rhscaps.rutgers.edu/](http://www.rhscaps.rutgers.edu/)

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.

**Violence Prevention & Victim Assistance (VPVA)**

**(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / [www.vpva.rutgers.edu/](http://www.vpva.rutgers.edu/)**

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.

**Disability Services**

**(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>**

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

**Scarlet Listeners**

**(732) 214-9069 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>**

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

**7.6 Future Employment**

To explore options for using your graduate degree, visit the Rutgers iJobs office:  
<http://ijobs.rutgers.edu/>

**7.7 Be Proactive**

If you have questions or concerns, seek answers and advice! Check the program website ([nutrition.rutgers.edu/](http://nutrition.rutgers.edu/)) or the SGS website ([gsnb.rutgers.edu/](http://gsnb.rutgers.edu/)). Talk to more advanced graduate students, faculty, staff, or the professionals at the grad school 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**

School of Graduate Studies 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/>

Based on <http://rwjms.rutgers.edu/education/documents/RWJMSSStudentHandbook.pdf>

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

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