Graduate Handbook

Guidelines for Master of Science and Ph.D. Students in Nutritional Sciences

Welcome to the Department of Nutritional Sciences at the University of Connecticut.

This handbook is meant to be a supplement for, and not a replacement of, the Graduate School Catalog http://catalog.grad.uconn.edu/. This is a guide to our graduate program; the requirements of the Graduate School Catalog and the student's individual advisory committee determine the final requirements for successful completion of the degree.

Graduate Program descriptions:
The Department offers **Master of Science (M.S.)** and **Doctor of Philosophy (Ph.D.)** degrees in Nutritional Sciences. Requirements for completion of the M.S. are on pages 4-6 and for the Ph.D. on pages 7-12.

Choosing a major advisor before joining the Nutritional Sciences Graduate Program:
A major advisor must be determined before a student is accepted into the Graduate Program; choice of a student's major advisor is reached by mutual consent between the student and the advisor at the time of admission to the program. A student's major advisor will oversee the research project, writing of the thesis/dissertation, and course selection in consultation with the advisory committee.

Graduate faculty in the department
Catherine Andersen, Ph.D., R.D. *, Loneke Blackman Carr, Ph.D., R.D.*, Sangyong Choi, Ph.D.*., Christopher Blesso, Ph.D.*, Rhonda Brownbill, Ph.D., R.D., Ock Chun, Ph.D., M.P.H.*, Ji-Young Lee, Ph.D.*, Yangchao Luo, Ph.D.*, Clinton Mathias, Ph.D.*, Young-Ki Park, Ph.D.*, Michael Puglisi, Ph.D., R.D.*

*Can serve as major advisors for Ph.D.
All faculty members can serve as major advisors for M.S. students.

Graduate Program advisory committee
The UConn Graduate Catalog states, "Degree programs are planned by the advisory committee after consultation with the student." Thus, the graduate student's input is especially important in planning the degree program and graduate research. In practice, students should form their committee approximately 1 year into their M.S. program or 1-2 years into their Ph.D. program and meet with their committee once per year afterwards. In addition to consulting on appropriate course work, the advisory committee plays a key role in the design, execution, and management of the student's graduate thesis or doctoral dissertation research.

Forming an advisory committee:
Typically, at the first advisory committee meeting, a Plan of Study should be prepared and approved by the committee.

- Masters' advisory committee composition: 3 faculty members with at least 2 from Nutritional Sciences Department

- Ph.D. advisory committee composition: at least 3 faculty members; 2 must be from Nutritional Sciences department, and 1 must be external to NUSC department (i.e., either from another department at the University or from outside the University).

The major advisor must be graduate faculty. Each committee member is selected in consultation with the student's major advisor based on the expertise they provide in the thesis/dissertation area. Any members of the University of Connecticut faculty may serve as associate advisors. If an advisor from outside the University is needed, the major advisor may request an appointment from the UConn Graduate School for this individual.

Change of major advisor

In most cases, students remain with the major advisor selected upon entry into the program. However, under some circumstances, a change in major advisor may become warranted. These would include the advisor leaving the University or becoming seriously ill for an extended period, a lack of funds available to support the student, the student changing research interests or other life circumstances. A student who needs to change his/her major advisor should consult with the Graduate Program Coordinator. When a new advisor is found, a "Notification of Change of Major Advisor" must be filed with the Graduate Records Office.

Changes in advisory committee members: These changes are the decision of the student and their major advisor. Additional details on the advisory systems are given in the Graduate School Catalog.

Graduate Program code of conduct

- **Policy against Discrimination, Harassment, and Inappropriate Romantic Relationships** — Information is available at http://policy.uconn.edu/?p=2884.)
- **Sexual Assault Reporting Policy** — Information available at http://sexualviolence.uconn.edu/
- **Students with Disabilities** — Detailed information regarding the accommodations process is available at www.csd.uconn.edu.
- **Academic Integrity Statement** — The Nutritional Sciences Graduate Program expects all students to act in accordance with the Guidelines for Academic Integrity at the University of Connecticut. Additionally, consult UConn's guidelines for academic integrity and plagiarism: http://community.uconn.edu/the-student-code/

NUSC Graduate Program recommended course preparation:

a. Physiology
b. Biochemistry
c. Nutrition

MASTER'S PROGRAM

There are 2 options for the Master of Science Program: **Plan A** (thesis option) and **Plan B** (non-thesis option). Both options require a minimum of 30 credits.

A list of NUSC graduate courses can be found in the Graduate Catalog.

Required courses for both options: NUSC 5100, NUSC 5200, NUSC 5300, NUSC 5394, 3 credits of statistics, *GRAD 5910 (Responsible Conduct in Research), and 3 additional graduate credits.

*Students may satisfy the Responsible Conduct in Research (RCR) requirement by completing a 2-day RCR workshop offered by the Office of the Vice President for Research. *However, this workshop is not offered for academic credit; therefore, the 1 credit from GRAD 5910 must be replaced with an additional graduate credit from another course.*

For **Plan A:** 9 credits of thesis research are required to complete the 30 credits; for **Plan B:** 9 additional credits of course work is required to complete the 30 credits.

Examinations:
Students earning the Master of Science degree are required to complete 2 examinations:

1. Part I is a written general knowledge examination.

Written Exam
The general knowledge exam is usually taken after the second or the third semester of study and is offered in early April, or other dates as needed. The exam is **closed book** and takes approximately 2 to 4 hours to complete. The major advisor must notify the graduate program coordinator of eligible students at least one month before the scheduled exam dates. *The responsibility for taking this exam lies with both the student and their major advisor.* A student **will not pass the exam** if there is any evidence that books, articles, or class notes were used to complete the exam.

Type of questions: The examination contains two types of questions:

- **General nutrition questions**: The first part of the exam contains questions on general nutrition knowledge fundamental to all advanced degree programs in nutrition. For this section, students must demonstrate theoretical and practical knowledge in nutrition. Students are given ten questions from which seven must be answered. The questions are common to all examinations administered at that time and are drawn from a pool of questions submitted by the faculty. Copies of old exams are available from the graduate program coordinator for review.
- **Area of specialization questions:** The second part contains three questions developed by the advisory committee in an area of specialization. Students must answer all three

questions. Committee members may choose to provide study materials in advance of the three area of specialization questions.

Criteria for Passing

- Exams are graded and results are available within four weeks of the test date.
- 75% is the passing grade for the general knowledge section of the exam. This section is graded by the NUSC Graduate Committee members.
- All questions in the area of specialization section must be answered with a grade of 75% or better. This section is graded by the student's advisory committee.
- The results are communicated through the major advisor to the student and all issues related to **reexamination, if necessary, are under the direction of the advisory committee**. If a student does not pass any section of the exam, their advisory committee will evaluate the most appropriate approach for correcting deficits. For the general knowledge section, the advisory committee usually recommends that the student take additional undergraduate or graduate courses or develop a course of self-study, which will allow them to retake the exam at the next scheduled opportunity. If a student does not pass the area of specialization, the advisory committee usually elects to reexamine the student in a written format with the next exam or provide an oral or written exam within one month, but not less than one week after grading of the original exam. Students retaking the general knowledge section do not have to retake the area of specialization section if they have already passed it. *Failure of the general knowledge examination for the second time results in dismissal from the program.*

2. **Part II is an oral defense of the thesis research for Plan A, and either a written term paper and/or oral presentation for Plan B.**

Oral defense of the thesis or project (Plan A only)

Upon completion of the thesis project and the approval of the advisory committee, a student may schedule their oral defense (which is equivalent to the oral exam). The presentation notice should be posted, and faculty and students in the Department should be notified via email one week prior the exam date.

- The major advisor acts as the moderator for the presentation.
- The general format is a presentation of approximately 45 minutes, followed by an open question period and then a more intensive questioning by members of the advisory committee.
- The student will then be asked to leave the room while advisory committee members deliberate to determine two things: 1) whether the student has passed the oral exam and 2) if edits are needed to have a final acceptable thesis.
- If the advisory committee decides the student has passed the exam, all committee members will sign the form that indicates that the written and the oral exam have been passed. The committee must sign the approval page of the thesis; this normally occurs after all edits and proposed modifications have been made by the student.

Oral presentation or written term paper (Plan B only)

Upon the approval of the advisory committee, Plan B students may elect to complete this requirement by either **submission of a comprehensive term paper approved by their advisory committee and/or giving an oral presentation**.

If scheduling an oral presentation, a notice should be posted in the department at least one week prior to the oral defense. Faculty and students in the Department should also be notified via email one week prior the presentation date. The format of an oral presentation is the same as an oral defense described in Plan A.

After submission of a written term paper or completion of the oral presentation, the advisory committee members determine whether the student has passed this portion of the exam. If the advisory committee decides the student has passed the exam, all committee members will sign the form that indicates that both portions of the Master's exam have been passed.

Checklist for Master of Science Degree (Completed in coordination with the major advisor).

It is usually assumed that a student who enters the program with all pre-requisites will complete the M.S. degree in two years.

____ DESIGNATION OF AN ADVISORY COMMITTEE BEFORE COMPLETION OF 12 CREDITS OF DEGREE PROGRAM COURSEWORK

____ SUBMISSION AND APPROVAL OF A PLAN OF STUDY NO LATER THAN THE BEGINNING OF THE STUDENT'S FINAL SEMESTER

____ COMMITTEE APPROVAL OF COMPLETED THESIS OR PROJECT (PLAN A ONLY)

____ COMPLETION OF ORAL DEFENSE OF THESIS (PLAN A ONLY)

____ SUBMISSION OF ELECTRONIC COPY OF THE THESIS TO THE GRADUATE SCHOOL AND A BOUND COPY TO EACH MEMBER OF THE ADVISORY COMMITTEE (PLAN A ONLY)

____ WRITTEN EXAMINATION

____ COMPLETION OF FINAL ORAL PRESENTATION AND/OR SUBMISSION OF WRITTEN TERM PAPER (PLAN B ONLY)

____ SUBMISSION OF FINAL EXAMINATION FORMS TO THE GRADUATE SCHOOL

DOCTORAL PROGRAM

The Ph.D. program is based on a research dissertation and consists of five major parts:

1. **Courses (Plan of Study)**. 30 or more credits of advanced course work, beyond the baccalaureate or 15 credits beyond the Master of Science degree; these courses are selected with advisory committee's approval. A Plan of Study outlining the courses to be taken must be submitted to the Graduate School for approval no later than when 18 credits have been completed.
2. **Departmental Seminar**. Each student is required to present a formal 35 to 40-minute PowerPoint presentation (with 10-15 Q&A). The topic will be determined in consultation with the student's major advisor.
3. **General Pre-doctoral Exams**. Each student shall take a General Examination at or near the end of the course work program.
4. **Dissertation Proposal (formerly Prospectus)**. Students must file a Dissertation Proposal of the proposed research to the Graduate School. This proposal must be approved and signed by all advisory committee members and by the Department Head. When a student has passed the General Pre-doctoral Examination and successfully defended an approved Dissertation Proposal, they are advanced to doctoral candidacy status.
5. **Dissertation Defense**. Upon completion of the dissertation research and the writing of the dissertation, the candidate presents and defends the research before faculty and students.

1. Plan of Study

A Plan of Study must be filed by all graduate students (usually after the first year). To complete a Plan of Study, the student must know their research area, select an advisory committee, and make an outline of course work. Plan of Study forms are available from the Graduate School online. Approval must be obtained **prior to** the completion of the general examination. The NUSC program opts out of the related area/foreign language requirement of the graduate school, thus these graduate school requirements do not apply.

Courses listed in the Plan of Study:

1) Should meet core requirements for the Nutritional Sciences graduate program: NUSC 5100, NUSC 5200, 5300, 1 credit of NUSC 5394, 3 credits of Statistics, *GRAD 5910 Responsible Conduct of Research and a ***minimum*** of 6 additional graduate credits plus 15 credits of research for the dissertation (GRAD 6950).

   *Students may also satisfy the Responsible Conduct in Research (RCR) requirement by completing a 2-day RCR workshop offered by the Office of the Vice President for Research. *However, this workshop is not offered for academic credit; therefore, the 1 credit from GRAD 5910 must be replaced with an additional graduate credit from another course.*

2) Graduate courses offered by the Department of Nutritional Sciences: **NUSC 5100:** Concepts of Nutrition, **NUSC 5200:** Macronutrient Metabolism, **NUSC 5300:** Vitamins and Minerals, **NUSC 5312:** Assessment of Nutritional Status, **NUSC 5314:** Nutrition for Healthy Communities, **NUSC 5390:** Field Work in Community Nutrition, **NUSC 5398:** Special Topics in Nutrition, **NUSC 5394:** Seminar, **NUSC 5399:** Independent Study, **NUSC 5400:** Molecular Techniques and Instrument Analysis in Nutrition**, NUSC 5500:** Food Colloids and Nanotechnology, **NUSC 6311:** Regulation of Food Intake and Energy Balance. **NUSC 6313:** Nutrition and Gene Expression, **NUSC 6315:** Lipid Metabolism in Health and Disease, **NUSC 6317:** Nutrition Epidemiology, **NUSC 6319:** Research Design and Methods.

2. Departmental Seminar

During the third or fourth semester of study, all Ph.D. students must present a departmental seminar on a topic that is **not directly related** to their dissertation research. Students should undertake a thorough review of the existing literature and present major findings on a specific topic. An example format that can be used is 1) introduce the topic, 2) discuss the findings of 2-3 major papers (controversial data are encouraged), 3) summary and conclusions, and 4) future research in this area. Inclusion of preliminary data from the student's dissertation or reference to their current work is not appropriate for this presentation.

The student, in consultation with their major advisor, is responsible for scheduling this seminar with the departmental seminar coordinator. The title of the seminar must (or should) be given to the coordinator before the beginning of the semester.

3. Pre-Doctoral Exams

The pre-doctoral exams have two components: 1) written and 2) oral. These examinations may take place before or after the defense of the dissertation proposal. Ph.D. students must pass both exams (as well as submit an approved dissertation proposal) to be considered Ph.D. candidates. For the oral and the written parts of this exam, 5 faculty members are required as reviewers/readers. Since the advisory committee of the students consists of 3-5 faculty members, the rest of the examination committee should be appointed by the major advisor in consultation with the advisory committee. It is preferred that the rest of the examination committee is composed of members from the Nutritional Sciences Department.

a. Written Exam

This examination is open book, normally comprised of three questions to be answered over the period of several weeks of intensive reading and writing. The advisory committee members will create the three questions. The Ph.D. qualifying examination will require the student to identify and integrate information from the literature.

Usually, the first question is related to the student's research area (and comes from the major advisor), the second and the third questions are in a supporting area (provided by advisory committee members). The student is given a fixed amount of time, between one

to two weeks, to complete a question. The major advisor may provide a preliminary critique of the student's answer to each question prior to the student receiving the next question.

Answers to the questions will be evaluated by at least five faculty members. The advisory committee will evaluate all answers and additional faculty readers will be asked to evaluate answers (up to at least five total faculty evaluators). The faculty is asked to complete their evaluation of the question within **two weeks** of receiving it. The final decision regarding the passing or failing of a question shall be made by the advisory committee, considering the comments of all readers.

The decision to pass the student on the Ph.D. general examination Part I will be based on all the questions. A student failing more than one question will be asked to leave the NUSC Ph.D. program. A general guideline for evaluation of answers is provided below:

Pass
Acceptable Answer

a. There is an integrated analysis of the information presented
b. The major point of the question is understood and addressed properly
c. All the major aspects of the question are covered
d. Most of the important references are included
e. The answer follows an orderly logical progression
f. The writing is clear and concise.

Rewrite
Potentially Acceptable Answer

a. The major point of the question is understood, and an attempt is made to address it
b. One or two major areas, which should be addressed in the response, are not covered
c. Some significant references are not included
d. The answer is flawed in its logical progression
e. The answer does not include a well-integrated analysis of the topic
f. The writing needs improvement

Fail

a. The major point of the question is not understood and, therefore, not addressed
b. The most appropriate references are not included
c. The answer does not follow an orderly, logical progression
d. There is no integration of the information presented.
e. The answer is poorly written (unclear, poor sentence structure, poor spelling, etc.)

b. Oral Exam

Students will take the oral exam only after passing the written exam. It is recommended that the oral examination takes place soon afterwards and within six months after finishing the written exam. The examination committee, as indicated above, consists of five faculty members.

During the oral exam, students will be asked questions that cover multiple areas of nutrient metabolism, physiology, and other nutrition-related topics that the advisory committee finds pertinent. The exam lasts an average of 2 hours. All five members of the examination committee will ask questions and will vote at the end whether the student has: passed, conditionally passed (the student will have to do additional work in agreement with the examination committee) or failed.

If a student fails the oral exam, they will have one more chance to retake this exam in the next six months. If they fail the oral exam a second time, they can no longer continue in the Ph.D. program.

Master of Science Degree in Transit

This is awarded when a Ph.D. student wishes to be awarded a Master's degree prior to completing their Ph.D. Program. The Master's degree in Nutritional Sciences may be awarded to a Ph.D. student who has already passed the written and oral pre-doctoral exams. This decision is generally made by the major advisor in consultation with the Ph.D. candidate. The major advisor needs to request this in writing on the form "Report for the General Examination for the Doctoral Degree." The major advisor needs to write under "Comments" that the Master of Science degree should be awarded to this Ph.D. candidate.

4. Dissertation Proposal

The dissertation proposal defense should be completed normally no later than the end of the third year of full-time Ph.D. study.

The Dissertation Proposal is to be prepared in consultation with the members of the advisory committee before the research is well underway. The department head will appoint two expert reviewers from outside the advisory committee to conduct a critical evaluation of the Dissertation Proposal. The evaluation may take the form of a reading of the proposal or attendance at an oral presentation and discussion of the proposal. The approved Dissertation Proposal must bear the signatures of the student's advisory committee, as well as the signature of the department head verifying satisfactory review by two experts outside of the advisory committee. The Graduate School will not grant final approval of the Dissertation Proposal without proof of any required IRB or IACUC approval granted.

The proposal defense is open to all faculty members and students. The general format is a presentation of a maximum of 45 minutes, followed by an open question period, and then a more intensive examination process restricted to the student's advisory committee, as well as the two external reviewers (if necessary). Students and faculty should allow two to three hours for this exam. It is expected that revisions and new perspectives will result from the examination. These revisions should not be construed as failure, but simply as the process of science. A student may fail the examination if in the opinion of the advisory committee, they do not meet the minimum requirements for a defendable proposal, outlined above, and do not demonstrate an independent understanding of the research during the defense. If a student fails a second time, the advisory committee will ask them to resign from the doctoral program.

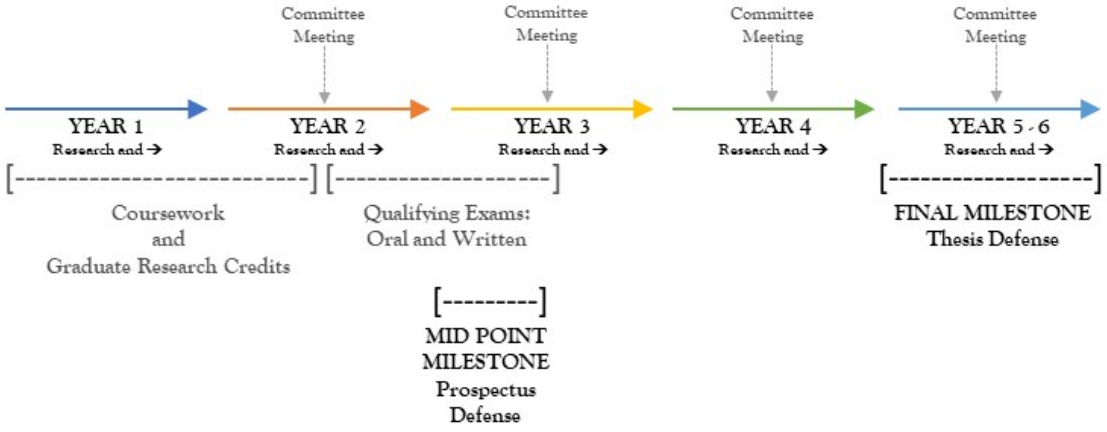
5. Dissertation Defense

The final examination (dissertation presentation) shall be oral and under the authority of the advisory committee. The vote of the advisory committee must be unanimous. Not fewer than five members of the faculty, including all members of the candidate's advisory committee, must participate in the final examination, unless written approval for a lesser number has been secured in advance from the Dean of the Graduate School. All content issues related to the dissertation must be resolved by the committee before the presentation. Thus, a presentation date can only be scheduled when the dissertation is ready and **in its nearly final form.** Students must give committee members a minimum of 1 week to review the final draft of the dissertation and may not schedule a defense date without approval from their major advisor. To present a dissertation defense, students must complete the following**:**

1) Obtain written clearance from the graduate school that all requirements have been met.
2) Schedule a room for the final defense and reserve audio-visual equipment as needed.
3) Send a draft copy of their dissertation to the advisory Committee **at least 1 week prior** to the oral defense. The sending of this email indicates that the major advisor has read and approved the draft copy.
4) Send official notification to the Graduate School **at least 2 weeks** before so that notice of the presentation can be made to the University community (via UConn Events Calendar).
5) Provide an abstract and presentation notice in electronic form to the department **at least 1 week** before the defense. The major advisor, the graduate program coordinator, or the secretary can make this announcement.

The procedure for moderation and criteria for passing the presentation are the same as with the dissertation proposal defense. Immediately following the examination, the major advisor must discuss the results with the student and send the official report on the examination to the Graduate Records Office. The Graduate School requires the electronic submission of the dissertation through OpenCommons@UConn, a University repository for public access. The final copy must meet all specifications outlined on the Office of the Registrar's website. The Dissertation Submission Checklist must be submitted to the Office of the Registrar with an approval page bearing original signatures of all members of the advisory committee.

Example Flow Chart for Ph.D. Program



Checklist for Ph.D. Degree (Completed in Coordination with Major Advisor).

____ SELECTION OF AN ADVISORY COMMITTEE BEFORE COMPLETION OF 12 CREDITS OF DEGREE PROGRAM COURSEWORK.

____ SUBMIT PLAN OF STUDY (NO LATER THAN COMPLETING 18 CREDITS)

____ DEPARTMENTAL SEMINAR

____ QUALIFYING WRITTEN EXAMINATION

____ QUALIFYING ORAL EXAMINATION

____ DISSERTATION PROPOSAL SUBMITTED TO ADVISORY COMMITTEE/READERS AND EXTERNAL REVIEWER

____ DISSERTATION PROPOSAL DEFENSE

____ APPROVAL OF WRITTEN DISSERTATION BY COMMITTEE MEMBERS ELECTRONICALLY

____ SUBMISSION OF DISSERTATION DEFENSE ANNOUNCEMENT TO THE GRADUATE SCHOOL

____ DISSERTATION DEFENSE

____ FINAL CORRECTIONS OF DISSERTATION

____ APPLICATION FOR DEGREE

____ SUBMISSION OF ONE ELECTRONIC COPY OF THE DISSERTATION TO THE GRADUATE SCHOOL

____ COMPLETE PH.D. SURVEY ONLINE

____ BOUND COPY OF DISSERTATION TO EACH MEMBER OF THE COMMITTEE.