

Graduate Advising Handbook

2016-2017



Nutritional Sciences

8th Edition

Focus of this Resource Material

The focus of this resource material is for the M.S. and the Ph.D. in Nutritional Sciences.

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Acknowledgements

The original content for this resource comes from materials prepared by Dr. Carolyn Henry for a graduate advising session for HDFs faculty held during spring 2007. The information has been updated and adapted for the graduate degree programs in Nutritional Sciences (NSCI).

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1. Admission to NSCI Graduate Programs

1-1. Admission Process

Prospective graduate students complete the on-line Graduate College Application and pay the application fee to the Graduate College. When applicants complete the on-line application, they will be asked to submit copies of transcripts, a two to three page statement of professional goals and research interests, a copy of their resume, and names and email addresses for three professionals who will receive emails requesting letters of recommendation. Additionally, prospective graduate students should request that their Graduate Record Examination (GRE) scores be sent OSU (OSU's GRE institution code is 6546, NSCI code is 0214). Applicants for whom English is a second language must submit Test of English as a Foreign Language (TOEFL) scores (OSU code is 6546) or International English Language Testing System (IELTS) Academic Test scores to the Graduate College.

Once these materials are submitted and the letters of recommendation are received, an electronic "application referral" is generated by the Graduate College and sent to the academic units for decision/action. The Graduate College sends application referrals for prospective graduate students to the NSCI Graduate Coordinator.

Once an application is complete the NSCI graduate faculty will review the application and make an admission recommendation. This departmental recommendation will be made within 30 days for M.S. students. For Ph.D. applicants, this recommendation will be made once the application is complete and an advisor and funding source are identified. The admission recommendation is indicated on the electronic referral by the Graduate Coordinator and returned to the Graduate College. Based on the admission recommendation, the Graduate College generates a notification letter to the prospective student.

1-2. Admission Requirements

NSCI graduate faculty will review the following information before making an admission decision:

- On-line Graduate College Application including
 - Copies of transcript(s) showing a required minimum undergraduate overall GPA of 3.0 in all undergraduate, graduate and professional school coursework to be considered for full admission (grades for science courses are also evaluated)
 - Three letters of recommendation
 - 2-3 page statement of professional goals and research interests
 - Resume or curriculum vitae
- GRE scores showing preferred scores of 150 for verbal reasoning, 150 for quantitative reasoning and 4.0 for analytical writing
- TOEFL scores of 79 on the internet based test or IELTS scores of 6.5 on the Academic Test are required when English is a second language

1-3. Admission Recommendation

When the prospective graduate student's file is complete, the graduate faculty members in the NSCI Department make a recommendation to admit or not. (Note: the faculty give an admission recommendation; the final/official admission decision is made by the Dean of the Graduate College.) The admission recommendation is submitted electronically to the Graduate College.

One of the following options must be specified on the application referral form:

Admission endorsement

- Admissible without qualification
- Admissible on a provisional basis
- Admissible on academic probation (*The applicant must make at least a "B" in the first 9 credits of enrollment or be dismissed from the Graduate College.*)

Not Admissible...

- because academic background and/or experience not sufficiently aligned with program
- because application was incomplete (all required program materials not received)
- due to grades
- due to space (program is unable to accommodate additional students at this time)
- due to test scores
- for other reasons

1-4. Admission Deadlines

For domestic students the deadline for completed applications is July 1st for a Fall semester start date and November 1st for a Spring semester start date. Deadlines for international students are February 1st for Fall and August 1st for Spring. Those applications that are received **by January 1st** (for a Fall semester start date) will be the most competitive for financial assistance through fellowships and assistantships.

1-5. Graduate Research Assistantships and Teaching Assistantship Positions:

Graduate research assistantship (RA) and teaching assistantship (TA) positions are awarded on a competitive basis within the department. For TA positions, priority is given to doctoral students and those positions are usually awarded in February or March for the following academic year. RA positions are awarded on a competitive basis by individual faculty members who may be interested in having a student work on one of their research projects.

Students who are interested in applying for RA and TA positions should complete the appropriate section in the on-line application. Students who are interested in an RA position should also review the graduate faculty research areas on the NSCI website (<http://okla.st/NSCIDirectory>) as they complete the application form and then contact those faculty members to inquire further about their research and any openings.

An offer of an assistantship is a commitment by a department to provide financial support to admitted graduate students. Assistantships are an investment made by a department and are granted primarily to enable the student to pursue an advanced degree and gain valuable experience. Accepting an assistantship brings with it a professional obligation to fulfill all of the responsibilities associated with the assistantship assignment. Included in this professional obligation is the expectation that students who have accepted an assistantship will diligently pursue their degree to completion. The TA/RA appointment is subject to satisfactory progress toward the degree, satisfactory performance of assigned duties, availability of sufficient funds, and compliance with all department, program, Graduate College and university rules, regulations, and requirements. This appointment may be renewed based on those same conditions.

A student with an 0.5 FTE assistantship is expected to devote, on average, no more than 20 hours per week to their duties as a graduate teaching or research assistant; the remainder of academic effort is devoted to his/her own studies and research. The time devoted to the

assistantship may vary from day to day and week to week as long as it does not exceed the average given above.

Students who are hired on a teaching assistantship will be paid from the first day of the semester to the last day of finals each semester. The length of research assistantship appointments will vary so contact your supervisor/advisor to determine your employment dates and plans for holidays and vacations. Students who are employed in a TA or RA position must be enrolled in a minimum of two credit hours each semester (including summer).

All students who receive an assistantship (TA or RA position) with at least a half time (0.5 FTE) appointment are responsible for completing a contract with the Graduate College *before the first week of each semester* in order to receive a tuition waiver. Contracts can be found under the GTA/GRA Tuition Waiver Contracts tab at <http://gradcollege.okstate.edu/forms>.

Tuition waivers will pay for tuition (but not fees) for a maximum of 33 credits for M.S. students and a maximum of 66 credits for Ph.D. students who receive at least 0.5 FTE appointments.

The University provides health insurance to students who are employed as a TA or RA. See <http://gradcollege.okstate.edu/content/graduate-student-health-insurance-information> for additional information.

Students who are employed as teaching assistants must complete the Family Educational Rights and Privacy Act (FERPA) tutorial about the privacy of student records before starting their teaching/grading responsibilities. The FERPA tutorial is available at <http://registrar.okstate.edu/FERPA-Tutorial>.

Students for whom English is a second language will be required to pass the International Teaching Assistant (ITA) Test before they can be assigned responsibilities in front of the classroom, although they may grade papers. For additional information on the ITA test, go to <https://gradcollege.okstate.edu/ita>.

1-6. Professional Dress for Students with Teaching or Laboratory Responsibilities

Teaching assistants/associates with classroom responsibilities in NSCI need to dress as professionals, not students. Dress and overall appearance should assist students in identifying the teaching assistant as an instructor. “Business casual” attire is expected. The following are examples of inappropriate attire for teaching assistants: tank tops, athletic shorts, sweat pants, and flip-flops. In general, if a TA wears the clothing to work out, it is most likely inappropriate for the classroom.

Research assistants/associates who work in the laboratory should wear clothing that offers protection from splashes and spills and should be easily removable in case of accident. No sandals, open toed shoes or clogs shall be worn by laboratory personnel. Laboratory clothing should be kept clean and replaced when necessary.

1-7. Advisor Selection

The advisor’s primary responsibility is as a mentor. As a result, it is expected that the advisor will establish the closest working relationship with the student. The advisor must hold an appropriate OSU Graduate Faculty appointment, but need not hold an OSU faculty appointment if not serving as Chair. The advisor guides and counsels the student in the research or scholarly effort, ensuring compliance with applicable research regulations. The advisor serves as the primary resource for the graduate student in identifying potential

committee members for the student's advisory committee. The advisor is responsible for reporting to the advisory committee on the student's progress. It is the advisor's responsibility to mentor the student toward a research, scholarly or creative project that is original and worthy of the degree sought. The advisor is typically involved in the preparation of scientific or creative presentations, manuscripts for publication, etc. that result from the research conducted by the student.

1. Ph.D. program: Before a prospective doctoral student can be formally admitted to the program, a faculty member must be identified and agree to serve as advisor/mentor and a funding source must be identified to support the student's graduate work.
2. M.S. program: Prospective masters students are not required to have an advisor identified prior to admittance. The Graduate Coordinator, with the help of support staff, will serve as a temporary advisor for the student until the advisor is identified. Students are strongly encouraged to select a research advisor by the beginning of their second semester and must select an advisor by the time their plan of study is due (see 3.9 and 4.9 below).
3. A student may change advisors at any point in their program. If a student wishes to change their advisor, it is the responsibility of the student to notify their current advisor and identify another advisor.
4. If a student's research advisor leaves OSU before a student completes his/her degree, the following steps may be taken after consultation with the research advisor and Graduate Coordinator:
 - If the student is close to finishing his/her degree (e.g., has an approved proposal and is within a year of finishing his/her degree), and resources are available, the student may choose a new graduate committee chair to guide him/her through the completion of the research project under the direction of the original research advisor. The original research advisor will continue as a member of OSU's graduate faculty, attend (in person or electronically) the student's thesis/dissertation defense, and fulfill his/her obligations to the student.
 - If a student is in the early stages of a research project (e.g., the student does not have an approved proposal), he/she should choose a new advisor and start a new research project (M.S. students may also change to the non-thesis option).
 - If the student is in the middle of his/her project, the student will work with the research advisor and graduate coordinator to determine an appropriate course of action.
 - A student may transfer to the advisor's new educational institution.
5. When a student and faculty advisor can no longer work together, the situation should be discussed with the Graduate Coordinator to try to work out a solution. If students are terminated from research groups because of unsatisfactory progress or behavioral issues, they should not anticipate that another research advisor will be found. Masters students in the thesis option will have the opportunity to change to the non-thesis option if they are able to identify an advisor. However, M.S. and Ph.D. students will be dismissed from the Department's Graduate Program if they are unable to find a new advisor within 30 calendar days.
6. There is no absolute legal obligation on the department or university to find an advisor for the student.

1-8. Transfer of Credits

Transfer of graduate courses will only be considered if it was earned when the student was post-baccalaureate (i.e. after earning a bachelor's degree) at an accredited institution and the applicable course (s) was/were certified as graduate credit by that institution.

Transfer of Credits – M.S.

If approved by the advisory committee and Graduate Coordinator on the Plan of Study (POS), a student can count 9 graduate credits taken at another M.S. degree institution toward the OSU M.S. degree. A grade of “B” or better is required in transferred credits.

Transfer of Credits – Ph.D.

At least 30 credits on the POS must be from OSU. No more than 9 credits may be transferred from a non-doctoral granting institution. A grade of “B” or better is required in transferred credits. Approval of the transferred credits is subject to approval on the POS by the advisory committee and Graduate Coordinator.

2. Academic Requirements

2-1. Time Limits

Students are expected to complete the requirements for a masters degree within **seven** years from first enrollment after admission to the program. Students are expected to complete the requirements for a doctoral degree within nine years from first enrollment after admission to the program. After that time, a student must submit a written petition to the Graduate College requesting an extension of time for degree completion. Credit for all courses on a graduate plan of study must have been awarded within **ten** years of completion of all degree requirements. Any exception to these time limits must be approved by the Dean of the Graduate College.

2-2. Enrollment Guidelines

- Graduate students must complete a minimum of six credits during each 12-month period to be continuously enrolled.
 - Full-time enrollment for graduate students is 9 credits during the Spring and Fall semesters and 4 credits during the Summer semester.
- For students on assistantship, full-time enrollment for the Spring and Fall semesters is based on the percentage of employment.
 - For students employed at 0.50 FTE, full-time enrollment for the Spring and Fall semesters is at least 6 credits and 2 credits for the summer semester.
- Ph.D. students who have been admitted to doctoral candidacy and have had their [Admission to Doctoral Candidacy](#) Form accepted by the Graduate College may enroll for a minimum of 2 credits during any term and be considered full-time. The form (available from <http://gradcollege.okstate.edu/forms> under the "Current Graduate Students" heading) must be submitted by the end of the semester before they are electing to start the reduced continuous enrollment.
- Graduate students must be enrolled in a minimum of 2 credits during any semester they are utilizing the University resources.
 - All graduate students are required to be enrolled in at least 2 credits the semester they graduate.
- A graduate student may not enroll in more than 12 credits in the fall or spring semester without permission of the dean of the Graduate College. During the summer session, a student may not enroll in more than 9 credits taken in any session during the 8-week summer period. No more than one graduate level intersession course should be taken at a time. Summer intersession is defined as any course that begins after the end of the spring semester and ends prior to the beginning of the 8-week summer session. For any short course session less than 8 weeks in length, enrollment shall not exceed one credit for each week.
- All students (including those enrolling in research credits only) must be enrolled by the deadlines listed in the Class Schedule.
- Graduate students are expected to maintain active status through continuous enrollment from the time they matriculate until they graduate. Students who are not able to maintain active status are strongly encouraged to consult with their program, advisor, and Graduate College to determine whether requesting a leave of absence is the most appropriate course of action. The policy and forms for a leave of absence are available from <http://gradcollege.okstate.edu/forms> under the "Current Graduate Students" tab.

2-3. Grades for Thesis (5000) and Dissertation (6000)

The grade of "SR," indicating satisfactory research progress, or "UR," indicating unsatisfactory progress will be assigned to thesis (5000) and dissertation (6000) courses at the end of the semester in which the course is taken. These grades are permanent and have no impact on a student's grade point average. Only NSCI 5000 and NSCI 6000 in which a grade of "SR" (or a previously awarded grade of "R," "A," "B," or "C") is earned may be used toward minimum degree requirements.

2-4. Policy on Academic Performance, Probation, and Termination

In addition to adhering to the policies of the Graduate College, for a graduate student to remain in good standing in the NSCI Graduate Program, they need to:

- meet or exceed the 3.0 grade-point average (GPA) established by the Graduate College; and
- earn no grade below a B in a core course with a NSCI prefix; and
- be continuously enrolled (as defined by the Graduate College); and
- earn satisfactory research (SR) grades in NSCI research credits (i.e., NSCI 5000 or 6000); and
- meet all other requirements as specified in the NSCI Graduate Handbook

Graduate students will be placed on probation if:

- they earn a grade below a B in any course; or
- their GPA drops below 3.0; or
- they earn a grade of UR, indicating unsatisfactory progress, in research credits (NSCI 5000 or 6000); or
- they fail to make appropriate progress toward their degree as determined during the annual review.

Graduate students can be dismissed from NSCI Graduate Programs for one or more of the following reasons:

- failure to meet academic standards defined as a cumulative GPA less than 3.0 for three consecutive semesters; or
- receipt of three grades of C or lower in courses on the plan of study; or
- unsatisfactory research (UR) grades in two semesters; or
- failure of the final defense for the M.S. or Ph.D. degree; or
- failure on the qualifying or comprehensive examinations for the Ph.D. degree two (2) times.

Note. In the case of extenuating circumstance, students may petition the NSCI graduate faculty to be reinstated to the program.

2-5. Responsible Conduct of Research

All graduate students are required to complete the Collaborative Institutional Training Initiative (CITI) training in the responsible conduct of research (RCR) by the end of their second semester. For NSCI graduate students employed as a research assistant on an externally funded grant, this training must be completed by **September 30th** for students entering in the Fall semester and by **January 31st** for students entering in the Spring semester. Students who do not complete this training will be at risk of losing their assistantship.

For instructions on training go to <http://compliance.okstate.edu/rcr/training>. Students will need to register on the website and affiliate themselves with Oklahoma State University (Stillwater campus). After logging in, select "Add a Course" then select a Responsible Conduct

of Research course (either Biomedical or Social and Behavioral is acceptable). Once a student completes the training, she/he should print out the completion certificate and submit it to the staff in the NSCI Department office in HS 301.

3. Ph.D. Advising

3-1. NSCI Ph.D. Curriculum

Ph.D. in Nutritional Sciences

3-2. Prerequisites for the 60 credit Ph.D. program

1) Completion of a M.S. thesis or thesis equivalent project. If a thesis was not completed as a part of the M.S. program, a thesis or equivalent, as determined by the student's advisory committee, must be completed in addition to the minimum 60 credits past the M.S. degree.

2) Prerequisite coursework includes a minimum of one course (graduate or undergraduate) in biochemistry and physiology, 6 credits of graduate level nutrition and 3 credits of statistics.

3) For students with a degree in a subject area other than nutrition, a minimum of 30 credits of undergraduate/graduate coursework related to nutritional sciences is needed. These students may be required by their committee to take certain prerequisite or "leveling" courses.

Leveling Courses:

- Biochemistry (undergraduate or graduate course)
- Physiology (undergraduate or graduate course)
- Graduate level nutrition (6 credits)
- Graduate statistics (3 credits)

3-3. Ph.D. Course Requirements

The plan of study (POS) for a doctoral student is individually planned to develop academic excellence specific to the student's career goals. The selection and organization of courses are made in consultation with the advisor and the student's advisory committee based on the following framework.

1) Nutritional Sciences (Area of Specialization 18-30 credits)

Core Courses Required within Specialization

- NSCI 5033 Macronutrients in Human Nutrition
- NSCI 5043 Micronutrients in Human Nutrition
- NSCI 6960 Seminar: Emerging Topics in Nutrition (2 credits, max 4)

The remaining coursework within the area of specialization may be taken from the following recommended list or alternative courses as deemed appropriate by the student's advisory committee.

- NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease
- NSCI 5133 Advanced Nutrition for Exercise and Sport
- NSCI 5363 Maternal and Infant Nutrition
- NSCI 5373 Childhood Nutrition
- NSCI 5393 Nutrition and Aging
- NSCI 5453 Nutrition and Health Disparities
- NSCI 5543 Obesity Across the Lifespan
- NSCI 5553 Global Nutrition and Food Security
- NSCI 5563 Nutritional Assessment
- NSCI 5613 Advanced Nutrition Education and Counseling

- NSCI 5643 Advanced Medical Nutrition Therapy
- NSCI 5713 Advanced Community Nutrition
- NSCI 5743 Advanced Laboratory Techniques in Nutrition
- NSCI 5870 Problems in Nutritional Sciences
- NSCI 6033 Phytochemicals in Reduction of Chronic Disease
- NSCI 6223 Nutrition and Immunology
- NSCI 6870 Independent Study in Nutritional Sciences
- BIOC 4113 Molecular Biology
- BIOC 5824 Biochemical Laboratory Methods
- BIOC 6763 Nucleic Acids and Protein Synthesis
- BIOC 6773 Protein Structure and Enzyme Function
- BIOC 6783 Biomembranes and Bioenergetics
- CPSY 5173 Gerontological Counseling
- CPSY 5473 Basic Counseling Skills
- CPSY 5503 Multicultural Counseling
- HDFS 5413 Adult Development and Aging
- HDFS 5423 Research Perspectives in Gerontology
- HDFS 5433 Theories of Aging
- HHP 5593 Human Electrocardiographic Interpretation
- HHP 5613 Cardiac Rehabilitation
- HHP 5853 Stress Testing and Exercise Prescription I
- HHP 5873 Human Bioenergetics
- HLTH 5113 Psychological Aspects of Health
- HLTH 5323 General Epidemiology
- HLTH 5453 Cultural Issues in Health
- MGMT 5113 Management and Organization Theory
- SCFD 5873 Culture, Society and Education
- SOC 5333 Global Population and Social Problems
- VBSC 6120 Advanced Physiology of Selected Systems
- ZOOL 4215 Mammalian Physiology
- ZOOL 5283 Endocrinology

NOTE. NSCI 5303, 5333 and 5353 are levelling courses and may not be used on a plan of study. NSCI 5412, NSCI 5422 and NSCI 5432 are supervised practice experiences associated with the dietetic internship and should not be included on the POS to meet degree requirements.

2) Human Sciences (3 credits)

Core Requirement

- HS 6993 Graduate Seminar in Human Sciences

3) Research Support Courses (18-30 credits)

Core Requirements within Research Support Courses

- NSCI 6453 Advanced Research Methods in Nutritional Sciences (or NSCI 5123 or equivalent course)
- STAT 5023 Statistics for Experimenters II, STAT 5083 Statistics for Biomedical Researchers or equivalent

The remaining 12-24 credits of coursework should consist of courses in intermediate and advanced statistics, advanced research methodology and advanced research methods. These courses may be taken from the following recommended list or alternative courses as deemed appropriate by the student's committee.

- EPSY 6063 Research Applications with Q Methodology
- REMS 5013 Research Design and Methodology
- REMS 5963 Computer Applications in Nonparametric Data Analyses
- REMS 6003 Analyses of Variance
- REMS 6013 Multiple Regression Analysis in Behavioral Studies
- REMS 6033 Factor Analysis in Behavioral Research
- REMS 6373 Program Evaluation
- REMS 6663 Applied Multivariate Research in Behavioral Studies
- SCFD 5913 Introduction to Qualitative Inquiry
- SCFD 6123 Qualitative Research I
- SCFD 6193 Qualitative Research II
- SOC 5213 Techniques of Population Analysis
- SOC 5273 Qualitative Research Methods
- STAT 4043 Applied Regression Analysis
- STAT 5033 Nonparametric Methods
- STAT 5043 Sample Survey Designs
- STAT 5053 Time Series Analysis
- STAT 5063 Multivariate Methods
- STAT 5073 Categorical Data Analysis
- STAT 5091 SAS Programming
- STAT 5303 Experimental Designs

4) Dissertation (minimum of 15 credits and maximum of 30 credits)

Core Requirement

- NSCI 6000 Doctoral Dissertation

3-4. Requirements for the 90 credit Ph.D. Program

Students accepted into the 90 credit Ph.D. option will first complete all requirements for the M.S. degree in Nutritional Sciences (Nutrition, thesis option). Students will earn the M.S. in Nutritional Sciences upon successful completion of the 30 credits.

Students will then complete the same requirements as those in the 60 credit Ph.D. program.

- Minimum of 60 credits beyond the masters degree
- Minimum of 15 and maximum of 30 credits of dissertation coursework (NSCI 6000)
- HSCI 6993
- Courses in NSCI or related content areas
- Courses in Research Support areas

Students in the 90 credit Ph.D. program will take a qualifying exam after their first year in the program and upon completion of the core coursework (12 credits). To pass the qualifying exam, students must score 70% or better; students will have one opportunity to retake the qualifying exam. If a student is unable to pass the qualifying exam she/he will not be permitted to remain in the Ph.D. program and will be advised to complete the M.S. degree program.

3-5. Graduate Student Advisory Committee for Ph.D. Students

The Ph.D. degree advisory committee should consist of a minimum of 4 members. The chair and at least two members of the committee must be members of the graduate faculty in the NSCI Department. One member must be an OSU graduate faculty member from outside of the NSCI department. All committee members must be members of the OSU Graduate Faculty with appointments that authorize them to serve on doctoral committees.

Additional Ph.D. Advisory Committee Requirements:

- Any full member of the graduate faculty or associate members with authority to serve on doctoral committees can advise a dissertation.
- The advisory committee must have a “Chair”.
- The Chair must be a Full Member of the graduate faculty with “doctoral chairing privileges” granted by Group 1 Biological Sciences.
 - The Chair must hold an OSU tenure-track appointment at the level of assistant professor or higher and have documented mentoring activity and research accomplishments.

Roles, Responsibilities and Qualifications of the Chair and Advisory Committee Members:

Chair: the primary responsibility of the chair of a graduate student’s advisory committee is to monitor the progress of the student toward degree completion. The chair is commonly the research advisor, but this is not a requirement. The chair must have a strong familiarity with the academic requirements appropriate to the degree sought. The chair’s duties include convening meetings of the advisory committee, as appropriate; ensuring compliance with University and Graduate College policies, procedures and requirements; overseeing the plan of study and thesis/dissertation submission processes; and ensuring that the research topic undertaken is appropriate to satisfy degree requirements with the results openly accessible. If the chair is not also the advisor, the chair should serve as a liaison with the advisor with regard to progress of research in fulfillment of degree requirements.

Expert Committee Member(s): the expert members provide expertise and counsel that serve the graduate student in attaining the research, scholarly, creative or professional preparation goal that is worthy of the degree sought. An expert member’s responsibilities include guiding the research, scholarly or creative activities throughout the process, approving the plan of study, reviewing draft documents, attending regular meetings of the advisory committee, and interacting regularly with advisory committee members to facilitate and monitor degree completion progress.

Outside Committee Member: The advisory committee must also include one outside member who serves as the representative of the Graduate College and ensures a high level of integrity in the processes that the advisory committee utilizes to review and evaluate the student throughout the graduate program. The outside member must be a member of the OSU faculty and graduate faculty. The outside member must not be a faculty member from the academic unit or graduate program of either the graduate student, advisor or the chair of the advisory committee. The outside member ensures that appropriate academic standards are applied in evaluating the student, and that the student is dealt with in a fair manner consistent with OSU policies. The outside member also provides expert advice when appropriate to the student in the conduct of research and writing of the dissertation.

3-6. Procedure for Establishing Advisory Committee

The student will work with his/her advisor to identify appropriate committee members. Although the student has the ultimate responsibility for recommending his/her advisory committee membership, his/her advisor is a valued resource who can provide insight that will help the student make informed decisions. The student should meet with potential advisory committee members prior to recommending them to better understand their experience, availability, mentoring style and willingness to serve as an advisory committee member. The potential committee members will be contacted by the student or advisor and asked to serve on the student’s committee.

A student's advisory committee membership is official when the Plan of Study (POS) is signed. The POS will be submitted online to the Graduate College. Committee members will receive electronic requests to sign the POS as soon as the student submits the form online at: <https://app.it.okstate.edu/pos/>.

3-7. Changes to the Advisory Committee

When members of a student's advisory committee change, the student should complete the Graduate College's [Committee Change Request](http://gradcollege.okstate.edu/forms) form (see <http://gradcollege.okstate.edu/forms> under the "Current Graduate Students" tab or submit the form electronically through the Graduate Student Round-Up at <https://app.it.okstate.edu/pos/>). The student is responsible for obtaining needed signatures on this form if the submits the paper form; emails are sent to the committee members from the Graduate College when the form is submitted online.

3-8. Plan of Study (POS)

The POS is the advisory committee and Graduate College's contract with the graduate student regarding the courses s/he will take for his/her doctoral degree. No grade below a "B" in NSCI core courses may be counted toward the degree. Credit for all courses on a graduate plan of study must have been awarded within 10 years of completion of all degree requirements. The POS is submitted online at: <https://app.it.okstate.edu/pos/>.

See <http://gradcollege.okstate.edu/planofstudy> and <https://gradcollege.okstate.edu/faq-pos> for additional information on the POS.

3-9. When to File POS

The POS for Ph.D. students should be filed no later than the end of the student's third semester of enrollment. The student must submit the POS before enrolling for the next semester.

A student may request one extension for filing a Plan of Study. For a copy of the form, click this link http://gradcollege.okstate.edu/sites/default/files/Req_Extension_POS.pdf or see the Current Student - Plan of Study section of the Graduate College website <http://gradcollege.okstate.edu/planofstudy>.

3-10. When to Submit a Revised POS

If necessary, students should submit a revised (final) POS as they near the maximum number of hours allowed for the tuition waiver (66 hours) or prior to submitting the [Graduation Clearance](#) form. These forms should be submitted by the end of the second week of the semester (or the first week during summer) in which the student will complete the degree requirements. Please refer to the Graduate College webpage for deadlines (<http://gradcollege.okstate.edu/graduate-college-academic-calendar>).

Process for filing a revised POS: If the plan of study was submitted and approved in the Online Plan of Study application, simply log in to: <https://app.it.okstate.edu/pos/> and revise the approved plan. The system will load the complete plan that has been approved and allow the student to make changes then resubmit the POS. If it has not been approved by the Graduate College, contact the Graduate College and ask them to reject the POS so it can be modified.

3-11. Formal Dissertation Proposal

The doctoral student demonstrates his/her ability to apply foundational knowledge to a research problem by developing a quality dissertation proposal.

The dissertation proposal should include the following:

- statement of the research problem
- justification for the research problem
- an integrative literature review
- research hypotheses, specific aims and/or research questions
- methods and procedures
- plan for statistical analysis
- preliminary data (if appropriate)

The student/advisor should provide a copy of the proposal for the advisory committee at least a week before a scheduled meeting. During the meeting the student will deliver a 30-45 minute oral presentation on their proposed research project. Once the doctoral advisory committee approves the Formal Dissertation Proposal, the committee members and the Graduate Coordinator will sign a copy of the proposal for the student's file to verify the proposal was approved. The student submits a copy of the signed sheet and proposal to the NSCI departmental office and submits an electronic copy of the approved proposal to each member of the doctoral advisory committee.

The student who passed the qualifying examination, has an approved Plan of Study and dissertation proposal should obtain committee signatures on the [Admission to Doctoral Candidacy Form](#) at the conclusion of the proposal meeting (see section 3-13).

Data collection may occur only after the formal dissertation proposal is approved by the student's advisory committee and appropriate IRB/IACUC approval is secured. However, an exception to this policy is made in cases in which data included in the dissertation research is a part of the advisor's on-going program of research and the advisor has already obtained approval.

3-12. Qualifying Exams

Doctoral students are required to take and pass a qualifying exam which covers the core graduate program coursework in NSCI (which includes NSCI 5033, NSCI 5043, NSCI 6453 or 5123, and STAT 5023 or equivalent). The purpose of the qualifying exam is to assess the student's basic capacity for pursuing a doctoral degree in nutrition and to identify their strengths and weaknesses. Qualifying exams will be scheduled by the NSCI Examination Committee at least two times during the year. This committee will be made up of a member of the student's advisory committee (preferably not the chair) and a minimum of two additional NSCI graduate faculty members. Exam questions will be selected by the Examination Committee from a bank of pre-approved qualifying exam questions. The student must successfully pass the qualifying exam no later than 24 months after entering the program.

A passing score on the exam will be considered $\geq 70\%$. Students who do not pass the exam on the first attempt will be given the opportunity to retake the exam one time at the next scheduled date. Failure to satisfactorily pass the exam on the second attempt will result in the student being dismissed from the doctoral program and advised to pursue a masters degree or other alternatives. A study guide has been developed to assist students preparing for the exam (See Appendix A).

3-13. Admission to Doctoral Candidacy

To be admitted to candidacy, a doctoral student must have:

- an approved Plan of Study on file with the Graduate College,
- a dissertation proposal approved by the student's graduate committee, and
- passed the qualifying examination.

After completing the above stated criteria, the student should download the [Admission to Doctoral Candidacy](#) form from the Graduate College website (located in <http://gradcollege.okstate.edu/forms> under the Current Graduate Students tab) and complete the basic information. The student requests signatures from his/her advisory committee members. The student then submits the form for signature to the NSCI Graduate Coordinator and Dean of the Graduate College. Once the form is signed by the Dean of the Graduate College, the student is a doctoral candidate.

Doctoral students must be enrolled for at least six months as a doctoral candidate (i.e. formal admission to candidacy with paperwork filed) prior to graduation.

3-14. Comprehensive Exams

The purpose of the comprehensive exams is to assess each student's understanding of the many aspects of nutrition with the focus on the student's area of specialization. Students are eligible to take written comprehensive exams after:

- 1) successfully completing all prerequisites and the qualifying exam;
- 2) obtaining approval of the Plan of Study by the Dean of the Graduate College; and
- 3) successfully completing the following courses:
 - a. the doctoral program core coursework (with the exception of the seminar course, NSCI 6960 Seminar)
 - b. a minimum of 12 additional credits from courses in the specialization area
 - c. a minimum of 9 additional credits of research support courses (intermediate and advanced statistics; advanced research methods).

Students should plan to take their comprehensive exams prior to their final anticipated semester. Beyond these general guidelines, the specific timing of the exam should be determined by the student's committee chair and the advisory committee. Written comprehensive exams may be scheduled at any time during the academic year. Specific dates and times are determined by the student's committee chair and advisory committee members.

The doctoral student should notify the department's Graduate Coordinator at least one month prior to the exam date so the Graduate Coordinator may verify the student has completed all requirements before taking the exams.

The doctoral student's committee chair, in consultation with the advisory committee members, coordinates and administers the written comprehensive exams. Students should expect that total time allocated for written comprehensive exam questions will be between 16 and 32 hours. The student will be expected to complete the questions over the course of 1-2 weeks. Questions covering specific content areas are written and graded by the members of the student's committee. Students should receive written and/or verbal feedback from individual committee members once their exam question(s) is/are graded. This feedback should be provided within two weeks of taking the exam.

Advisory Committee Meeting After Written Comprehensive Exams:

Once the written exams are graded, an advisory committee meeting is scheduled within the next month (i.e. 30 days). This meeting must be scheduled at a time when all committee members can be present in person or via some means of telecommunication. During this

meeting the committee members may ask the student to clarify information related to the written comprehensive exam. The student must receive a “pass” on all content areas to pass the comprehensive exams.

In accordance with OSU Graduate College requirements, students who do not pass the comprehensive exams may retake the exams *after a four month waiting period, and only two attempts are allowed.*

- Students who retake written comprehensive exam questions must submit a notification to the Graduate Coordinator of plans to retake the exam.

In a second attempt to pass the comprehensive exam, students are required to retake content areas failed on the first attempt.

- Content areas passed on the first attempt are not retaken during the second attempt.
- Any student who does not pass the comprehensive exams after two attempts will be dismissed from the doctoral program.

3-15. Dissertation Process

Graduate students should follow the “Thesis/Dissertation Manual” available on-line from the Graduate College at: <http://gradcollege.okstate.edu/tdg>

Process:

- The student prepares the dissertation proposal.
 - The advisory committee must approve the proposal.
- Appropriate research approval (i.e. IRB or IACUC) is required for research involving human subjects or animals.
 - Advisor and student must submit the IRB or IACUC application and be current in the human subjects or animal use training (i.e., have a certificate of completion for the on-line training modules or OSU training sessions).
 - A copy of the IRB or IACUC approval notification memo is included in the dissertation.
- Data collection begins only after IRB or IACUC approval and the proposal is approved by the committee (unless the data is part of the advisor’s program of research and the advisor has already obtained approval).
- The advisor may determine if a “manuscript style” or “traditional dissertation format” will be used for the dissertation.
 - If “manuscript style” is used, the advisor determines format.
 - Generally, this format involves replacing Chapters 3 -5 of the dissertation (Methods, Results and Discussion) with the manuscript(s).
 - The student should follow the [Thesis/Dissertation Manual](#) guidelines for general formatting issues.
- The student attends a Thesis/Dissertation Workshop (or Webinar) sponsored by the Graduate College. To access the webinar, log into the Graduate Student Round-up site through <http://planofstudy.okstate.edu/> and select “Thesis/Dissertation Webinar” from the menu.
- The student prepares the dissertation using the template or the uniform formatting guidelines provided by the Graduate College: <http://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>
- Copies of the ‘final draft’ are provided to committee members with sufficient time to read and review before the dissertation defense (at least one week before the defense).
- The student obtains a copy of the [Thesis/Dissertation Oral Defense Results](#) form (available at <http://gradcollege.okstate.edu/forms> under the “For Graduation” tab).
- A dissertation defense meeting is held with the advisory committee.
 - At the conclusion of the meeting, the advisor submits the [Thesis/Dissertation Oral Defense Results](#) form to the Graduate College.

- The student completes revisions to the dissertation and obtains committee approval/signatures.
- Student electronically submits the final copy to the Graduate College.
- The student submits a paper copy of dissertation signature (approval) page to the Graduate College. For copies of the templates for this page, go to <http://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>.

3-16. Dissertation Oral Defense

Once the final draft of the dissertation is approved by the advisor, the oral dissertation defense should be scheduled with the advisory committee. The meeting must be held at a time when all advisory committee members can be present in person or via some means of distance communication.

The student should notify the staff in the NSCI Department office a minimum of two weeks prior to the scheduled date so that appropriate announcement of the meeting time and place can be advertised.

The oral presentation portion of the meeting is open to all interested parties who would like to attend. This open session will be followed by a closed meeting of the student with the advisory committee. During the closed meeting the committee will ask questions related to the dissertation. At the conclusion of the meeting, the student is provided specific instruction as to the revisions that are required in order for the dissertation to be “complete”. The advisor should submit the [Thesis/Dissertation Oral Defense Results](#) form to the Graduate College.

3-17. Dissertation Deadlines

Refer to the “Graduate College Academic Calendar” for deadlines pertaining to dissertation submission: <http://gradcollege.okstate.edu/graduate-college-academic-calendar>

The following items must be submitted to the Graduate College by the deadline:

- [Graduation Clearance](#) form
- Application to Graduate (filed in Banner once the Graduation Clearance Form has been approved by the Graduate College)
- [Thesis/Dissertation Oral Defense Results](#) form (submitted by advisor or NSCI office staff to the Graduate College)
- Final online submission of dissertation
- Submission of a signed paper copy of the signature page to the Graduate College (see <http://gradcollege.okstate.edu/content/thesis-and-dissertation-templates> for instructions)

3-18. Ph.D. Student Competencies

1. Doctoral students will gain experience in *Generating Knowledge*, *Sharing Knowledge*, *Community Engagement*, and *Resource Generation*, as well as in NSCI and supporting content areas (please refer to Appendix B). Examples given are illustrative rather than prescriptive.
2. To develop competence, Ph.D. students will engage in all of the activities listed under *Generating Knowledge*. For *Sharing Knowledge*, each doctoral student is expected to complete at least one of the activities listed during their Ph.D. program and present at least one seminar, research presentation, or poster to their committee or at a professional meeting each year. Participation in *Community Engagement* and *Resource Generation*

activities will be determined by the student's committee based on the student's career goals. Recognizing the importance of accountability, the student (in consultation with his/her committee) will document the necessary experiences to be completed during the doctoral program in order to achieve competence. The annual doctoral review will serve as a mechanism to gauge the student's progress. By the end of their program, the Ph.D. student should develop a portfolio that documents his/her accomplishments relative to these experiences.

3. The notion of *reflective practice*, that is, observation and reflection plus practice, critique and reflection, will permeate doctoral students' experiences. Instilling this concept in doctoral students facilitates an understanding that reflective practice is another method of learning in addition to reading the scholarly literature, attending conferences, etc.

3-19. Annual Review of Ph.D. Students

All Ph.D. students are expected to complete an annual review (self-assessment) in April-May each year. The student's committee evaluates the student's progress toward completion of NSCI Ph.D. requirements, completion of activities in the four competency areas (Generating Knowledge, Sharing Knowledge, Community Engagement, and Resource Generation), and progress in research and the dissertation. The annual review is a procedure designed to provide feedback to students regarding their program of study, as well as to help faculty and committee members suggest/provide relevant opportunities to their advisees.

Ph.D. students in their first year of study should use the annual review to summarize their accomplishments from the beginning of their doctoral program through the end of the spring semester. After the first review is completed by the student, it is expected that future reviews will reflect progress toward the recommendations presented in the review from the previous year. All other Ph.D. students should complete the annual review for the time period of the academic year (i.e., summer, fall, and spring semesters) and provide a cumulative summary of activities related to the four competency areas.

To complete the annual review, Ph.D. students should complete the annual review form and submit it to their advisor. The advisor should review the form submitted by the student and prepare the evaluation portion of the Annual Review of NSCI Doctoral Student Form (Appendix C) for the committee.

Each year doctoral students in NSCI are required to give a seminar to their committee that is focused on their research progress. The student will meet with their advisory committee for an annual progress evaluation. Committee members will provide feedback to the student and sign the NSCI annual review form that will be kept in the student's departmental file. Students should receive written feedback on their progress by the end of summer and prior to fall semester. Doctoral students who graduate in May or summer are not required to complete the NSCI annual review.

Upon receiving the written feedback - and if desired, the Ph.D. student may request a meeting with his/her committee chair to further discuss the student's progress and the chair's suggestions/recommendations for the student.

4. M.S. Advising

4-1 NSCI M.S. Curriculum

M.S. in Nutritional Sciences

with an option in Nutrition or Dietetics (Internet-based Program)

4-2. Prerequisites for M.S. in NSCI Program

B.S. degree in nutritional sciences. If B.S. degree is in a subject area other than nutrition, a minimum of 30 credits of undergraduate nutrition-related coursework is needed. At least one course in biochemistry and physiology and one upper-level nutrition course is required prior to full admission to the program.

4-3. M.S. Course Requirements

The plan of study (POS) for a M.S. degree student is individually planned to develop academic excellence specific to the student's career goals. The selection and organization of courses are made in consultation with the advisor and the student's advisory committee. Students have the option of choosing between a thesis and non-thesis option as indicated below.

- 1) The M.S. degree with *thesis* option requires a minimum of 30 credits which includes 6 credits for thesis research. All credits must be completed in courses numbered 5000 and above or 4000 level courses from departments other than NSCI that have been approved for graduate credit.
- 2) The *non-thesis* M.S. degree option requires a minimum of 34 credits which includes 3 credits of NSCI 5843. All credits must be completed in courses numbered 5000 and above or 4000 level courses from departments other than NSCI that have been approved for graduate credit.

Core Requirements

- NSCI 5000 Master's Thesis (thesis option-6 credits) or
NSCI 5843 Non-thesis Creative Component
- NSCI 5123 Research Methods in Nutritional Sciences
- NSCI 5033 Macronutrients in Human Nutrition
- NSCI 5043 Micronutrients in Human Nutrition
- NSCI 5960 Seminar in Nutritional Sciences (1 hr credits; max 2)
- STAT 5013 Statistics for Experimenters I or REMS 5953 Statistical Methods in Education

Area of Specialization

- NSCI 5023 Advanced Nutrition in the Pathophysiology of Chronic Disease
- NSCI 5133 Nutrition for Exercise and Sport
- NSCI 5363 Maternal and Infant Nutrition
- NSCI 5373 Childhood Nutrition
- NSCI 5393 Nutrition and Aging
- NSCI 5543 Obesity Across the Lifespan
- NSCI 5553 Global Nutrition and Food Security
- NSCI 5563 Nutritional Assessment
- NSCI 5613 Advanced Nutrition Education and Counseling
- NSCI 5643 Advanced Medical Nutrition Therapy
- NSCI 5713 Advanced Community Nutrition

(Area of Specialization continued)

- NSCI 5743 Advanced Laboratory Techniques in Nutrition
- NSCI 5870 Problems in Nutritional Sciences
- NSCI 6033 Phytochemicals in Reduction of Chronic Disease
- NSCI 6870 Independent Study in Nutritional Sciences
- BIOC 4113 Molecular Biology
- BIOC 5824 Biochemical Laboratory Methods
- CPSY 5173 Gerontological Counseling
- CPSY 5473 Basic Counseling Skills
- CPSY 5503 Multicultural Counseling
- HHP 5593 Human Electrocardiographic Interpretation
- HHP 5613 Cardiac Rehabilitation
- HHP 5853 Stress Testing and Exercise Prescription I
- HHP 5873 Human Bioenergetics
- HLTH 5113 Psychological Aspects of Health
- HLTH 5323 General Epidemiology
- HLTH 5453 Cultural Issues in Health
- MGMT 5093 Management of Non-Profit Organizations
- REMS 5013 Research Design and Methodology
- REMS 6003 Analyses of Variance
- SCFD 5873 Culture, Society and Education
- SCFD 5913 Introduction to Qualitative Inquiry
- STAT 4043 Applied Regression Analysis
- STAT 5023 Statistics for Experimenters II
- STAT 5043 Sample Survey Design
- STAT 5303 Experimental Design
- VBSC 6120 Advanced Physiology of Selected Systems
- ZOOL 4215 Mammalian Physiology
- ZOOL 5283 Endocrinology

NOTE. NSCI 5303, 5333 and 5353 are levelling courses and may not be used on a plan of study.

NSCI 5412, 5422 and 5432 are supervised practice experiences associated with the dietetic internship and should not be included on the POS to meet degree requirements.

4-4. Great Plains IDEA Dietetics option

Students admitted to the Dietetics option are Registered Dietitians who complete the internet-based program through the Great Plains Interactive Distance Education Alliance (GP IDEA, <http://humansciences.okstate.edu/gpidea/>). Listed below are NSCI graduate courses included in the GP IDEA program. These courses (listed as Outreach Permission Required in the class schedule) are available to on-campus OSU graduate students only if there are openings after all GP IDEA students have enrolled. Enrollment in these courses does not count toward enrollment required for students who receive tuition waivers.

- NSCI 5013 Financial Management and Cost Controls in Dietetics
- NSCI 5033 Macronutrients in Human Nutrition*
- NSCI 5043 Micronutrients in Human Nutrition*
- NSCI 5053 Functional Foods for Chronic Disease Prevention
- NSCI 5103 Grant Writing for the Professional
- NSCI 5123 Research Methods in Nutritional Sciences*
- NSCI 5133 Advanced Nutrition for Exercise and Sport*
- NSCI 5203 Nutrition and Wellness
- NSCI 5213 Entrepreneurship in Food Service and Dietetics

- NSCI 5223 Advanced Nutrition Across the Life Span
- NSCI 5240 Contemporary Issues in Nutrition
- NSCI 5313 Dietary and Herbal Supplements
- NSCI 5323 Nutrition and Physical Activity in Aging
- NSCI 5363 Maternal and Infant Nutrition*
- NSCI 5373 Childhood Nutrition*
- NSCI 5423 Food Writing for Professionals
- NSCI 5453 Nutrition and Health Disparities
- NSCI 5543 Obesity Across the Life Span*
- NSCI 5553 Global Nutrition and Food Security*
- NSCI 5613 Advanced Nutrition Education and Counseling*
- NSCI 5643 Advanced Medical Nutrition Therapy*
- NSCI 5683 Fundamentals of Leadership in Dietetics
- NSCI 5713 Advanced Community Nutrition*
- NSCI 5753 Health Care Administration
- NSCI 5843 Non-Thesis Creative Component*
- NSCI 5963 Environmental Scanning and Analysis
- NSCI 6033 Phytochemicals in Reduction of Chronic Disease*
- NSCI 6223 Nutrition in Immunology
- NSCI 6243 Nutrition and Cancer
- NSCI 6643 Clinical Aspects of Nutrition Support

*Sections of this course are available to Stillwater-based students. Students in the Nutrition option should enroll in the on-campus section this course unless they receive permission to enroll in the Outreach Permission Required (GP IDEA) section from their advisor and the Graduate Coordinator.

4-5. M.S. Graduate Student Advisory Committee

The minimum number of M.S. degree advisory committee members is three. For students in the Nutrition option, the chair and at least one member of the committee must be members of the graduate faculty in the NSCI Department. For students in the GPIDEA Dietetics option, the chair is the Associate Dean, Academic Programs and Services and the committee members will consist of the NSCI Department Chair and Graduate Coordinator. All committee members must be members of the OSU Graduate Faculty with appointments that authorize them to serve on graduate committees.

Roles, Responsibilities and Qualifications of the Chair and Advisory Committee Members:

Chair: The primary responsibility of the chair of a graduate student's advisory committee is to monitor the progress of the student toward degree completion. The chair is commonly the research advisor, but this is not a requirement. The chair must have a strong familiarity with the academic requirements appropriate to the degree sought. The chair's duties include convening meetings of the advisory committee, as appropriate; ensuring compliance with University and Graduate College policies, procedures and requirements; overseeing the plan of study and thesis/dissertation submission processes; and ensuring that the research topic undertaken is appropriate to satisfy degree requirements with the results openly accessible. If the chair is not also the advisor, the chair should serve as a liaison with the advisor with regard to progress of research in fulfillment of degree requirements.

Expert Committee Member(s): The expert members provide expertise and counsel that serve the graduate student in attaining the research, scholarly, creative or professional preparation goal that is worthy of the degree sought. An expert member's responsibilities include guiding the research, scholarly or creative activities throughout the process, approving the plan of study, reviewing draft documents, attending regular

meetings of the advisory committee, and interacting regularly with advisory committee members to facilitate and monitor degree completion progress.

4-6. Procedure for Establishing Advisory Committee

The student will work with his/her advisor to identify appropriate committee members. Although the student has the ultimate responsibility for recommending his/her advisory committee membership, his/her advisor is a valued resource who can provide insight that will help the student make informed decisions. The student should meet with potential advisory committee members prior to recommending them to better understand their experience, availability, mentoring style and willingness to serve as an advisory committee member. The potential committee members will be contacted by the student or advisor and asked to serve on the student's committee.

A student's advisory committee membership is official when the Plan of Study (POS) is signed. The POS will be submitted online to the Graduate College. Committee members will receive electronic requests to sign the POS as soon as the student submits the form online at: <https://app.it.okstate.edu/pos/>.

4-7. Changes to the Advisory Committee

When members of a student's advisory committee change, the student should complete the Graduate College's [Committee Change Request](http://gradcollege.okstate.edu/forms) form (see <http://gradcollege.okstate.edu/forms> under the "Current Graduate Students" tab or submit the form electronically through the Graduate Student Round-Up at <https://app.it.okstate.edu/pos/>). The student is responsible for obtaining needed signatures on this form if the submits the paper form; emails are sent to the committee members from the Graduate College when the form is submitted online.

4-8. Plan of Study (POS)

The POS is the advisory committee and Graduate College's contract with the graduate student regarding the courses s/he will take for his/her degree. No grade below a "B" in NSCI core courses may be counted toward the degree. Credit for all courses on a graduate plan of study must have been awarded within 10 years of completion of all degree requirements. The POS is submitted online at: <https://app.it.okstate.edu/pos/>.

See <http://gradcollege.okstate.edu/planofstudy> and <https://gradcollege.okstate.edu/faq-pos> for additional information on the POS.

4-9. When to File POS

The POS should be filed no later than the end of the student's second semester of enrollment. The student must submit the POS before enrolling for the next semester.

A student may request one extension for filing a Plan of Study. For a copy of the form click this link http://gradcollege.okstate.edu/sites/default/files/Req_Extension_POS.pdf or see the Current Student - Plan of Study section of the Graduate College website <http://gradcollege.okstate.edu/planofstudy>.

4-10. When to Submit a Revised POS

If necessary, students should submit a revised (final) POS as they near the maximum number of hours allowed for the tuition waiver (33 hours) or prior to submitting the [Graduation Clearance](#) form. These forms should be submitted by the end of the second week of the semester (or the first week during summer) in which the student will complete the degree requirements. Please refer to the Graduate College webpage for deadlines (<http://gradcollege.okstate.edu/graduate-college-academic-calendar>).

Process for filing a revised POS: If the POS was submitted and approved in the online POS application, simply log in to: <https://app.it.okstate.edu/pos/> and revise the approved plan. The system will load the complete plan that has been approved and allow the student to make changes then resubmit the POS. If it has not been approved by the Graduate College, contact the Graduate College and ask them to reject the POS so it can be modified.

4-11. Thesis Option

Students completing an M.S. in Nutritional Sciences may choose the thesis option.

Thesis process:

- The student prepares the thesis proposal and the advisory committee must approve the proposal.
 - A copy of the proposal with the committee members' signatures is kept in the student's file in the department.
- Appropriate research approval (i.e. IRB or IACUC) approval is required for research involving human subjects or animals.
 - Advisor and student must submit the IRB or IACUC application and be current in the human subjects or animal use training (i.e., have a certificate of completion for the on-line training modules or OSU training sessions).
 - A copy of the IRB or IACUC approval notification memo is included in the thesis.
- Data collection begins only after IRB or IACUC approval and the proposal is approved by the committee (unless the data is part of the advisor's program of research and the advisor has already obtained approval).
- The advisor may determine if a "manuscript style" or "traditional thesis format" will be used.
 - If "manuscript style" is used, the advisor determines format
 - Generally, this format involves replacing Chapters 3 -5 of the thesis (Methods, Results and Discussion) with the manuscript(s).
 - The student should follow the "Thesis/Dissertation Manual" guidelines for general formatting issues. <http://gradcollege.okstate.edu/tdg>
- The student attends a Thesis/Dissertation Workshop (or Webinar) sponsored by the Graduate College. To access the webinar, log into the Graduate Student Round-up site through <http://planofstudy.okstate.edu/> and select "Thesis/Dissertation Webinar" from the menu.
- The student prepares the thesis using the template or the uniform formatting guidelines provided provided by the Graduate College: <http://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>
- Copies of the 'final draft' are provided to committee members with sufficient time to read and review before the thesis defense (at least one week before the defense).
- The student obtains a copy of the [Thesis/Dissertation Oral Defense Results](#) form (available at <http://gradcollege.okstate.edu/forms> under the "For Graduation" tab).
- A thesis defense meeting is held with the advisory committee.
 - At the conclusion of the meeting, the advisor submits the [Thesis/Dissertation Oral Defense Results](#) form to the Graduate College.

- The student completes revisions to the thesis and obtains committee approval/signatures.
- Student electronically submits the final copy to the Graduate College.
- The student submits a paper copy of the thesis signature (approval) page to the Graduate College. For copies of the templates for this page, go to <http://gradcollege.okstate.edu/content/thesis-and-dissertation-templates>.

4-12. Thesis Proposal

The student demonstrates his/her ability to apply foundational knowledge to a research problem by developing a thesis proposal. The student must present a proposal to the committee no earlier than the second semester of enrollment or with concurrent enrollment in NSCI 5123.

The proposal should be a minimum of 10 pages and include the following:

- statement of the research problem
- justification for the research problem
- a draft of the literature review
- research hypotheses/questions
- an outline of planned methods and procedures
- plan for statistical analysis

The student/advisor should provide a copy of the proposal to the advisory committee at least a week before the meeting. The proposal meeting should be a formal meeting in which the student gives a 20-30 minute oral presentation on their proposed research to the committee and seeks their input. Once the advisory committee approves the proposal, the committee members and the Graduate Coordinator sign a copy of the proposal for the student's file to verify the proposal was approved. The student submits a copy of the signed sheet and proposal to the NSCI departmental office and submits an electronic copy of the approved proposal to each member of the advisory committee.

4-13. Thesis Oral Defense:

Once the final draft of the thesis is approved by the advisor, the oral thesis defense should be scheduled with the advisory committee. The meeting must be held at a time when all advisory committee members can be present in person or via some means of distance communication.

The student should notify the staff in the NSCI Department office a minimum of two weeks prior to the scheduled date so that appropriate announcement of the meeting time and place can be advertised.

The oral presentation portion of the meeting is open to all interested parties who would like to attend. This open session will be followed by a closed meeting of the student with the advisory committee. During the closed meeting the committee will ask questions related to the thesis. At the conclusion of the meeting, the student is provided specific instruction as to the revisions that are required in order for the thesis to be "complete". The advisor should submit the [Thesis/Dissertation Oral Defense Results](#) form to the Graduate College.

4-14. Thesis Deadlines

Refer to the “Graduate College Academic Calendar” for deadlines pertaining to thesis submission: <http://gradcollege.okstate.edu/graduate-college-academic-calendar>

The following items must be submitted to the Graduate College by the deadline:

- [Graduation Clearance](#) form
- Application to Graduate (filed in Banner once the Graduation Clearance Form has been approved by the Graduate College)
- [Thesis/Dissertation Oral Defense Results](#) form (submitted by advisor)
- Final online submission of thesis
- Submission of a signed paper copy of the signature page to the Graduate College (see thesis/dissertation template for instructions)

4-15. Non-Thesis Option

Students completing an M.S. in Nutritional Sciences may also choose the non-thesis degree option. This option requires a minimum of 34 credits which includes 3 credits of NSCI 5843 Non-thesis Creative Component. This course should be taken in the final semester (generally, the Spring semester) of the student’s coursework.

Students who have chosen to complete the non-thesis option will be required to pass all components of the NSCI 5843 course. These requirements will include:

- a major paper consisting of a review of the literature on a specified topic
- an oral presentation/defense of the paper
- a comprehensive written exam over the core knowledge and the student’s area of emphasis

The written component will consist of an argumentative paper based on a nutrition controversy. Students will identify the topic for the paper and obtain approval for the topic from the faculty committee in charge of the class for a given semester. Students will also give a 35-40 minute oral presentation over the topic. If a student does not pass the paper or presentation before the end of the semester he/she will be required to re-take the course the following semester. More details regarding the paper and oral presentation will be provided in the NSCI 5843 course syllabus.

The comprehensive exam will be scheduled at the end of the first month of class. A study guide has been developed to assist students preparing for the exam (See Appendix A). Students who do not score $\geq 70\%$ on the exam will have the opportunity to retake the exam later in the semester (i.e. end of April) to complete the course. Students who do not pass the exam on the second attempt must wait 3 more months before re-taking the exam. If a student does not pass the exam on the third attempt they will be required to re-take the course the following semester.

Refer to the “Graduate College Academic Calendar” for deadlines pertaining to graduation for non-thesis students: <http://gradcollege.okstate.edu/graduate-college-academic-calendar>. The [Graduation Clearance](#) form and Application to Graduate must be submitted by the deadline.

4-16. Annual Review of M.S. Students

The purpose of the annual review for M.S. students is to assess the students' progress toward degree completion. The Graduate Coordinator will review all M.S. students annually to determine if the student meets the following criteria:

- meets or exceeds a 3.0 cumulative GPA
- earns no grade below a B in a core course with a NSCI prefix

For M.S. students in the thesis option, the Graduate Coordinator will also determine if the student:

- successfully defends a thesis proposal within 12 months of enrollment
- earns satisfactory research (SR) grades in NSCI research credits (i.e., NSCI 5000).

The Graduate Coordinator will notify the student and her/his Advisor if the student is not making adequate progress toward degree completion. The student and advisor will develop a plan of action to address deficiencies.

5. The Semester of Graduation

5-1. Graduate College Graduation Checklist

Refer to the “Graduate College Graduation Checklist” for important information pertaining to final semester and graduation requirements for both masters and doctoral students. (See <http://gradcollege.okstate.edu/masters-checklist> or <http://gradcollege.okstate.edu/doctoral-checklist>)

Also refer to the “Graduate College Academic Calendar” for pertinent deadline dates. <http://gradcollege.okstate.edu/graduate-college-academic-calendar>

5-2. Graduation Clearance Form

The [Graduation Clearance](#) form must be filed with the Graduate College by April 1 (for spring and summer graduates) or November 1 (for fall graduates). The graduate student should complete the Graduation Clearance form and give it to the advisor to review/edit/sign. The student then submits the form to the Graduate College.

5-3. Application to Graduate

The semester the student plans to graduate, the Application to Graduate (formerly called a diploma application) must be filed with the Registrar by April 1 (for spring and summer graduates) or November 1 (for fall graduates). To submit an application, the student must first submit the [Graduation Clearance](#) Form. After the Graduate College clears the student to apply for graduation, the student will log into Banner (<http://ssb.okstate.edu/>) and select the “View Application to Graduate” option located under the “Student Information” menu.

If the student does not graduate as planned, the student should contact the Office of the Registrar to file a Graduation Application Cancellation form (<http://registrar.okstate.edu/Forms>).

5-4. Copies of Thesis/Dissertation

The student should provide the advisor an electronic and/or printed copy of the final thesis/dissertation. For the advisory committee members who desire a copy, the student should provide either a printed or electronic copy of the final thesis/dissertation.

6. Other Important Information

6-1. Survival Skills for Graduate Students

Graduate school represents a new educational experience. Students are faced with a large amount of complex information and are expected to be more independent. Graduate school can be a stressful experience for students. To help students succeed, we recommend that you review the brief Graduate School Survival Guide written by Wanda Pratt at <https://grad.ucla.edu/asis/library/survivalguide.pdf>. Topics include getting the most out of the relationship with your research advisor or boss; getting the most out of what you read; making continual progress on your research; finding a thesis topic or formulating a research plan; characteristics to look for in a good advisor, mentor, boss, or committee member; and avoiding the research blues.

6-2. Student Professional Conduct

According to the Student Code of Conduct (<https://studentconduct.okstate.edu/code>) "Oklahoma State University (OSU) is committed to creating and maintaining a productive living and learning community that fosters the intellectual, personal, cultural and ethical development of its students. Self-discipline and valuing the rights of others are essential to the educational process and to good citizenship. Attending OSU is a privilege and students are expected to meet or exceed the University's standards of conduct both on and off campus.

Cowboy Community Standards

OSU students aspire to follow and promote:

- Integrity: OSU students are expected to exemplify honesty, honor, and respect for the truth in all of their actions.
- Community: OSU students build and enhance their community.
- Social Justice: OSU students recognize that respecting the dignity of every person is essential for creating and sustaining a flourishing university community. They understand and appreciate how their decisions and actions impact others and are just and equitable in their treatment of all members of the community. They act to discourage and challenge those whose actions may be harmful to and/or diminish the worth of others.
- Respect: OSU students must show positive regard for each other and for the community.
- Responsibility: OSU students are expected to accept responsibility for their learning, personal behavior and future success, and students should appropriately challenge others to do the same. Students should use judgment, be trustworthy, and take personal responsibility for their actions."

Students who violate the Student Code of Conduct may be dismissed from the NSCI graduate program.

6-3. Special Student Status

A student who has a bachelor's degree with a least a 3.0 cumulative GPA and wants to take graduate classes (without pursuing a graduate degree) can be admitted as a special student. The student completes an application through the Graduate College, pays an application fee, and then enrolls. Since work is not guided by a plan of study or approved by an advisor, no more than 9 credits of course work taken while a special student may be used on a plan of study to meet requirements for a degree or certificate program. Special students may not enroll in more than 9 credits of courses eligible for graduate credit without permission of the Dean of the Graduate College, or his/her designee. To ensure that special students do not inadvertently

exceed this limitation, an enrollment hold will be placed on each student in special status after the student has registered for 6 or more credits. This hold may be removed by the Special Student Advisor appointed by the Graduate College once the student has formally re-acknowledged this 9 credit limitation.

6-4. Student Organizations

The OSU Graduate and Professional Student Government Association (GPSGA) serves as the sole voice for all graduate and professional students in the OSU system. Their mission is to enhance the graduate student's experience through a unilateral representative body which provides student input on the policies that impact health, finances, and professional development of graduate students. GPSGA also provides aid for scholarship, fellowship, and leadership opportunities. All graduate students in the Oklahoma State University System campuses are members of the GPSGA and are eligible to serve as representatives. Two representatives and two alternates are selected from the NSCI department, typically from the active members of the NSCI Graduate Student Organization. In order for NSCI students to be eligible to receive the GPSGA travel support (below), two NSCI representatives must regularly attend GPSGA meetings and participate in GPSGA committee work.

The College of Human Sciences also has a graduate student organization, Graduate Students in Human Sciences (GSHS). This organization supports graduate students in their professional and personal development through seminars, workshops, and various leadership and social events. The organization encourages interdepartmental communication among graduate students and provides opportunities for graduate student input. All currently enrolled graduate students in Human Sciences are members of GSHS. Each year NSCI graduate students select one student who will serve as an officer in GSHS (and every four years students select two students).

The NSCI Graduate Student Organization is an organization for both masters and doctoral students within the department. The organization promotes interaction between graduate students and serves as a mechanism for professional development and service activities to OSU and the Stillwater community. Information about the organization is available by contacting the staff in the NSCI Department office.

6-5. Source of Travel Funds for Graduate Students

Graduate students can seek support for travel from the following sources:

- Funded projects (must have approval of project Principal Investigator)
- NSCI (use the Human Sciences Graduate Student Travel Request Application)
- Human Sciences Research & Graduate Studies office: Students should complete the Human Sciences Graduate Student Travel Request Application (<http://humansciences.okstate.edu/Forms/CoHS%20Grad%20student%20travel%20fund%20application%20form.pdf>)
- Graduate and Professional Student Government Association: please refer to the GPSGA website: <http://gpsga.okstate.edu/>. Look for [Travel Reimbursement Request Forms](#) under the "Forms" tab

6-6. College and University Awards for Graduate Students

Phoenix Awards: Each spring, the GPSGA selects an outstanding masters student, doctoral student, and faculty member to present with its highest honor: the Phoenix Award. The Phoenix Award recognizes exemplary achievement in leadership, scholarship, professional involvement and university and community service; especially as it relates to involvement with graduate students. The student award winners each receive a monetary award from the

GPSGA and the Graduate College, and all winners have their names engraved on the Phoenix Awards plaque located outside the Graduate College offices in Whitehurst Hall.

Graduate Research Excellence Awards: The purpose of this program is to recognize graduate students for their outstanding research accomplishments as reflected in their thesis or dissertation. Graduate students must be nominated by their advisor or entire advisory committee. Each Graduate Council Group may select a masters and doctoral award winner from their respective group. Applications are due in March to the Graduate College.

Honorary Graduate Commencement Marshals: Up to two doctoral and two master's graduates will be selected through a nomination process to serve as honorary graduate marshals for each commencement ceremony. Each recipient will receive a monetary award, be recognized at commencement and in the program, be provided special gown adornments, and lead the graduates in the processions/recessions and awarding of the diploma covers. The department may nominate one M.S. and one Ph.D. student who has demonstrated scholarly achievement, as evidence by academic performance and discipline-appropriate scholarly contributions. Applications are due in February.

College of Human Sciences Outstanding Masters and Doctoral Student Awards: Awards are given each spring at the College of Human Sciences Celebration of Excellence to recognize one outstanding masters student and one outstanding Ph.D. student in the college. Nominations are due in February of each year.

OSU Research Symposium: The annual OSU Research Symposium is sponsored by the Graduate College during OSU Research Week. Eligible participants include: undergraduate students enrolled through OSU-Stillwater and OSU-Tulsa; graduate students enrolled through OSU-Stillwater, OSU-Tulsa, and OSU-CHS; participants from recognized research programs (e.g., McNair programs) around the US; and undergraduate or graduate students from other Oklahoma schools.

6-7. Graduate Student Offices

Students with a NSCI graduate teaching assistantship have access to 308 Scott Hall. The office is shared by all teaching assistants in NSCI. For other students, 311 Scott Hall is available as a workspace for any enrolled graduate student in the College of Human Sciences. Access to 311 is available by swiping an OSU ID card.

7. Commonly Asked Questions

Does a student need to retake a core course in NSCI if they make a C in the course?

- Yes. Students may not count a "C" in a core NSCI course toward their degree.

What if a student wants to appeal a grade?

- The deadline for filing a grade appeal is no later than four (4) months after the date the grades are officially due in the Registrar's Office, or six (6) weeks after the student begins a new semester, whichever comes first. The appeal form requires a concise, but complete written statement outlining the particulars of the appeal. The grade may be appealed when a student believes an instructor's grading practices and procedures were not consistently and accurately followed when determining a final grade.

What if a student wants to appeal a thesis/dissertation grade or qualifying exam score?

- A student wishing to appeal a "UR" grade issued for a research course (5000 or 6000), or an academic issue not involving a grade should review the Graduate College policy on the appeals process available to graduate students at <http://gradcollege.okstate.edu/content/appeals-policy>.

What is a violation of academic integrity?

- Oklahoma State University is committed to maintaining the highest level of academic integrity and ethical behavior. It is necessary that all members of the University support and promulgate the values of honesty and responsibility appropriate for an academic community. Not only does such academic integrity and ethical behavior contribute to the status of the University, but it also represents an important component of the educational process. To assure a high level of integrity among students, behaviors that violate academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will not be condoned nor tolerated. Violations may subject the student to disciplinary action including the following: receiving a failing grade on an assignment, examination, or course; receiving an "F!" notation of a violation of academic integrity on the transcript; and suspension from the University. In the event an incident is not resolved at the time grade reports are due to the Registrar (e.g., an alleged violation is discovered during the final examination period), the instructor will assign an incomplete grade until the allegation is resolved. (See also academicintegrity.okstate.edu)

How many days should the advisor and/or committee members have to review a thesis/dissertation proposal or a thesis/dissertation final draft?

- A minimum of a week.

How many committee members must approve the thesis/dissertation for the student to graduate?

- All except one.

What if a student needs a time extension to finish a thesis or dissertation?

- The student must submit a Petition to the Associate Dean of the Graduate College describing why the extension is needed, when they will complete degree requirements, and the new plan to accomplish completion.
- Generally, requesting more than one extension does not work.

A student's committee member leaves OSU, but they are willing to remain on the committee.

How long can they remain as a regular member of the committee?

- There is no absolute rule – but generally one year is considered acceptable. Check with the Graduate Coordinator if this occurs.

Appendix A

Study Guide for Comprehensive and Qualifying Examinations

Macronutrients

Student should be able to:

I. Cell, Digestive System, and Energy Transformation

- explain the different function of cell organelles
- discuss the different transport mechanism of molecules into the cell
- discuss the role of receptor proteins
- explain classification and regulation of enzymes
- discuss the cell and tissue layers of the GI tract
- discuss the role of the different organs of the digestive system
- explain regulation of digestive system
- explain the role of lymphatic and vascular system in nutrient transport
- discuss factors affecting GI function
- discuss causes, symptoms, and cure for common GI disorders (e.g. GERD, IBD, ulcer, diverticular disease, celiac disease, etc)
- discuss the process of ATP production in the cell
- explain the components of electron transport chain
- explain the consequences of aberrations in the electron transport chain (e.g. uncouplers and electron transport chain inhibitors)

II. Carbohydrates

- describe the different classification, structure, and dietary goals for carbohydrates
- discuss carbohydrate digestion, the key enzymes involved in digestion, and the end products
- explain the process by which products of carbohydrate digestion are absorbed in the gastrointestinal tract
- discuss the transport of glucose throughout the body
- explain the regulation of blood glucose
- discuss the pathways involved in glucose metabolism during the “absorptive” phase and post-absorptive phase
- discuss the alterations in the pathways involved in glucose metabolism during early starvation, intermediate starvation and prolonged starvation.
- discuss the different metabolic pathways of glucose depending on the cell type
- explain the consequences of aberrations in carbohydrate metabolism such as type 2 diabetes and glycogen storage disease

III. Lipids

- describe the different classifications and structures of lipids
- discuss the dietary goals for lipids
- explain the functions of lipids
- discuss lipid digestion, the key enzymes involved in lipid digestion, and the end products
- explain the process by which products of lipid digestion are absorbed in the gastrointestinal tract
- discuss the transport of lipid throughout the body
- explain the role of cholesterol and the different lipoproteins in cardiovascular disease
- discuss the fate of the lipoproteins
- explain the metabolic pathways of lipids in the liver and adipose tissue
- discuss the oxidation and synthesis of lipids
- explain the regulation of lipid metabolism
- discuss the eicosanoids and their physiological roles in the body

IV. Proteins

- describe the different classification and structure of amino acids
- explain the functions of proteins
- dietary goals for proteins
- discuss protein digestion, the key enzymes involved in protein digestion, and the end products
- explain the process by which products of protein digestion are absorbed in the gastrointestinal tract
- discuss the metabolism of amino acids in the intestinal cells
- discuss the process of protein synthesis
- explain the function of key plasma proteins
- explain the role of key nitrogen containing non-protein compounds
- discuss the catabolism of amino acids
- discuss the role of the intestine, liver, skeletal muscle, kidneys, and brain in the metabolism of amino acids
- discuss the disposal of products of amino acids catabolism

Micronutrients in Human Nutrition

I. For **all nutrients** listed in the table below, students should be able to:

- Identify major food sources and supplement considerations
- Identify major functions of nutrient
- Identify primary at-risk groups /U.S. and international
- Identify how nutrient status is assessed
- Explain how EAR/RDA/AI/UL should be used to evaluate nutrient adequacy/excess
- Identify major storage site(s) and turnover rates (quantity of the nutrient commonly stored).
- Describe deficiency disease and any genetic/physiologic disorders associated with the nutrient.

II. For **major nutrients** only, student should be able to:

- Describe how these nutrients are absorbed, transported and excreted. Include any interactions (nutrient/drug) that affect bioavailability
- Discuss the genetic regulation of nutrient homeostasis, particularly for iron, calcium, and vitamin D
- Explain important interactions that affect micronutrient requirements or utilization, for example total energy and B vitamins; vitamin E and selenium; iron, zinc, and copper.

III. For **environmental toxicants** listed in the table, student should be able to:

- Identify major exposure vectors and supplement concerns
- Identify primary at-risk groups
- Identify potential damaging effects

Major Nutrients	Additional Nutrients	Environmental Toxicants
Iron	Selenium	Lead
Zinc	Copper	Mercury
Iodine	Chromium	Cadmium
Calcium	Magnesium	
Vitamin A	Manganese	
Vitamin D	Fluoride	
Vitamin E		
Vitamin K		
Thiamin		
Riboflavin		
Niacin		
Vitamin B ₆		
Folate		
Vitamin B ₁₂		
Vitamin C		

Research Methods in Nutritional Sciences

Student should be able to:

- I. Explain the basis of the scientific method.
 - Identify key factors in contemporary society that affect the scientist's ability to conduct scientific research
 - Explain how personal belief systems can affect scientific discovery
- II. Discuss ethical considerations in scientific research.
 - Identify the basic values inherent in ethical scientific research
 - Define research misconduct
 - Define Fabrication, falsification and plagiarism
 - Explain the fundamental ethical principles for using human subjects in research (Belmont report)
 - Explain the ethical principles for using animals in research
- III. Provide examples, compare, and contrast experimental and non-experimental research; quantitative and qualitative research.
 - Compare and contrast experimental and non-experimental research
 - Compare and contrast quantitative and qualitative research
 - Explain the types of numerical data in quantitative research
 - Explain the types of studies in qualitative research
 - Describe mixed methods research designs
- IV. Critically evaluate articles from the scientific literature.
 - Explain the differences between hypotheses, questions to be answered, the overall purpose and the objectives of research papers
 - Explain what should be included in the methods section and why it should be included
 - Explain dependent, independent and confounding variables
 - Define bias and describe ways that research can be biased
 - Discuss internal and external sources of validity
 - Explain why scientific literature should include a section on limitations
- V. Demonstrate an understanding of the basic principles of good experimental design; sampling; instrumentation; and basic statistical formulas.
 - Describe random and non-random sampling methods including advantages and disadvantages
 - Explain the concept of power and the ways that power can be altered.
 - Describe meta-analysis and discuss the factors that maximize its validity.
- VI. Display a clear understanding of the processes of IRB and IACUC review.
 - Items from CITI tests

Statistical Methods

- I. Students should have a fundamental knowledge of statistics as it relates to nutrition research. These topics include:
 - Characterization of Data (mean, median, standard deviation, standard error, confidence intervals, etc.)
 - Cronbach's alpha
 - Probability
 - Relative Risk, Odds Ratio, Hazard Ratio
 - Hypothesis testing including type I and II errors
 - Comparing Two Population Means (t-tests)
 - Analysis of Variance

- Regression
- Correlation

Students do not need to know how to calculate the statistical tests, but do need to be able to interpret the results of the tests. For example, if students are given a correlation coefficient of -0.23 and a p value of 0.01 for the relationship between body weight and bone density, they should be able to indicate if the two variables were significantly related and explain what the negative value means.

- II. Students should be able to interpret the results of statistical tests presented in figures and tables from a research article.

Appendix B

Schematic Model of Competencies for the Doctoral Program in Nutritional Sciences

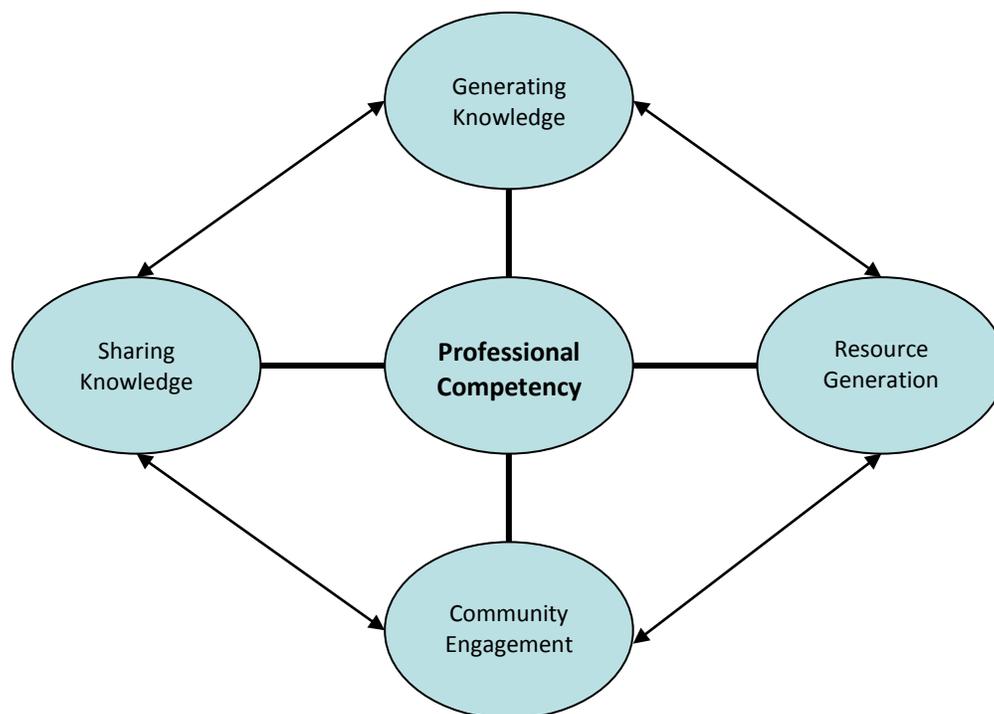


Figure. Schematic Model of Competencies for the Doctoral Program in Nutritional Sciences

The objectives of the Ph.D. in Nutritional Sciences are to develop nutrition scientists who are competent in the areas of *Knowledge Generation*, *Sharing Knowledge*, *Community Engagement* and *Resource Generation*.

To develop competence, Ph.D. students will engage in all of the activities listed under *Generating Knowledge*. For *Sharing Knowledge*, each doctoral student is expected to complete at least one of the activities listed during their Ph.D. program and present at least one seminar, research presentation, or poster to their committee or at a professional meeting each year. Participation in *Community Engagement* and *Resource Generation* activities will be determined by the student's committee based on the student's career goals. Recognizing the importance of accountability, the student (in consultation with his/her committee) will document the necessary experiences to be completed during the doctoral program in order to achieve competence. The annual doctoral review will serve as a mechanism to gauge the student's progress. By the end of their program, the Ph.D. student should develop a portfolio that documents his/her accomplishments relative to these experiences.

1. Generating Knowledge (i.e., research and other forms of creative scholarship)
 - a. Search the research literature and summarize findings for formulation of research questions/ hypotheses.
 - b. Critique manuscripts using analytical skills for effective evaluation
 - c. Develop research objectives and plan methods to meet objectives.
 - d. Develop sound proposals using appropriate research methodology, research instrumentation and analysis.
 - e. Engage in collaborative learning to plan and conduct research.
 - f. Plan and conduct research, including problem solving, data handling and statistical analysis.
 - g. Interpret data appropriately and determine implications
 - h. Disseminate findings to appropriate audiences.
2. Sharing Knowledge (i.e., classroom instruction, training, etc.)
 - a. Apply learning theory/educational pedagogy to plan and organize a course/workshop.
 - b. Understand the fundamentals of critical thinking and creative problem solving, and learn practical strategies for engaging student thinking.
 - c. Present educational and/or training materials in an effective manner to facilitate learning.
 - d. Assess student learning and educational experiences.
 - e. Write sound proposals, abstracts and manuscripts related to instruction/training.
 - f. Engage in collaborative teaming to facilitate learning.
 - g. Mentor students in a one-on-one situation.
3. Resource Generation (i.e., grants, contracts, development, etc.)
 - a. Identify appropriate sources of funding.
 - b. Critique proposals using analytical skills for effective evaluation.
 - c. Develop sound proposals targeted to meet the interests of funding sources and identify expected impact.
 - d. Develop budget appropriate to the scope of work of the proposal.
 - e. Engage in collaborative teaming to develop fundable proposals.
4. Community Engagement (i.e., outreach, Cooperative Extension, service to professional organizations, impact public policy, etc.)
 - a. Develop program objectives, plan for outreach program implementation and evaluation.
 - b. Present educational sessions to a variety of audiences
 - c. Work effectively as a member of a team to plan and/or deliver outreach programs.
 - d. Assess audience learning, including impact on audience behavior.
 - e. Write sound proposals, abstracts and manuscripts related to outreach programs.
 - f. Solve community engagement problems creatively.
 - g. Communicate priorities and technical information to policy makers.
 - h. Advocate for relevant legislation or policy for positive change in society.
 - i. Influence the strategic direction of a professional organization.

Appendix C

Annual Review of NSCI Doctoral Student Form

Instructions: Student completes this form by **May 1** and emails a copy to his/her advisor.

Student: _____ Date: _____

Degree Program: _____ Ph.D. _____ Advisor: _____

Year of Matriculation: _____ Expected Date of Completion: _____

How are you supported? Self ___ Dept. TA _____ Res. Grant ___ Other _____

A. Admission Requirements (complete if this is your first annual review):

1. Were you admitted conditionally or on probation? Yes ___ No ___
2. If yes, what were the conditions (i.e., must receive a grade of "B" or better in first 3 core courses, etc.)? Have they been satisfied?

B. Progress in Completing Departmental Requirements (course work, qualifying exams, proposal, comprehensive exams, etc.) **during the past year:**

1. Core Courses (includes challenge by advanced standing test and grades):

Course	Course			<u>Credit</u>
<u>Prefix</u>	<u>Number</u>	<u>Title</u>		<u>Hrs</u> <u>Grade</u>

2. Additional research support courses or courses within your area of specialization.

Course	Course			<u>Credit</u>
<u>Prefix</u>	<u>Number</u>	<u>Title</u>		<u>Hrs</u> <u>Grade</u>

- a. Is remediation required with any of these courses? Yes _____ No _____
If yes, indicate the courses and provide an explanation as to why remediation is required
- b. Are there any incompletes ("I") in any these courses? Yes _____ No _____
If yes, what is progress towards removing the incomplete?

3. Examinations:

- a. Have you satisfactorily completed your qualifying exams? Yes _____ No _____
- b. Have you satisfactorily completed your comprehensive exams? Yes _____ No _____
If no, what is the anticipated date of completion?

4. Seminars, Research Presentations or Posters:

- a. How many seminars, research presentations or posters have you presented this year?
- b. Are there weakness in this area and if so, what are they?

5. Research Proposal:

Have you presented your research proposal and received approval from your advisory committee? Yes ___ No ___ If no, provide an anticipated date this will occur.

C. Miscellaneous:

- 1. Awards or honors received this academic year:
- 2. Involvement in departmental events:
- 3. Other comments:

D. Progress in Research Competencies:

If this is your first annual evaluation, identify your research progress by indicating what activities you accomplished in the past year. If this is not your first annual evaluation, add new activities to the list you compiled in prior years. By the end of your program you are expected to accomplish **all** these objectives.

Generating Knowledge (i.e., research and other forms of creative scholarship)	For each objective, list the related activities you accomplished during your doctoral program
a. Search the research literature and summarize findings for formulation of research questions/ hypotheses.	
b. Critique manuscripts using analytical skills for effective evaluation	
c. Develop research objectives and plan methods to meet objectives.	
d. Develop sound proposals using appropriate research methodology, research instrumentation and analysis.	
e. Engage in collaborative learning to plan and conduct research.	
f. Plan and conduct research, including problem solving, data handling and statistical analysis.	
g. Interpret data appropriately and determine implications	
h. Disseminate findings to appropriate audiences.	

E. Progress in Sharing Knowledge Competencies

If this is your first annual evaluation, identify your progress in teaching by indicating what activities you accomplished in the past year. If this is not your first annual evaluation, add new activities to the list you compiled in prior years. By the end of your Ph.D. program, you are expected to accomplish **at least one** objective listed under “Sharing Knowledge.”

Sharing Knowledge (i.e., classroom instruction, training, etc.)	For each objective, list the related activities you accomplished during your doctoral program
a. Apply learning theory/educational pedagogy to plan and organize a course/workshop.	
b. Understand the fundamentals of critical thinking and creative problem solving, and learn practical strategies for engaging student thinking.	
c. Present educational and/or training materials in an effective manner to facilitate learning.	
d. Assess student learning and educational experiences.	
e. Write sound proposals, abstracts and manuscripts related to instruction/training.	
f. Engage in collaborative teaming to facilitate learning.	
g. Mentor students in a one-on-one situation.	

F. Progress in Resource Generation and/or Community Engagement Competencies

Depending on your career goals, your committee may require you to accomplish some of the objectives listed under “Resource Generation” and “Community Engagement.” If this is your first annual evaluation, identify your progress in these areas by indicating what activities you accomplished in the past year. If this is not your first annual evaluation, add new activities to the list you compiled in prior years. All students are encouraged to seek out opportunities to participate in activities related to these areas.

Resource Generation (i.e., grants, contracts, development, etc.)	For each objective, list the related activities you accomplished during your doctoral program
a. Identify appropriate sources of funding.	
b. Critique proposals using analytical skills for effective evaluation.	
c. Develop sound proposals targeted to meet the interests of funding sources and identify expected impact.	
d. Develop budget appropriate to the scope of work of the proposal.	
e. Engage in collaborative teaming to develop fundable proposals.	
Community Engagement (i.e., outreach, Cooperative Extension, service to professional organizations, impact public policy, etc.)	For each objective, list the related activities you accomplished during your doctoral program
a. Develop program objectives, plan for outreach program implementation and evaluation.	
b. Present educational sessions to a variety of audiences	
c. Work effectively as a member of a team to plan and/or deliver outreach programs.	
d. Assess audience learning, including impact on audience behavior.	
e. Write sound proposals, abstracts and manuscripts related to outreach programs.	
f. Solve community engagement problems creatively.	
g. Communicate priorities and technical information to policy makers.	
h. Advocate for relevant legislations or policy for positive change in society.	
i. Influence the strategic direction of a professional organization.	

Overall Evaluation (completed by your advisor and your committee):

Evaluate the student's progress, scholarly capability and professional development. Indicate what areas need improvement and which strong points need to be reinforced.

SUMMARY OF PROGRESS RATE: SATISFACTORY: _____ UNSATISFACTORY: _____

ADVISORY COMMITTEE SIGNATURES

Student's Signature

(Signature confirms discussion of performance evaluation, but does not necessarily indicate agreement)

Advisor

