Master of Science Program Requirements

Introduction

The Nutritional Sciences Department at the University of Arizona (UA) offers both Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Nutritional Science. Regardless of your interests, experience, or background, the program requirements for your degree will be similar to other students in the program. In the next several pages, we have outlined these requirements.

Successful students will visit this document regularly to assure they are meeting required "markers" along the way. Questions you may have can be directed to Nancy Driscoll, Coordinator of the Nutritional Sciences Graduate Program (NSGP), or Dr. Kirsten Limesand, Chair of the NSGP and/or once established, your Major Advisor and Committee Members.

Master of Science Program Considerations

You may have been admitted with one or more course deficiencies; these deficiencies should be completed as soon as possible, preferably during the first semester in the program. The Coordinator and Chairs of the NSGP, with the support of the Graduate Executive Committee will assist you with selection of courses for the first semester that you are enrolled in the program. Once you have selected an Advisor, the Advisor will support you in selecting coursework through the remainder of your degree program.

It is the goal of the NSGP that students entering with no or only one course deficiency will complete their M.S. degree within two years. To accomplish this, M.S. students must specify a laboratory for their thesis research by the second semester; the earlier in the semester the better.

With the guidance of your Advisor you must select an Advisory Committee to guide your master’s research. As per the Graduate College website "Master's committees must consist of three members; at least two must be tenure-track UA faculty members. If the third member is not a tenure-track UA faculty member, he or she must be approved by the Graduate College as a special member."

An approved Plan of Study must be completed by the end of the first year (31 July). Failure to meet the deadlines of laboratory selection and Plan of Study approval will be deemed lack of progress toward a degree and can result in loss of funding or a written reproach.

All students should refer to the Graduate College website and/or Department of Nutritional Sciences website for forms, rules and policies. Graduate College policies are the final authority in the event of any conflicts. It is each student’s individual responsibility to familiarize themselves with the Graduate College policies.
Coursework and Mentoring

Required Courses

1. NSC 501, Statistics for Applied Nutritional Sciences I (1 unit)
2. NSC 502, Statistics for Applied Nutritional Sciences II (1 unit)
3. NSC 503, Statistics for Applied Nutritional Sciences III (1 unit)
4. NSC 561, Communicating Nutrition and Health (1 unit) – must be taken twice
5. NSC 595, Emerging Topics in Nutritional Sciences (1 unit)
6. NSC 608, Metabolism and Energetics (3 units)
7. NSC 610, Nutrition and Disease (3 units)
8. NSC 624, Micronutrients (3 units)
9. NSC 675, Advanced Nutrigenomics (3 units)
10. NSC 699 Laboratory Rotation (3 units)
11. NSC 910 Thesis (6 units)

Total Required Units = 21 + 6 Thesis Units

12. Electives, remaining units needed to fulfill Graduate College requirements of 30 total units. (maximum of 3 units of house-numbered courses in your elective units)*

* University-wide house-numbered courses comprise two categories of courses using alternative teaching formats: (1) courses offered in small group settings, and (2) courses taught on an individual basis. An example of a university wide house-numbered course would be 695 or 699.

A typical course schedule for the first semester of a first year M.S. student starting on an even year may be similar to the following:

1. NSC 608 3 units---this course is offered every year and should be included for most students.
2. NSC 610 3 units---this course is offered every other year and should be included for most student.
3. NSC 699 3 units---rotations must be completed by students to identify a research laboratory for their M.S. project.
4. NSC 501 1 unit 1st 7 week
5. NSC 502 1 unit 2nd 7 week

A typical course schedule for the first semester of a first year M.S. student starting on an odd year may be similar to the following:

1. NSC 624 3 units---this course is offered every year and should be included for most students.
2. NSC 675 3 units---this course is offered every other year and should be included for most student.
3. NSC 699 3 units------rotations must be completed by students to identify a research laboratory for their M.S. project.
4. NSC 501 1 unit 1st 7 week
5. NSC 502 1 unit 2nd 7 week

Students funded on an assistantship through the College of Agriculture and Life Sciences are required to enroll in 10 course units per semester.

It is highly recommended that all students take a course in ethics before graduating. Two possible ethics courses are listed below:

1. MCB 695E, Science, Society, and Ethics, Spring
2. SLHS 649, Survival Skills for Scientists, Spring

If you have decided on an Advisor then they will advise you regarding the selection of courses for the remaining semesters, bearing in mind that you must meet the coursework requirements of the NSGP and the Graduate College. If you have not selected an advisor by the middle of October of your 1st semester when priority registration for graduate students opens, then the Coordinator and Chair of the NSGP can advise you on your second semester courses. It is the student’s responsibility to know exactly which courses and the total number of units they are registered for each semester.

It is very important that students select an Advisor as soon as possible in their program and then together with their Advisor, select a Graduate Advisory Committee. The student's research program cannot be planned before selecting an Advisor, and not having a designated research project will delay your graduation.

A recommended procedure is for the student, with advice from his/her Advisor, to identify an appropriate project and prepare a 1-2-page summary/outline of the research methods and to schedule an advisory committee meeting to discuss the proposed research and obtain approval.

Central to M.S. research is the premise that students will master new skills in research methods and begin to master scientific writing. M.S. advisory committees must consist of three members; at least two must be tenure-track UA faculty members. If the third member is not a tenure-track UA faculty member, he or she must be approved by the Graduate College as a special member.

**Laboratory Rotations**

Laboratory rotations are a valuable experience for students. They provide an opportunity for the student to learn new techniques, to be exposed to different approaches to nutrition research and to meet faculty and students in the program. Hence, the rotation experience should be taken seriously, and students should immerse themselves in each rotation and maximize the amount of time they spend in each laboratory and with the people in it, including evenings and weekends as appropriate.
All incoming M.S. students must select research laboratories to rotate through during their first semester. M.S. students must rotate through two research laboratories. Rotations are generally for a period of 7-8 weeks. Students can select a laboratory from any of the tenure-track departmental or joint appointed faculty in the NSGP.

If necessary, the Chairs and Coordinator of the NSGP can assist students in selection of their first rotation, but students should familiarize themselves with all available faculty so they can select a laboratory for their rotations. The laboratory for the first rotation will be chosen before the start of the semester or no later than the second week of the semester; the laboratory for the second rotation should be chosen by the second Friday in September. It is the student’s responsibility to contact the laboratories in which they wish to rotate. Keep in mind that some laboratories may be fully committed and unable to accommodate a rotation student, so start your selection process early. Professors are very busy so contact may need to be done by email or by directly going to the laboratory to set up a meeting with the professor. The Chair and Coordinator of the NSGP will ask for an update on progress toward selecting your rotations by July 1st of the year you begin the program.

Course credits are awarded for laboratory rotations. Students completing a rotation will enroll in 3 units of N SC 699 under Dr. Kirsten Limesand, Chair of the NSGP for the semester that they are completing their research laboratory rotations.

Students are expected to spend a minimum of 9 hours/week (1 unit=3 hours) in the laboratory in which they are doing their rotation. There are no maximum allowable hours for lab rotation but rather it is at the discretion of faculty and the individual student in order to assure an ample and optimal learning experience.

**Mentor Student Match Meeting**

You will meet with the Chair and Coordinator of the NSGP and your mentor (research advisor) once a selection has been made. Typically, this meeting will be held in the beginning of the second semester. This meeting is an opportunity to discuss aspects essential to moving forward in the graduate program and will include salary, supplemental income from winter/summer teaching assistantship responsibilities, selection of an advisory committee, and important aspects related to your research such as time allotment, seminar presentations, attendance at conferences and the importance of communication. We will outline expectations related to the Semester Progress Reports and Annual Evaluations along with graduation requirements. This meeting is a time to ask questions and to make sure you and your mentor understand important aspects of moving toward degree completion.

**Graduate Student Progress Report**

At the end of each semester graduate students will document their progress toward degree completion. All students are required to submit this biannual progress report by starting/updating a Graduate Student Progress Report form. Advisor’s review student’s reports to help make an assessment of student progress toward degree completion. The Progress Report must be submitted to the student’s advisor 10 days after the end of each semester. An electronic copy must also be submitted to the NSGP Coordinator and a copy should be brought to the end of the
semester meeting to discuss with the Coordinator and Chair. A copy of the policy along with the Graduate Student Progress Report form is posted on the [Graduate Program Forms page](#).

**Graduate Student Annual Review**

The purpose of the Graduate Student Annual Review is to promote optimal student performance. By assessing in a systematic way, evaluations provide a basis for accountability. Evaluations are expected to give an accurate analysis of successes and to identify areas for improvement. Annual evaluations will help to identify an individual student’s performance in training, to provide constructive feedback on performance and to support the highest standard of performance. Every graduate student will be evaluated on a yearly basis.

The evaluation will be completed by the student’s major Advisor and by the student. If a major advisor has not been identified the Chair of the NSGP will evaluate the student. The annual evaluation should be completed by the end of the spring semester of every academic year or by May 20th. The Graduate Student Progress Report should be provided to the Major Advisor 2 weeks before the review meeting. A copy of the policy along with the Annual Review Form is posted on the [Graduate Program Forms page](#). In addition to completing the written review form the major advisor should schedule a meeting with the student to review the written evaluation. At the end of the meeting this written evaluation must be signed by the student and the major Advisor and submitted to the NSGP Coordinator.

The Graduate Student Progress Report and the Graduate Student Annual Review Form will be maintained in the student’s records in the office of the NSGP Coordinator. These annual reviews may be shared with the student’s advisory committee, the NSGP Chairs, the NSGP Coordinator, the Department Head and the Graduate College Dean’s office.

**Plan of Study**

The Plan of Study is the document used by the UA Graduate College to track student course work and progress to a degree. All M.S. students must have a Plan of Study on record by the end of their first year (30 June). The Plan of Study identifies:

1. Courses the student intends to transfer from other institutions
2. Courses already completed at UA which the student intends to apply toward the graduate degree
3. Additional course work to be completed to fulfill degree requirements

The Plan of Study must have the approval of the student's Advisor and the Chair of NSGP before it is submitted to the Graduate College. The Plan of Study form can be found under forms on the “GradPath” through the [UAccess Student](#).

Each student should fill out the Plan of Study form and email the Coordinator of the NSGP to let her know she can review the document. The NSGP Coordinator will review the form to make
sure all Nutritional Sciences Department and Graduate College requirements are being met and will let the student know that they can submit the form for approval.

If you are unsure as to how to complete the Plan of Study, please make an appointment with the Coordinator of the NSGP for guidance.

**Semester Meetings**

Graduate Students will meet with the Coordinator and Chair of the NSGP at the end of each semester to review their progress toward degree, discuss any concerns, ask questions and have the opportunity to provide feedback on their experience in the program. First semester graduate students will also meet approximately 8 weeks after the start of their first semester. The Coordinator of the NSGP will schedule these meetings and email students with notification of date/time and place of the meeting. The Graduate Student Progress Report should be brought to the end of the semester meeting.

**Completion of Master's Requirements**

The NSGP requires all M.S. students write a master’s thesis or extended manuscript, present a seminar of their research findings and complete an oral final examination administered by the student’s M.S. Advisory Committee of faculty members prior to graduation.

A M.S. student who fails a final oral examination may, upon the recommendation of the Advisor and Advisory Committee, be granted a second examination. Second exams should be completed within three months of the original exam date. The results of the second oral examination are final.

Research involving human subjects or vertebrate animals, requires permission from the relevant UA committee. Consult your Advisor and the Office for Responsible Conduct of Research (RCR) for details. The RCR Office telephone number is 520-626-5515. You must have Human Subjects approval in your own name; your project is not covered under your Advisor's approval. Research activities involving the use of human subjects require the review and approval of the University Human Subjects Committee.

Any research involving vertebrate animals must be approved by the Institutional Animal Care and Use Committee (IACUC). The student must be listed on an approved IACUC protocol before they begin their animal research.

A student completing a master's thesis (with enrollment in course number 910) is required to archive the thesis upon final approval of the thesis committee. The thesis will be added to the University of Arizona Campus Repository and to the national archive of dissertations and theses maintained by ProQuest/UMI. There is no charge to the student for archiving the thesis. The thesis must have been successfully defended and approved by the thesis committee with all final edits completed in time for the student to submit it online for archiving by the graduation deadline for the student's graduation term.
When a student has completed all degree requirements, the major professor should email the coordinator of the Nutritional Sciences Graduate Program so she can submit the completion documentation on UAccess.

All grades for incomplete courses and current semester coursework must be received before the degree is considered complete. A student must have a cumulative GPA in all graduate coursework of at least 3.000 in order to graduate with a Master of Science degree in Nutritional Sciences. Approval of the Completion of Degree Requirements form by the Dean of the Graduate College will certify completion of degree requirements.