

# NUTRITIONAL SCIENCES (M.S.)

<https://colsa.unh.edu/agriculture-nutrition-food-systems/program/ms/nutritional-sciences>

## Description

The program is for students who anticipate a professional career involving research or discovery, with a strong background in the basic biology and chemistry of nutrition. This degree may be most appropriate for students who expect to pursue further advanced studies, e.g., additional graduate studies or professional school, after graduation. Graduates of the Master of Science (M.S.) in Nutritional Sciences will be valued in the marketplace as they will have a demonstrated capacity to engage in critical and systems thinking, convey and apply nutrition concepts in clinical, research and community settings, work as individuals and in teams, and identify strategies for lifelong learning.

In this thesis-based program students gain a comprehensive understanding of nutritional science through their coursework and engagement in research. Emphasis is placed on active participation in original hypothesis-driven research of publishable quality.

## Requirements

### Degree Requirements

The program of study must include a minimum of **30 graduate credits** including 6 credit Master's Thesis based on a research project. Courses will be taken to fulfill expected competency requirements in experimental design and analysis and in scientific writing and communication. In consultation with the student's graduate committee and the area of research specialization, other courses will be taken as appropriate.

#### Core Course Requirements

Code	Title	Credits
NUTR 899	Master's Thesis	6
NUTR 960 & NUTR 961	Research Methods in Nutritional Science I and Research Methods in Nutritional Science II <sup>1</sup>	8
ANFS 901	Introduction to Agriculture, Nutrition, and Food Systems Graduate Studies <sup>2</sup>	1
ANFS 997	Agriculture, Nutrition, and Food Systems Seminar <sup>3</sup>	2
<b>Electives <sup>4</sup></b>		
<i>Select a minimum of 8 credits from the following:</i>		
NUTR 809	Nutritional Epidemiology	4
NUTR 810	Advanced Diabetes Care	2
NUTR 815	Advanced Sports Nutrition	4
NUTR 820	Community Nutrition	4
NUTR 830	From Seed to Sea: Examining Sustainable Food Systems	4
NUTR 850	Nutritional Biochemistry	4
NUTR 851	Nutritional Biochemistry of Micronutrients	4
NUTR 855	Concepts and Controversies in Weight Management	4
NUTR 860	Behavioral Nutrition and Counseling	4
NUTR 927	Nutrition and Gut Microbes in Human Health	4

<sup>1</sup> These courses provide students foundational and practical application related to science communication and experimental design and analysis, most students will complete the courses during their first year of studies.

<sup>2</sup> To be taken at the earliest opportunity, typically in the initial fall semester of the graduate program.

<sup>3</sup> All students are required to register and participate in this course (1 credit CR/Fail) for a minimum of 2 credits.

<sup>4</sup> In consultation with their guidance committee, students are required to complete a minimum of 8 additional NUTR graduate credits.

#### Competency Requirements

A thesis committee will be appointed early in the program and will consist of at least three members of the graduate faculty; one of these will be the primary mentor. Students will design a program of study in close consultation with their thesis committee, including their academic courses and scientific research project. The student's committee may require certain undergraduate courses as part of the graduate program if additional competencies would be beneficial to the student. No more than 4 credits of NUTR 895 Investigations can apply toward the total credit count.

#### Additional Requirements

All students in the Nutritional Sciences Graduate Programs are expected to:

- Present their research in ANFS 997 Agriculture, Nutrition, and Food Systems Seminar at least twice (exclusive of the thesis defense). Students are also encouraged to present at professional conferences and acquire teaching and/or mentoring experience.
- Serve as a teaching assistant for at least one semester or have at least one significant teaching experience in nutrition.
- Defend their research proposal, both in written and oral form. Approval form must be on file with department.
- Write and defend an original thesis of publishable quality.

#### Annual Evaluation

The annual evaluation of graduate students ensures that students receive the mentorship they deserve and are making progress toward completion of their degrees. The annual evaluation of graduate students consists of a collaborative effort between faculty adviser and student to:

- Complete a self-assessment;
- Present a professional quality CV suitable for awards, job applications, and internships;
- Produce a narrative of service or other activities not captured on a CV (if applicable);
- Develop annual goals.

Additional information can be found in the program graduate handbook, which includes expectations, guidelines, and detailed policies.

## Student Learning Outcomes

#### Nutrition knowledge-related

- Build knowledge and understanding in key content areas of nutritional sciences and public health nutrition issues

#### Research design and analysis

- Identify the strengths and weaknesses of study designs utilized in nutrition-related research

- Conduct nutrition-related data analyses
- Interpret the results and scientific literature to inform dietary recommendations, public policy, or chronic disease intervention

**Scientific method**

- Demonstrate the ability to design and defend an original, hypothesis-driven project to advance the field of nutritional sciences.

**Critical thinking**

- Integrate scientific evidence and critically evaluate research findings in specific fields related to nutritional sciences.

**Communication skills**

- Disseminate evidence-based information on nutritional sciences and public health
- Deliver nutrition research findings to multiple scientific audiences (i.e. research conference, academic journal).
- Incorporate critical feedback in their research and academic work

**Professionalism**

- Conduct research in an ethical manner
- Demonstrate collaboration and leadership skills
- Master concepts of equity, diversity, and inclusion in different settings (e.g., healthcare, education, community health)