

MS in Nutrition and Exercise Physiology with Emphasis in Nutrition and Metabolism

About the Program

The MS in Nutrition & Exercise Physiology with an emphasis in Nutrition and Metabolism offers both a thesis option and a nonthesis option.

The **thesis option** provides training in the distinct core nutrition knowledge described by the Graduate Nutrition Education Committee of the American Society for Nutrition: general research skills; structure and biochemical and metabolic functions of nutrients and other dietary constituents; food, diets, and supplements; nutritional status assessment; nutrition and disease; nutrition interventions and policies; and, analytical skills. Graduate students also receive training in laboratory research, seminar preparation and delivery, scientific writing, problem solving and research grant writing. The graduate program is administered by the Division of Food, Nutrition, and Exercise Sciences in association with the College of Agriculture, Food and Natural Resources, and the School of Medicine.

The **non-thesis** option is designed for students aiming to strengthen their preparation for health profession careers (i.e., allopathic and osteopathic medicine, dentistry, and physician assistant). This emphasis integrates advanced study of nutrition and metabolic health to equip students with the scientific foundation and practical skills needed to address chronic diseases and promote health. The curriculum, with its focus on clinically-relevant problems, emphasizes critical thinking, evidence-based practice, and interdisciplinary knowledge in areas such as clinical nutrition, exercise physiology, and metabolic disease prevention, preparing graduates to excel in health professions and contribute to innovative, preventative healthcare solutions.

Degree Requirements

The program consists of a total of 30 hours of credit beyond the bachelor's degree, of which 15 credits must be at the 8000 or 9000 level; no more than 40 percent of the 30-hour credit requirement can be satisfied by a combination of special investigations, Research, Readings and/or Problems courses.

Master's students will choose between two options for final completion: **thesis or non-thesis**. Students should indicate their preference on their application to the program.

The minimum department course requirements for the master of science degree are:

Core courses for both thesis and non-thesis options

BIOCHM 7270 & BIOCHM 7272	Biochemistry and Biochemistry	6
NEP 7340	Human Nutrition II Lecture	3
NEP 8087	Masters Seminar in Nutritional Sciences and Exercise Physiology	1
NEP 8340	Nutrition in Human Health	3
NEP 8310	Nutritional Biochemistry of Lipids	3
NEP 8090	Masters Research in Nutritional Sciences and Exercise Physiology	4

or NEP 8085	Problems in Nutritional Sciences and Exercise Physiology	
Thesis option		
BIOCHM 7272	Biochemistry	3
AN_SCI 9442	Vitamins and Minerals	4
STAT 7070	Statistical Methods for Research	3
STAT 7540	Experimental Design (or other 7000 level class)	3
Non-thesis option		
NEP 8220	Cardiovascular Disease and Exercise	3
NEP 7400	Pathophysiology of Diseases Affecting Metabolic Health	3
NEP 7370	Medical Nutrition Therapy I	3
STAT 9820	Stochastic Processes (or other 7000 level class)	3
MPP 7422	Medical Physiology	4

Thesis/Non-Thesis Requirements

The Nutrition and Metabolism Emphasis within the MS Nutrition and Exercise Physiology degree program offers a thesis or non-thesis option.

- Thesis** Option: Students earning this degree must provide a written thesis, based upon original research, that is student's own work and that demonstrates a capacity for research and independent thought. In addition, the graduate student must present their thesis research in a seminar that is open to the general faculty and successfully defend their thesis to their committee.
- Non-Thesis** Option: This non-thesis, coursework-focused graduate program is designed for students aiming to strengthen their preparation for medical school or careers in health sciences. This option will equip students with the scientific foundation and practical skills needed to address chronic diseases and promote health, preparing graduates to excel in advanced health professions and contribute to innovative, preventative healthcare solutions. Students earning this degree will complete courses and learning experiences that will develop the student's knowledge in theoretical aspects of nutrition and metabolic health.

Admissions

Applicants to the Nutrition and Metabolism emphasis of MS in Nutrition and Exercise Physiology must have a GPA of 3.0 or better in science courses (such as chemistry, biology, physics, biochemistry, mathematics, etc.) taken at an accredited institution.

Applicants should have undergraduate preparation that includes lecture and laboratory coursework in general chemistry, organic chemistry, and biology, as well as an undergraduate course in human nutrition. Prior coursework in biochemistry is recommended.

TOEFL scores are required from international applicants.

Complete instructions on the application process can be found on the program's website: <https://cafnr.missouri.edu/academics/degrees-programs/nutrition-and-exercise-physiology-graduate-studies/>

Minimum TOFEL Scores

Internet-based test (iBT)

100

GRE Scores are no longer required by the department.