DNS ADVISING NOTES: Biology Majors
Requirements for the Human Nutrition Program of Study

Note: Biology majors pursuing the Human Nutrition Program of Study work with their advisors to develop their own packages of NS courses. These packages of courses should meet the needs and interests of the individual students while remaining true to the spirit of the program, which is to offer courses with both substantial biology and nutrition content. The decision about which NS courses are included so that the complement provides a program of study with substantial biology and nutrition content that matches the student’s interests is made by the advisor.

Nutritional Sciences draws upon several disciplines, including biology, to understand the relationships between food, nutrients, and human health. The program of study in Human Nutrition offers biology majors courses concerned with the nature and biochemical function of essential and non-essential nutrients, nutrient requirements, the role of nutrients in gene expression, and the role of diet in both risk of chronic disease and treatment of existing disease states.

Students in this program of study are encouraged to complete a diverse set of advanced courses affording a perspective on current knowledge of nutrient requirements and function and how this knowledge can be put to use. With the exception of a core course in the structure and function of nutrients, the course requirements are left unspecified. Faculty advisors work with individual students to develop a curriculum that fits the students’ interests. As part of their program, students are encouraged to obtain laboratory experience either through coursework or research. Faculty in Nutritional Sciences are engaged in a wide variety of research activities, including nutritional regulation of gene expression, nutrient function, and regulation of nutritional status, employing diverse approaches such as cell culture, animal experimentation, and human metabolic studies.

Students completing the program in nutrition most often choose to continue their education in medical or graduate school, and pursue careers in the applied aspects of nutrition or in laboratory-based or epidemiological research.

Required classes for the Program of Study in Human Nutrition (total 13 credits):
NS 3310, Physiological and Biochemical Bases of Human Nutrition (4 cr) and at least 9 credits of additional coursework from the following list:

- NS 1220 Nutrition and the Life Cycle
- NS 2750 Human Biology and Evolution
- NS 3060 Nutritional Problems of Developing Nations
- NS 3150 Obesity and the Regulation of Body Weight
- NS 3220 Maternal and Child Nutrition
- NS 3320 Methods in Nutritional Sciences
- NS 3410 Human Anatomy and Physiology
- NS 3420 Human Anatomy and Physiology-laboratory (requires concurrent registration with NS 3410)
- NS 3470 Human Growth and Development
- NS 4130 Nutritional Genomics-Evolution and Environment
- NS 4310 Mineral Nutrition and Chronic Disease
- NS 4315 Nutrient Requirements and Recommendations: Biological Aspects
- NS 4370 Nutrition, Immunology and Infectious Diseases
- NS 4410 Nutrition and Disease
- NS 4444 Sports Nutrition and Supplements: Concepts and Evidence
- NS 4750 Mechanisms Underlying Mammalian Developmental Defects
- NS 4900 Manipulating the Mouse Genome
- NS 6080 Epigenetics
- NS 6100 Proteins and Amino Acids: Nutritional Regulation of Mammalian Protein
- NS 6110 Molecular Toxicology
- NS 6140 Topics in Maternal and Child Nutrition.
- NS 6310 Micronutrients: Function, Homeostasis and Assessment
- NS 6320 Regulation of Macronutrient Metabolism

Please note:
1. For students in the College of Agriculture and Life Sciences, credits in NS courses count towards the required 55 CALS credits. For students in the College of Arts and Sciences, NS credits count towards the 100 hours required in A&S if those credits fulfill major requirements.
2. Independent study credits cannot be used toward the 13 credit minimum.