Nutrition (NUTR)

Nutrition is the study of how nutrients and food components function at molecular, cellular, and whole-body levels to impact human health and disease. Students are grounded in fundamental sciences as they develop nutrition-specific competencies in nutrition and health, foods, nutritional assessment, wellness, life cycle nutrition, and/or metabolic biochemistry.

The nutrition program prepares students for entry-level positions in health care, education, or the biotechnology industry, or entry into post-baccalaureate professional programs such as dietetic internship, medical school, dental school, or graduate school. Nutrition faculty have expertise in clinical nutrition, sports nutrition, and food science, as well as assessing risk factors of chronic disease risk (i.e., obesity, diabetes, cardiovascular, cognitive) in diverse populations (pediatric, young adult, older adult). Undergraduate students actively participate in ongoing research projects in these areas. The College Health and Nutrition Assessment Survey (CHANAS) (https://colsa.unh.edu/agriculture-nutrition-food-systems/college-health-nutrition-assessment-survey) is one resource that supports nutrition research at the University of New Hampshire.

Students pursuing the B.S. degree in Nutrition choose from one of three areas of specialization: Dietetics, Nutrition and Wellness, or Nutritional Sciences options:

- **Dietetics option**: The curriculum for the Dietetics option is accredited by the Academic Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). Students who complete the B.S. in Nutrition with the Dietetics option are eligible to apply for a dietetic internship, a prerequisite for becoming a registered dietitian.

- **Nutrition and Wellness option**: Students who complete the Nutrition and Wellness option are prepared for jobs in agencies or businesses that have an emphasis on health and wellness, including schools, fitness centers, and non-profit or community organizations.

- **Nutritional Sciences option**: Students in the Nutritional Sciences option most often enroll in a postgraduate educational degree program (e.g., medical school, graduate school, physician assistant program, etc.) or enter the biomedical/biotechnology workplace.

Pre-Professional Health Programs

Students interested in postgraduate careers in the health care professions should visit UNH's Pre-Professional Health Programs Advising Office. Requirements for specific types of professional schools (e.g., medical, dental, physician assistant, pharmacy, etc.) are also provided by the Pre-Professional Health Advising (https://colsa.unh.edu/academics/pre-professional-health-advising) Office. While many of the prerequisite courses required by professional schools are also requirements of the Nutrition major, you should consult with your faculty adviser to create a plan of study that best prepares you for pursuing a career in one of these health professions.

https://colsa.unh.edu/agriculture-nutrition-food-systems

Courses

**Nutrition (NUTR)**

**NUTR 400 - Nutrition in Health and Well Being**

Credits: 4

Addresses scientific principles of human nutrition to promote health and well-being. Overview of the biological significance of food and nutrition, specific nutrient functions, and how the supply and demand of food impacts physical health and well-being. Emphasis on scientific literacy and an appreciation of the ways in which we gain scientific knowledge and understanding. Special fee. Lab.

Attributes: Biological Science(Discovery); Discovery Lab Course

Equivalent(s): ANSC 400, NUTR 400H, NUTR 475

**NUTR 400H - Honors/Nutrition in Health and Well Being**

Credits: 4

This course is designed to teach the scientific principles of human biology using nutritional concepts to promote personal health and well-being. Special fee. Students cannot earn credit for this course if they have taken ANSC 400 or NUTR 475.

Attributes: Biological Science(Discovery); Discovery Lab Course

Equivalent(s): NUTR 400

**NUTR 401 - Professional Perspectives on Nutrition**

Credits: 1

Examines the many opportunities for dietitians and nutrition science professionals, from farm to fork, to health and nutrition outcomes. Students meet and interact with faculty and explore career paths and nutrition strategies in the food and nutrition science fields. Legal and ethical considerations for these professionals are discussed. Content areas for specialization in nutritional sciences, dietetics, health and wellness are reviewed, as well as the Ecogastronomy dual major. Cr/F. Prereq: freshmen, sophomore standing or permission.

**NUTR 403 - Culinary Arts Skills Development**

Credits: 4

This laboratory class explores classical culinary and basic cooking techniques. Classical recipes for stocks, mother sauces, soups and pie crust, quick and yeast breads are featured with hands-on experiential learning using common practices and techniques of the food service industry. Students will gain an understanding of basic ingredients, fabrication, storage, cooking, hygiene and sanitation, equipment usage in modern culinary through demonstration, practice and evaluation. Special Fee.

Equivalent(s): CAN 403

Programs

- Nutrition Major (B.S.) (http://catalog.unh.edu/undergraduate/life-sciences-agriculture/programs-study/nutrition/nutrition-major-bs)
NUTR 405 - Food and Society
Credits: 4
Consideration of the cultural significance of food, emphasizing historical, psychological, social, political, and economic aspects. (Spring semester only.)
Attributes: Social Science (Discovery)
Equivalent(s): ANSC 405, NUTR 405W

NUTR 405W - Food and Society
Credits: 4
Consideration of the cultural significance of food, emphasizing historical, psychological, social, political, and economic aspects. (Spring semester only.) Writing intensive.
Attributes: Social Science (Discovery); Writing Intensive Course
Equivalent(s): NUTR 405

NUTR 476 - Nutritional Assessment
Credits: 4
Designed for the student who plans to enter the health care profession. Introduces the concepts of nutritional assessment and the practical application of these concepts in the nutritional care of clients in clinical, community, and research settings. Prereq: NUTR 400. Special fee.
Equivalent(s): NUTR 751

NUTR 504 - Managerial Skills in Dietetics
Credits: 4
Emphasis on the basic principles of managing clinical, community, and food service operations, including personnel management, in-service and on-the-job training, policy and procedure development, negotiation techniques, facilities, equipment selection, and financial management.
Equivalent(s): NUTR 503

NUTR 505 - ServSafe
Credits: 1
Food safety training and certificate program administered by the National Restaurant Association. SevSafe certification required when working in a variety of food service establishments. Special fee.

NUTR 506 - Nutrition and Wellness
Credits: 4
Course assists students in making informed decisions affecting personal and societal wellness. Emphasis on the dimensions of wellness, including the impact of psychological, emotional and physical health, as well as environmental influences that affect behavior. Prereq: NUTR 400 or equivalent.
Equivalent(s): KIN 527

NUTR 525 - Food and Culture in Italy
Credits: 4
Students will be introduced to the Italian culture and its traditions, with a special focus on food. Part of the course will involve out-of-class activities and tasting experiences in the city of Ascoli Piceno, Italy. Only open to students studying abroad in the UNH-in-Italy Program. Permission required.
Attributes: World Cultures(Discovery)

NUTR 530 - Critical Analysis in Food Studies
Credits: 4
The course aims to investigate concepts and ideas that are essential to food studies. The philosophical aspects of the course are complemented by the experiential components that emphasize the particularity of the Italian environment. Only open to students studying abroad in the UNH-in-Italy Program. Permission required.
Attributes: Humanities(Disc)

NUTR 535 - History of Food in Italy
Credits: 4
Students will examine the history of food in Italy and explore the interconnected sociological, cultural, political and environmental histories. Only open to students studying abroad in the UNH-in-Italy Program. Permission required.
Attributes: Historical Perspectives(Disc)

NUTR 546 - Nutrition in Exercise and Sports
Credits: 4
Advanced nutritional strategies to optimize health, fitness, and athletic performance. Emphasis is on nutrition before, during, and after exercise for fitness, training, and competitions. Topics include healthy strategies for building muscle and losing body fat, as well as dietary manipulation in an effort to gain a competitive advantage. Prereq: NUTR 400 or equivalent.
Equivalent(s): NUTR 646

NUTR 550 - Food Science: Principle and Practice
Credits: 4
Application of scientific principles associated with the study of foods. Topics include: food composition, food additives and regulations, food safety, food biotechnology, product development and sensory evaluation. Principles of scientific inquiry as food ingredients are manipulated in a kitchen lab environment. Prereq: HMGT 403; NUTR 400; CHEM 411 or CHEM 403 and CHEM 404. Special fee. Lab.
Equivalent(s): NUTR 500, NUTR 501

NUTR 560 - Introduction to Research in Nutrition
Credits: 2
Introduction to research methods in nutritional assessment. Students gain both conceptual knowledge and hands-on experience in a collaborative setting while working with the College Health and Nutrition Assessment Project. Prereq: NUTR 400 or equivalent.

NUTR 595 - Mediterranean Diet and Culture
Credits: 4
Is there a diet that allows one to eat, drink, and still be healthy? While Americans struggle with rising rates of obesity and related health conditions, inhabitants of the Mediterranean region enjoy relatively low rates of heart disease, cancer, and obesity. Offers a unique on-site experience in Ascoli Piceno, Italy to investigate the cultural and scientific importance of the Mediterranean Diet. Students review basic nutrition concepts as well as the history and evolution of the Mediterranean diet. Combining lecture, discussion, and experiential activities, NUTR 595 is offered through the UNH Italy Study Abroad Program during the summer session.
Co-requisite: INCO 589

NUTR 600 - Field Experience in Nutrition
Credits: 1-4
Supervised field experience in public and private agencies with planned learning objectives related to clinical and community nutrition and food service management. Students are responsible for their own transportation; faculty member coordinates arrangements with fieldwork sites. Prereq: NUTR 400 or equivalent. Cr/F.
Repeat Rule: May be repeated for a maximum of 6 credits.
NUTR 610 - Nutrition Education and Counseling
Credits: 4
The principles, methods and materials needed to provide nutrition education and counseling services. Emphasis on motivational interviewing, behavior change and developing skills needed to be an effective nutrition educator and counselor. Prereq: NUTR 400 and NUTR 476.
Equivalent(s): NUTR 510

NUTR 625 - From Farm to the Italian Table
Credits: 4
Students will gain an appreciation for food production (harvesting, processing), culinary preparation, and tasting. Hands-on experience will be emphasized through field trips and will provide a broad, informed perspective on farming and sustainable agriculture. Only open to students studying abroad in the UNH-in-Italy Program. Permission required.

NUTR 628 - Culinary Nutrition Practicum
Credits: 4
This course builds on basic cooking techniques learned in NUTR 403 with an emphasis on the study and use of whole food ingredients to prepare and critically evaluate healthy recipes/meals. Techniques such as recipe modification and menu development will be addressed. The course culminates with the development of a multi-course menu developed, prepared and presented by the students in the class.

NUTR 650 - Life Cycle Nutrition
Credits: 4
Comprehensive review of the nutritional issues related to the life cycle. Nutrient requirements of each life cycle stage are analyzed in the context of their metabolic functions. Practical application of theory at each stage of the life cycle through projects and discussion. Prereq: NUTR 400 or equivalent. Recommended BMS 507 and BMS 508.

NUTR 666 - UNH-in-Italy Study Abroad
Credits: 0
Provides a unique opportunity to study abroad in Ascoli Piceno, Italy during the semester. Open only to students studying abroad in the UNH-in-Italy Program. Permission required. Cr/F. Special fee.

NUTR 699 - Independent Study
Credits: 1-4
Scholarly research project in an area of the nutritional sciences under the guidance of a faculty adviser. May be repeated. Prereq: permission. Cr/F. Repeat Rule: May be repeated for a maximum of 8 credits. May be repeated up to 4 times.
Equivalent(s): NUTR 699W

NUTR 700 - Career Development in Dietetics
Credits: 1
Preparation for applying to dietetic internship programs and/or graduate school. Topics include writing resumes and personal statements, interviewing, professional skills, and navigating the online internship application.

NUTR 709 - Nutritional Epidemiology
Credits: 4
This course introduces basic concepts and methods in key areas of nutritional epidemiology, and discusses practical considerations related to designing, analyzing, and evaluating population-based nutrition studies. Research methods used in nutritional epidemiology will be taught to provide students with the ability to critically evaluate the nutritional epidemiological evidence. Learning will be enhanced by practical experiences in the collection, management, and analysis of nutritional epidemiological data during lab and in-class activities. Prereq: an introductory nutrition course and statistics course. Permission required.

NUTR 720 - Community Nutrition
Credits: 4
Identification of causes of complex public health nutrition problems (such as food insecurity and escalating obesity rates) and cost-effective community-based interventions required to solve them. Provides skills and tools needed to assess design, and evaluate community nutrition and wellness interventions. Prereq: NUTR 400 or equivalent. Writing intensive.
Attributes: Writing Intensive Course
Equivalent(s): ANSC 610, ANSC 720

NUTR 730 - From Seed to Sea: Examining Sustainable Food Systems
Credits: 4
Integration of diverse human and natural system interactions in a seminar-based course to understand issues in food system sustainability. Examination of food system structure and function from coupled human and natural systems perspectives. Current and topical issues of food and agriculture include: exploration of using natural resources to meeting growing population demands; conflicting views on meeting food and nutrition requirements; impacts of increased stress on natural resources; inequities and discrimination in the food system; impact on dietary guidelines on the environment. Prereq: NUTR 400 or NUTR 405 or by permission.

NUTR #733 - Inv Diet Supplements & Herbs
Credits: 4
Investigations into the potential benefits to human health of medicinal herbs and other dietary supplements. Students critically evaluate the potential effectiveness of dietary supplements by relying on peer-reviewed nutrition and medical journals. Safety, efficacy, and legality of dietary supplements are critically evaluated, as well as governmental regulations and industry marketing approaches. Several exemplary dietary supplements are examined in detail. Recommended for students in the health sciences (nutrition, nursing, biomedical sciences). Students are expected to attend live sessions of this synchronous online course at the regularly scheduled class times, and all exams will take place in a UNH classroom at the regularly-scheduled class times on the dates indicated in the syllabus. Prereq: NUTR 400. Attributes: Online with some campus visits, EUNH.

NUTR 740 - Nutrition for Children with Special Needs
Credits: 4
Nutritional assessment and care of children with special needs resulting in feeding difficulties requiring medical nutrition therapy. Prereq: NUTR 400.
NUTR 750 - Nutritional Biochemistry
Credits: 4
Digestion, absorption, transport, and utilization of food nutrients. Role of macro- and micro-nutrients as substrates and catalysts for metabolic pathways, and the role of these pathways in maintaining human health at the cellular, organ, and whole body levels. Prereq: BMS 507 and BMS 508 or ANSC 511 and ANSC 512; BMCB 658 or equivalents. Writing intensive.
Attributes: Writing Intensive Course
Equivalent(s): ANSC 750, ANSC 750W, NUTR 750W

NUTR 751 - Nutritional Biochemistry of Micronutrients
Credits: 4
Investigation of the nutritional and biochemical aspects of micronutrient metabolism. All essential vitamins and minerals, as well as some phytonutrients and quasi-nutrients, are explored in depth. Nutrients are examined for their molecular, cellular, metabolic and biomedical functions, as well as the biochemical and clinical consequences of their deficiency or excess. Prereq: NUTR 750 or equivalent.

NUTR 755 - Treatment of Adult Obesity
Credits: 3
Overview of the risk factors associated with obesity; evidence-based recommendations for assessment and treatment of obesity. Counseling skills important to successful weight management and non-diet approaches are also explored. Prereq: NUTR 400, 476, and NUTR 610.
Co-requisite: NUTR 758
Equivalent(s): NUTR 756

NUTR 758 - Practicum in Weight Management
Credits: 2
Assist clients in making lifestyle and dietary changes over a 10-week period and develop skills in marketing, advertising, counseling, an oral communication related to weight management. Prereq: NUTR 400 or equivalent; NUTR 476; and NUTR 610. Special fee.
Co-requisite: NUTR 755
Repeat Rule: May be repeated for a maximum of 4 credits.
Equivalent(s): NUTR 680

NUTR 760 - Research Experience Nutrition I
Credits: 2
Review scientific literature, formulation of research questions, testing hypotheses, analysis and interpretation of research data, and formal presentation of findings. Students gain conceptual knowledge and hands-on experience while working with established research projects. NUTR 760 focuses on the review of scientific literature and the development and testing of a research question. Prereq: NUTR 560.

NUTR 761 - Research Experience Nutrition II
Credits: 2
Review scientific literature, formulation of research questions, testing hypotheses, analysis and interpretation of research data, and formal presentation of findings. Students gain conceptual knowledge and hands-on experience while working with established research projects. NUTR 761 focuses on understanding and communicating research findings in a collaborative setting. Prereq: NUTR 760.

NUTR 765 - Geriatric Nutrition
Credits: 4
Overview of the physiological changes associated with aging and their impact on preparing, consuming, digesting, absorbing, and metabolizing food. Role of routine nutritional assessment in the promotion of health to prevent and manage chronic disease, with a social focus on the influence of polypharmacy on nutritional status. Prereq: NUTR 400 or equivalent; NUTR 650.

NUTR 773 - Clinical Nutrition
Credits: 4
Principles and mechanisms of disease that result in altered nutrient requirements in humans. Prereq: NUTR 400; BMS 507 and BMS 508.
Equivalent(s): ANSC 773, ANSC 774, NUTR 774

NUTR 775 - Practical Applications in Medical Nutrition Therapy
Credits: 4
Combination of lecture and supervised practical experience in medical nutrition therapy in a New England hospital. Emphasizes nutritional counseling, assessment, and instruction of patients with nutrition-related disorders. Prereq: NUTR 400; BMS 507 and BMS 508 or ANSC 511 and ANSC 512; BMCB 658. Special fee.
Equivalent(s): ANSC 775

NUTR 780 - Critical Issues in Nutrition
Credits: 4
Critical review and analysis of controversial topics in nutrition; emphasis on developing oral and written communication skills and critical thinking skills. Writing intensive. Prereq: NUTR 773 or permission.
Attributes: Writing Intensive Course
Equivalent(s): ANSC 780

NUTR 790 - Undergraduate Teaching Experience
Credits: 1-2
Assist graduate teaching assistants or faculty in preparing, presenting, and executing NUTR courses/laboratories.
Repeat Rule: May be repeated for a maximum of 4 credits.

NUTR 795 - Investigations
Credits: 1-4
Prereq: permission.
Equivalent(s): NUTR 795W

NUTR 795W - Investigations
Credits: 1-4
Prereq: permission. Writing intensive.
Attributes: Writing Intensive Course
Equivalent(s): NUTR 795

NUTR 799 - Senior Thesis
Credits: 1-4
A special project conducted under faculty supervision and resulting in a written honors thesis. Students must initiate discussion of the project with an appropriate faculty member. Offered both semesters. Prereq: Junior or Senior major with cum. GPA of 3.20; permission. Writing intensive.
Attributes: Writing Intensive Course

NUTR 799H - Honors Senior Thesis
Credits: 1-4
A special project conducted under faculty supervision and resulting in a written honors thesis. Students must initiate discussion of the project with an appropriate faculty member. Prereq: Senior major with cum. GPA of 3.50; permission. Writing intensive.
Attributes: Writing Intensive Course

Faculty

https://colsa.unh.edu/agriculture-nutrition-food-systems/faculty-staff-directory