

# 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 degree prepares students for entry-level positions in health care, education, community health, or the biotechnology industry. The curriculum also supports entry into post-baccalaureate professional programs such as a dietetic internship, medical or dental school, physician associate/physician assistant programs, as well as graduate school. Nutrition faculty have expertise in clinical nutrition, community 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) 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, Health and Wellness, or Nutritional Sciences.

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 masters degree and dietetic internship, a prerequisite for becoming a registered dietitian.

Students who complete the Health 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.

Students in the Nutritional Sciences option most often enroll in a post-graduate educational degree program (e.g., medical school, graduate school, physician associate/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 associate/physician assistant, pharmacy, etc.) are also provided by the [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>

## Programs

- [Culinary Nutrition and Food Studies Minor](#)
- [Nutrition Major \(B.S.\)](#)
- [Nutrition Major: Dietetics Option \(B.S.\)](#)

- [Nutrition Major: Health and Wellness Option \(B.S.\)](#)
- [Nutrition Major: Nutritional Sciences Option \(B.S.\)](#)
- [Nutrition Minor](#)

## Courses

### Nutrition (NUTR)

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

**Credits:** 0 or 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. Lab.

**Attributes:** Biological Science(Discovery); Discovery Lab Course

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

**Grade Mode:** Letter Grading

**Special Fee:** Yes

#### 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.

**Grade Mode:** Credit/Fail Grading

#### 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.

**Equivalent(s):** CAN 403

**Grade Mode:** Letter Grading

**Special Fee:** Yes

#### 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

**Grade Mode:** Letter Grading

#### 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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-

**Grade Mode:** Letter Grading

**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**Grade Mode:** Letter Grading**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Mutual Exclusion:** No credit for students who have taken EXSC 527, KIN 527.**Grade Mode:** Letter Grading**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.

**Attributes:** World Cultures(Discovery)**Grade Mode:** Letter Grading**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.

**Attributes:** Humanities(Disc)**Grade Mode:** Letter Grading**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.

**Attributes:** Historical Perspectives(Disc)**Grade Mode:** Letter Grading**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Equivalent(s):** NUTR 646**Grade Mode:** Letter Grading**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. Lab.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and NUTR 403 with a minimum grade of D- and (CHEM 411 with a minimum grade of D- or CHEM 403 with a minimum grade of D- and CHEM 404 with a minimum grade of D-).**Equivalent(s):** NUTR 500, NUTR 501**Grade Mode:** Letter Grading**Special Fee:** Yes**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Grade Mode:** Letter Grading**Special Fee:** Yes**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**Grade Mode:** Letter Grading**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Repeat Rule:** May be repeated for a maximum of 6 credits.**Grade Mode:** Credit/Fail Grading**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and NUTR 476 with a minimum grade of D-.**Equivalent(s):** NUTR 510**Grade Mode:** Letter Grading

**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.

**Grade Mode:** Letter Grading**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.

**Grade Mode:** Letter Grading**Special Fee:** Yes**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. Recommended BMS 507 and BMS 508.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Grade Mode:** Letter Grading**NUTR 686 - 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.

**Grade Mode:** Not graded**Special Fee:** Yes**NUTR 699 - Independent Study****Credits:** 1-4

Scholarly project in an area of the nutritional sciences under the guidance of a faculty adviser.

**Repeat Rule:** May be repeated for a maximum of 8 credits. May be repeated up to 4 times.**Equivalent(s):** NUTR 699W**Grade Mode:** Credit/Fail Grading**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.

**Grade Mode:** Letter Grading**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and (PSYC 402 with a minimum grade of D- or SOC 502 with a minimum grade of D- or BIOL 528 with a minimum grade of D-).**Grade Mode:** Letter Grading**NUTR 710 - Advanced Diabetes Care****Credits:** 2

Advanced Diabetes Care is a 2-credit course designed to build on foundational knowledge of diabetes care and education. During the semester, students will explore the pathophysiology of diabetes as well as modern medications and technology used to improve blood sugar management. Students will apply their knowledge of diabetes and nutrition to interpret data and deliver effective, compassionate care.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and BMS 507 with a minimum grade of D- and BMS 508 with a minimum grade of D-.**Grade Mode:** Letter Grading**NUTR 715 - Advanced Sports Nutrition****Credits:** 4

The focus of the course is placed on the application of evidence-based knowledge to sport-specific scenarios. Insight and skills gained in this course will expand students' abilities in assisting and recommending proper nutritional strategies for athletes during training and competition. Additionally, this discusses strategies to combat common issues athletes may encounter, such as injuries, illness, eating disorders, and gastrointestinal discomfort.

**Prerequisite(s):** NUTR 546 with a minimum grade of D-.**Grade Mode:** Letter Grading**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.

**Attributes:** Writing Intensive Course**Prerequisite(s):** NUTR 400 with a minimum grade of D-.**Equivalent(s):** ANSC 610, ANSC 720**Grade Mode:** Letter Grading

**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- or NUTR 405 with a minimum grade of D-.

**Grade Mode:** Letter Grading

**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.

**Prerequisite(s):** NUTR 400 with a minimum grade of D-.

**Grade Mode:** Letter Grading

**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.

**Attributes:** Writing Intensive Course

**Prerequisite(s):** (BMS 507 with a minimum grade of D- and BMS 508 with a minimum grade of D-) or (ANSC 511 with a minimum grade of D- and ANSC 512 with a minimum grade of D-) and BMCB 658 with a minimum grade of D-.

**Equivalent(s):** ANSC 750, ANSC 750W, NUTR 750W

**Grade Mode:** Letter Grading

**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.

**Prerequisite(s):** NUTR 750 with a minimum grade of D-.

**Grade Mode:** Letter Grading

**NUTR 755 - Concepts and Controversies in Weight Management****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.

**Co-requisite:** NUTR 758

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and NUTR 476 with a minimum grade of D- and NUTR 610 with a minimum grade of D-.

**Equivalent(s):** NUTR 756

**Grade Mode:** Letter Grading

**NUTR 758 - Practicum in Nutrition and Wellness****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.

**Co-requisite:** NUTR 755

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and NUTR 476 with a minimum grade of D- and NUTR 610 with a minimum grade of D-.

**Repeat Rule:** May be repeated for a maximum of 4 credits.

**Equivalent(s):** NUTR 680

**Grade Mode:** Letter Grading

**NUTR 773 - Clinical Nutrition****Credits:** 4

Principles and mechanisms of disease that result in altered nutrient requirements in humans.

**Prerequisite(s):** NUTR 400 with a minimum grade of D- and BMS 507 with a minimum grade of D- and BMS 508 with a minimum grade of D-.

**Equivalent(s):** ANSC 773, ANSC 774, NUTR 774

**Grade Mode:** Letter Grading

**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.

**Prerequisite(s):** NUTR 476 with a minimum grade of D- and ((BMS 507 with a minimum grade of D- and BMS 508 with a minimum grade of D-) or (ANSC 511 with a minimum grade of D- and ANSC 512 with a minimum grade of D-)) and (BMCB 658 with a minimum grade of D- or BMCB 658A with a minimum grade of D-).

**Equivalent(s):** ANSC 775

**Grade Mode:** Letter Grading

**Special Fee:** Yes

**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.

**Attributes:** Writing Intensive Course

**Prerequisite(s):** NUTR 773 with a minimum grade of D-.

**Equivalent(s):** ANSC 780

**Grade Mode:** Letter Grading

**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.

**Grade Mode:** Letter Grading

**NUTR 795 - Investigations****Credits:** 1-4

Scholarly research project in an area of the nutritional sciences under the guidance of a faculty adviser.

**Equivalent(s):** NUTR 795W

**Grade Mode:** Letter Grading

**NUTR 795W - Investigations****Credits:** 1-4

Scholarly research project in an area of the nutritional sciences under the guidance of a faculty adviser.

**Attributes:** Writing Intensive Course**Equivalent(s):** NUTR 795**Grade Mode:** Letter Grading**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.

**Attributes:** Honors course; Writing Intensive Course**Repeat Rule:** May be repeated for a maximum of 8 credits. May be repeated up to 1 time.**Grade Mode:** Letter Grading

## Faculty

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