

NUTRITION (NUTR)

Additional Resources

- Catalog Course Search (<https://catalog.unc.edu/course-search/>)
- Course Numbering Guide (<https://catalog.unc.edu/courses/course-numbering/>)
- Scheduled Classes (<https://reports.unc.edu/class-search/>)
- Historical Course Record (https://reports.unc.edu/historical_course_record/)

Courses

NUTR 175. Introduction to Food Studies: From Science to Society. 3 Credits.

Introduction to food studies covering a variety of topics including how food was consumed over history, land use and aquaculture, food in the arts, food and culture in the American South, food politics, and nutrition science. Previously offered as ANTH 175.

Rules & Requirements

 **IDEAs in Action Gen Ed:** FC-GLOBAL or FC-PAST.

Making Connections Gen Ed: GL, NA.

Grading Status: Letter grade.

Same as: AMST 175.

NUTR 240. Introduction to Human Nutrition. 3 Credits.

Relationships of human nutrition to health and disease. Integration of biology, chemistry, and social sciences as related to human function. Nutrient composition of foods and safety of the food supply.

Rules & Requirements

Requisites: Prerequisites, BIOL 101/101L and CHEM 102/102L.

Grading Status: Letter grade.

NUTR 245. Sustainable Local Food Systems: Intersection of Local Foods and Public Health. 3 Credits.

Examines the intersection of local foods and public health with respect to nutrition and environmental, economic, and community issues. Students explore impacts and potential solutions of the increasingly industrialized and centralized food system, while assisting community partners to increase opportunities for farmers, local food marketers, distributors, and entrepreneurs.

Rules & Requirements

Making Connections Gen Ed: EE- Service Learning.

Grading Status: Letter grade.

NUTR 250. Global Sustainable Food Systems. 3 Credits.

This course will provide an overview of global food systems drivers, elements, and activities; key players; key problems, and potential solutions. Students will learn about challenges facing food systems across the globe, and learn to critically evaluate the design, measurement, and impact of programs, policies, and interventions addressing these challenges. Students will also learn about methods to assess food systems activities and impacts.

Rules & Requirements

Grading Status: Letter grade.

NUTR 295. Undergraduate Research Experience in Nutrition. 3 Credits.

Permission of the instructor. For undergraduates enrolled in the department's baccalaureate degree program. Directed readings or laboratory study on a selected topic. May be taken more than once for credit.

Rules & Requirements

 **IDEAs in Action Gen Ed:** RESEARCH.

Making Connections Gen Ed: EE- Mentored Research.

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 12 total credits. 4 total completions.

Grading Status: Letter grade.

NUTR 400. Introduction to Nutritional Biochemistry. 3 Credits.

Function of the human body focusing on chemical properties, function, and metabolism of nutrients. Biochemistry of nutrients with a limited focus on medical aspects of nutrient metabolism. For advanced undergraduates and graduate students needing to enhance background prior to NUTR 600.

Rules & Requirements

Requisites: Prerequisites, BIOL 101, CHEM 101 and 102, and NUTR 240; permission of the instructor for students lacking the prerequisites.

Grading Status: Letter grade.

NUTR 405. Fundamentals of Food and Nutrition Policy in Public Health. 3 Credits.

This course focuses on food and nutrition policy on a federal, state, and local level. Topics covered include policy formation, interest/consumer advocacy groups, key legislation, how research informs policy, equity and diversity, global food policy issues, sustainability and health, advocacy, and current public health nutrition policy hot topics and examples.

Rules & Requirements

Grading Status: Letter grade.

NUTR 470. Foundations of Nutrition Interventions. 3 Credits.

This course is designed to introduce students to clinical trials in nutrition, including experimental designs, nutrition intervention methods, and skills necessary to critically analyze, describe, and evaluate feeding and behavioral nutrition interventions. The course covers concepts, skills and methods related to nutrition interventions, with an emphasis on theory-based interventions at the individual, community, or environmental levels to improve health and nutrition outcomes.

Rules & Requirements

Grading Status: Letter grade.

NUTR 600. Human Metabolism: Macronutrients. 3 Credits.

Cell biochemistry and physiology emphasizing integration of proteins, carbohydrates, and lipids in whole-body metabolism; regulation of energy expenditure, food intake, metabolic adaptations, and gene expression; and macronutrient-related diseases (atherosclerosis, obesity).

Rules & Requirements

Requisites: Prerequisite, NUTR 400; permission of the instructor for students lacking the prerequisite.

Grading Status: Letter grade.

NUTR 611. Food And Your Life Stages. 3 Credits.

This course covers nutrition during the life cycle. Units include women during preconception, pregnancy, and lactation; infancy; childhood; adolescence; and older adults (65+). Nutrient and energy needs, assessment of nutritional status, and cultural and socioeconomic barriers are discussed for each phase.

Rules & Requirements

Requisites: Prerequisite, NUTR 240.

Grading Status: Letter grade.

Same as: MHCH 611.

NUTR 620. Human Metabolism: Micronutrients. 3 Credits.

Cell biochemistry and physiology emphasizing metabolism of vitamins and minerals including antioxidant protection, immune function, nutrient control of gene expression, and disease states induced by deficiencies (e.g., iron-deficient anemia).

Rules & Requirements

Requisites: Prerequisites, NUTR 400 and 600; permission of the instructor for students lacking the prerequisites.

Grading Status: Letter grade.

NUTR 630. Nutrition Communication and Culture. 3 Credits.

Course teaches the future nutrition professional the art and science of communicating with individuals, groups, and the public. Students will enhance cultural awareness and frame nutrition messages for mass media including social media.

Rules & Requirements

Requisites: Prerequisite, NUTR 240; permission of the instructor for students lacking the prerequisite.

Grading Status: Letter grade.

NUTR 646. Mouse Models of Human Disease. 1 Credits.

This course will focus on the laboratory mouse as a model organism to learn fundamental genetic concepts and understand how state-of-the-art experimental approaches are being used to elucidate gene function and the genetic architecture of biological traits.

Rules & Requirements

Grading Status: Letter grade.

Same as: GNET 646.

NUTR 660L. Food Service Systems Management Experience. 1 Credits.

This is a food service management practicum that applies the basic concepts of institutional food service systems. Two laboratory hours per week.

Rules & Requirements

Requisites: Co-requisite, NUTR 660.

Grading Status: Letter grade.

 **NUTR 691H. Honors Research in Nutrition. 3 Credits.**

This is an honors course for research for the first semester of senior year, to be followed by NUTR 692H in the second semester. NUTR 691H/692H is a two-course sequence. Enrollment is only for students approved to conduct a senior honors thesis project.

Rules & Requirements

 **IDEAs in Action Gen Ed:** RESEARCH.

Making Connections Gen Ed: EE- Mentored Research.

Requisites: Prerequisite, NUTR 295.

Grading Status: Letter grade.

 **NUTR 692H. Honors Research in Nutrition. 3 Credits.**

Permission of the instructor. Directed readings or laboratory study of a selected topic. Requires a written proposal to be submitted to and approved by the B.S.P.H. Committee and faculty research director. A written report is required. May be taken more than once for credit. Six laboratory hours per week.

Rules & Requirements

 **IDEAs in Action Gen Ed:** RESEARCH.

Making Connections Gen Ed: EE- Mentored Research.

Grading Status: Letter grade.

NUTR 695. Nutrition Research. 1-9 Credits.

Permission of the instructor. Individual arrangements with faculty for bachelor and master students to participate in ongoing research.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 12 total credits. 8 total completions.

Grading Status: Letter grade.

NUTR 696. Readings in Nutrition. 1-9 Credits.

Permission of the instructor. Reading and tutorial guidance in special areas of nutrition.

Rules & Requirements

Repeat Rules: May be repeated for credit; may be repeated in the same term for different topics; 12 total credits. 8 total completions.

Grading Status: Letter grade.

NUTR 701. Nutrition Practicum Preparation. 2 Credits.

This course provides support for the practicum process and trains students on how to ethically, meaningfully, and professionally engage and prepare for practicum placements. Students will learn how to work within their organization and their stakeholders through building skills in leadership and interprofessional practice. Additionally, students will sharpen their clinical skills in preparation for their hospital-based experience and include mandatory on-boarding requirements.

Rules & Requirements

Requisites: Prerequisite, SPHG 711, SPHG 712, SPHG 713.

Grading Status: Letter grade.

NUTR 705. Human Nutrition. 3 Credits.

Fundamental scientific premises of human nutrition. This course covers the basic concepts of macro and micronutrients, food sources, and the evidence-based requirements for a healthy diet. This course integrates nutritional needs of populations, with an emphasis on nutrition-related diseases, including over and undernutrition.

Rules & Requirements

Grading Status: Letter grade.

NUTR 711. Nutrition Across the Lifecycle. 3 Credits.

This course covers nutrition during the life cycle. Units include women during preconception, pregnancy, and lactation; infancy; childhood; adolescence; and older adults (65+). Nutrient and energy needs, assessment of nutritional status, and cultural and socioeconomic barriers are discussed for each phase.

Rules & Requirements

Requisites: Prerequisite, NUTR 705 or equivalent.

Grading Status: Letter grade.

NUTR 712. Nutrition Communication, Counseling and Culture. 3 Credits.

This course teaches the future nutrition professional the art and science of communicating with individuals, groups, and the public. Students will enhance cultural awareness, practice counseling individuals and facilitating groups, and frame nutrition messages for mass media including social media.

Rules & Requirements

Requisites: Prerequisite, NUTR 705 or equivalent.

Grading Status: Letter grade.

NUTR 713. Nutrition Communication, Culture and Equity. 3 Credits.

This course teaches the future nutrition professional the art and science of communicating with individuals, groups, and the public. Students will explore the role of nutrition in different cultures and how to frame nutrition messages for mass media including social media. The course will also focus on nutrition justice and nutritional health equity.

Rules & Requirements

Requisites: Prerequisite, NUTR 705 or equivalent.

Grading Status: Letter grade.

NUTR 714. Nutritional Biochemistry, Metabolism and Health. 3 Credits.

Introduction to biochemistry and functions of macro- and micro-nutrients with a limited focus on medical aspects of nutrient deficiencies and metabolism. Focus on chemical structures, chemical properties, metabolism, and functions of macro- and micro-nutrients.

Rules & Requirements

Requisites: Prerequisites, BIOL 252 and 252L, BIOL 422 and 422L, NUTR 240, CHEM 261 and CHEM 430, or permission from the instructor.

Grading Status: Letter grade.

NUTR 715. Medical Nutrition Therapy: Chronic Disease Management. 4 Credits.

A lecture and skills course where students practice skills used in nutrition therapy and the Nutrition Care Process (such as calculating caloric intake and modifying intake, calculating diabetic diets, calculating sodium content of intakes, etc.) under the supervision of a Registered Dietitian.

Rules & Requirements

Requisites: Prerequisites, NUTR 711 and NUTR 712.

Grading Status: Letter grade.

NUTR 722. Nutrition Thesis Seminar. 1 Credits.

The changing landscape of nutritional science research has increased the demand of early-career investigators to be more transdisciplinary, perform highly rigorous research, and be prepared for less-traditional research positions. With a framework of performing reproducible research, this course introduces students to the concepts and skills to perform and understand rigorous nutrition research. The course also covers aspects of research ethics, effective use of UNC research resources, work-life balance and research innovation. Restricted to first year MS students and senior BSPH Honors students.

Rules & Requirements

Grading Status: Letter grade.

NUTR 723. Community Nutrition. 3 Credits.

This course provides graduate students with competencies to assess factors that influence the nutritional status of the population; identify community resources to promote and support nutrition and health; conduct community assets and needs assessments; and design, implement, and evaluate public health nutrition programs.

Rules & Requirements

Requisites: Prerequisite, SPHG 701.

Grading Status: Letter grade.

NUTR 745. International Nutrition. 3 Credits.

Provides a broad overview of international nutrition research issues, programs, and policies. Topics will include micronutrient deficiencies, child feeding and growth, determinants of under- and over-nutrition, chronic disease and nutrition, food fortification and supplementation, and nutrition intervention programs and policy.

Rules & Requirements

Grading Status: Letter grade.

NUTR 746. Taxes, Bans & Burgers: Directed Readings in Global Food Policy. 1 Credits.

Course will explore the social, historical, and political context of how individuals make decisions about what to eat; how this context shapes food policy; and how these policies in turn shape individual behavior, by employing a comparative framework over three countries (China, Mexico, and the U.S.).

Rules & Requirements

Grading Status: Letter grade.

NUTR 749. mHealth for Behavior Change. 2 Credits.

This special topics seminar examines the impact and potential of mobile health interventions and apps for health behavior change. The overall course objective is to understand state of the science and future potential to leverage mobile phones and wearable technologies in innovative and powerful behavior change interventions to improve health. The course considers adaptation of eHealth interventions for mobile delivery, unique opportunities with mHealth, data collection via mobile devices and sensors, and using the data.

Rules & Requirements

Grading Status: Letter grade.

Same as: HBEH 749.

NUTR 760. Food Science. 2 Credits.

Introduction to foods, chemical and physical properties, nutritional composition, food safety, production, and regulation.

Rules & Requirements

Requisites: Corequisite, NUTR 761L.

Grading Status: Letter grade.

NUTR 760L. Food Science Laboratory. 1 Credits.

Basic culinary techniques. Classes illustrate biochemical processes and food properties covered in lecture. Introduction to new foods and food ideas. Critical evaluation of recipes. Laboratory fee required. Three laboratory hours per week.

Rules & Requirements

Requisites: Corequisite, NUTR 760.

Grading Status: Letter grade.

NUTR 761L. Food Science Laboratory. 1 Credits.

Basic culinary techniques. Classes illustrate biochemical processes and food properties covered in lecture. Introduction to new foods and food ideas. Critical evaluation of recipes. Laboratory fee required. Three laboratory hours per week.

Rules & Requirements

Requisites: Corequisite, NUTR 760.

Grading Status: Letter grade.

NUTR 765. Nutritional Epidemiology for Master's Students. 3 Credits.

This course introduces basic methods of dietary assessment, reviews various topics in nutrition epidemiology, and teaches the skills needed for critical evaluation of the nutritional epidemiologic literature.

Rules & Requirements

Requisites: Prerequisite, SPHG 711, SPHG 712, SPHG 713, SPHG 721, SPHG 722 (MPH Core Courses).

Grading Status: Letter grade.

NUTR 770. Clinical Trials in Nutrition. 3 Credits.

This course is designed to introduce students to nutrition interventions and help students develop knowledge and skills necessary to critically analyze, describe, and evaluate behavioral nutrition interventions. The course covers concepts, skills and methods related to nutrition interventions, with an emphasis on theory-based interventions at the individual, community, or environmental levels to improve health and nutrition outcomes.

Rules & Requirements

Grading Status: Letter grade.

NUTR 785. Graduate Teaching Experience. 1 Credits.

Permission of the instructor. Individual arrangements with faculty for a graduate student to serve as a teaching assistant for a nutrition course.

Rules & Requirements

Repeat Rules: May be repeated for credit.

Grading Status: Letter grade.

NUTR 805. Nutrition Policy. 3 Credits.

This course focuses on nutrition policy on a federal, state, and local level. Topics covered include policy formation, interest/consumer advocacy groups, key legislation, how research informs policy, equity and diversity, global food policy issues, sustainability and health, advocacy, and current public health nutrition policy examples. Permission of the instructor for undergraduates.

Rules & Requirements

Grading Status: Letter grade.

NUTR 808. Global Cardiometabolic Disease Seminar. 1 Credits.

This core seminar addresses biology, genetics, epidemiology, intervention and policy strategies relevant for addressing global cardiometabolic disease, as well as, professional development and responsible conduct of research in global settings.

Rules & Requirements

Repeat Rules: May be repeated for credit. 4 total credits. 4 total completions.

Grading Status: Letter grade.

NUTR 810. Physical Activity Epidemiology and Public Health. 3 Credits.

This course provides an overview of major issues in physical activity measurements, population distribution, correlates, impacts (physically and economically), and public health recommendations. Interventions, including relevant theories, will be reviewed. Three lecture hours per week.

Rules & Requirements

Requisites: Prerequisite, EPID 600.

Grading Status: Letter grade.

Same as: EPID 810.

NUTR 812. Introduction to Obesity: Cell to Society. 3 Credits.

Provides a broad survey of obesity research including measurement issues, biological, social and economic etiologies, health and economic consequences, and prevention and treatment of obesity.

Rules & Requirements

Grading Status: Letter grade.

NUTR 813. Introduction to Epidemiology for Nutrition Applications. 3 Credits.

This course introduces basic methods of dietary assessment, reviews various topics in nutrition epidemiology, and teaches the skills needed for critical evaluation of the nutritional epidemiologic literature.

Rules & Requirements

Requisites: Prerequisites, BIOS 600, and EPID 600 or 710.

Grading Status: Letter grade.

NUTR 814. Obesity Epidemiology. 3 Credits.

Examines epidemiology research on the causes, consequences, and prevention of obesity. Emphasis on methodological issues pertinent to obesity research.

Rules & Requirements

Requisites: Prerequisites, BIOS 545, EPID 715, 716 and NUTR 812 or NUTR 813.

Grading Status: Letter grade.

Same as: EPID 814.

NUTR 816. Nutritional Epidemiology. 3 Credits.

This course covers key concepts in nutritional epidemiology, including dietary assessment and analytic approaches. The goal is to teach and reinforce the application of conceptual understanding to the critical evaluation of nutritional epidemiology literature. Comfort with basic epidemiologic and biostatistical concepts and methods is assumed.

Rules & Requirements

Requisites: Prerequisite, EPID 710, EPID 716, BIOS 600, or equivalent.

Grading Status: Letter grade.

NUTR 818. Analytical Methods in Nutritional Epidemiology. 3 Credits.

Skills and techniques to study how dietary exposures, physical activity, and anthropometric status relate to disease outcomes. Focus is hands-on data analysis using STATA, and interpretation of results from statistical analysis.

Rules & Requirements

Requisites: Prerequisites, BIOS 545, EPID 600 or 710, and NUTR 813.

Grading Status: Letter grade.

Same as: EPID 818.

NUTR 845. Nutritional Metabolism. 3 Credits.

A problem-based approach to examine current topics in biochemistry relevant to nutrition and metabolism. Students interpret data and design experiments related to recent advances in nutritional biochemistry.

Rules & Requirements

Requisites: Prerequisite, NUTR 600.

Grading Status: Letter grade.

NUTR 865. Advanced Nutritional Biochemistry: Nutrigenomics and Precision Nutrition. 2 Credits.

Permission of the instructor. Course focuses on nutrigenetics and nutrigenomics with an emphasis on the genetic and dietary interactions predisposing one to increased risk of disease.

Rules & Requirements

Grading Status: Letter grade.

Same as: GNET 865.

NUTR 867. Advanced Nutritional Biochemistry: Vitamins and Disease. 2 Credits.

Focuses on the molecular processes involving B and D-group vitamins, mechanisms of pathologies caused by their deficiency, as well as the latest studies on nutritional requirements, population consumption levels, and use of the vitamins for treatment and prevention of human disease.

Rules & Requirements

Requisites: Prerequisites, NUTR 600 and 620; permission of the instructor for students lacking the prerequisites.

Grading Status: Letter grade.

NUTR 868. Advanced Nutritional Biochemistry: Nutrition and Cancer. 2 Credits.

The course will cover the biology of cancer as well as the metabolic and physiological functions of nutritional factors and how they impact the cancer process. The course will focus on aspects of current research that are relevant to links between nutritional factors, with emphasis on mechanism-based cancer prevention approaches.

Rules & Requirements

Requisites: Prerequisite, NUTR 600 or equivalent.

Grading Status: Letter grade.

NUTR 880. Elements of Being a Scientist. 3 Credits.

Permission of the instructor. For doctoral students prepared with Ph.D. aims/focus. Focuses on key elements that contribute to a successful career as a scientific researcher. These include scientific presentations, NIH proposal grant writing, evaluating published manuscripts, sources of funding, peer review, use of animals and humans in research, and scientific ethics.

Rules & Requirements

Grading Status: Letter grade.

NUTR 885. Doctoral Seminar. 2 Credits.

The changing landscape of nutritional science research has increased the demand of early-career investigators to be more transdisciplinary, perform highly rigorous research, and be prepared for less-traditional research positions. With a framework of performing reproducible research, this course introduces students to the concepts and skills to perform and understand rigorous nutrition research. The course also covers aspects of research ethics, effective use of UNC research resources, work-life balance and research innovation.

Rules & Requirements

Repeat Rules: May be repeated for credit. 4 total credits. 2 total completions.

Grading Status: Letter grade.

NUTR 910. Nutrition Research. 1-9 Credits.

Individual arrangements with faculty for doctoral students to participate in ongoing research.

Rules & Requirements

Repeat Rules: May be repeated for credit.

Grading Status: Letter grade.

NUTR 920. Research Rotations for Nutritional Biochemistry Doctoral Students. 1-3 Credits.

Two laboratory or research group rotations supervised by nutritional biochemistry faculty. Provides a breadth of research experience for students prior to selecting dissertation adviser. Up to six laboratory hours per week.

Rules & Requirements

Grading Status: Letter grade.

NUTR 992. Master's (Non-Thesis). 3 Credits.**Rules & Requirements**

Repeat Rules: May be repeated for credit.

NUTR 993. Master's Research and Thesis. 3 Credits.**Rules & Requirements**

Repeat Rules: May be repeated for credit.

NUTR 994. Doctoral Research and Dissertation. 3 Credits.**Rules & Requirements**

Repeat Rules: May be repeated for credit.