

NUTR - Nutrition

NUTR 221CS Basic Human Nutrition: 3 Credits (3 Lec)

(F, Sp, Su) Basic concepts of human nutrition which include carbohydrates, lipids, proteins, vitamins, minerals, absorption, digestion, metabolism, and energy utilization as they relate to health and food consumption at different stages of the life cycle.

NUTR 224 Careers in Nutrition and Dietetics: 1 Credits (1 Lec)

PREREQUISITE: Sophomore status, NUTR 221 Basic Human Nutrition or Consent of Instructor. (F) Careers in Nutrition and Dietetics is an introduction to the career opportunities in the field of nutrition and healthcare for food and nutrition majors. Emerging health care delivery models, intraprofessional roles and reimbursement for nutrition services will be discussed. Emphasis on critical thinking, evidence-based practice and professional ethics

NUTR 226 Food Fundamentals: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS. (F, Sp) Principles of food composition, preparation, selection, food safety and storage with special reference to physical and chemical changes which occur during normal food handling. Includes an introduction to meal planning, sensory evaluation, and cultural food perspectives

NUTR 227 Food Fundamentals Lab: 2 Credits (2 Lab)

PREREQUISITE: NUTR 221CS
COREQUISITE: NUTR 226. (F, Sp) Practical experiences which illustrate the principles of ingredient functionality, methods of preparation, preservation, food safety and sensory evaluation. Utilizes knowledge from NUTR 226

NUTR 292 Independent Study: 1-3 Credits (1-3 Other)

PREREQUISITE: Consent of instructor and approval of department head. (F, Sp, Su) Directed research and study on an individual basis Repeatable up to 6 credits.

NUTR 301 Food and Culture: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS, NUTR 226, and NUTR 227. (F) Food is an essential component of life and livelihoods everywhere. However, food patterns vary across the globe. Students will develop an awareness of personal biases and the need for cultural humility by examining and experiencing the concurrent influences of food and culture over the course of history Repeatable up to 3 credits.

NUTR 321 Nutrition in the Life Cycle: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS. (F, Sp) Nutritional needs and health concerns during different stages of life: preconception, pregnancy, lactation, infancy, preschool years, middle childhood, pre-adolescence, adolescence, adulthood, and late maturity

NUTR 322 Food Service System Management: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS, NUTR 226, and NUTR 227 or consent of instructor. (F) Principles of quantity food procurement, production, and presentation. Emphasizes food safety and sanitation principles and organizational management for food and nutrition professionals

NUTR 351 Nutrition and Society: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS. (F, Sp, Su) Social and cultural, economic, policy, and environmental factors in the community influencing nutritional status, and public health, techniques to assess community nutritional needs, and methodology for designing, implementing, and evaluating community nutrition programs, practices, and policies. Major service-learning project completed for a public or private agency

NUTR 395 Pract: Quantity Foods Production and Management: 3 Credits (1 Lec, 2 Lab)

PREREQUISITE: NUTR 221CS, NUTR 226, NUTR 227, and NUTR 322 or consent of instructor. (Sp) Hands-on food lab experience in culinary purchasing, production, analysis, and presentation activities. Applied food safety and sanitation principles. Application of organizational management theories in culinary businesses

NUTR 401 Nutrition Assessment/Counsel: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS, NUTR 321 junior standing or consent of instructor. (Sp) Theory and application of the nutritional assessment process: Anthropometric, biochemical, clinical, dietary, and medical charting. Utilizes computer dietary analysis and other laboratory procedures. Principles and application of counseling skills

NUTR 411 Nutrition for Sports and Exercise: 4 Credits (3 Lec, 1 Lab)

PREREQUISITE: KIN 221 or BIOH 201, and NUTR 221CS and junior standing. (F) Nutrition for physical activity, sport performance, health and fitness. Nutritional needs are discussed for endurance, strength, low-body weight, team sport athletes and other physically active people. Energy balance and weight management examined

NUTR 421 Macronutrient Metabolism: 3 Credits (3 Lec)

PREREQUISITE: NUTR 221CS, CHMY 123 or BCH 380, BIOH 211. (F) Digestion, absorption, and metabolism of macronutrients, metabolic pathways utilizing carbohydrates, fats, and proteins, and changes that occur in metabolism under different physiological conditions

NUTR 422 Micronutrient Metabolism: 3 Credits (3 Lec)

PREREQUISITE: CHMY 123 or BCH 380, BIOH 211, NUTR 221CS. (Sp) Digestion, absorption, and metabolism of micronutrients, metabolic roles of vitamins and minerals, and changes that occur in metabolism under different physiological conditions

NUTR 425 Medical Nutrition Therapy I: 3 Credits (3 Lec)

PREREQUISITE: NUTR 401 or consent of instructor. (F) Examination of metabolic and physiological changes in selected conditions and implications for medical nutrition therapy. Extensive case studies utilized to facilitate critical thinking for appropriate nutritional care

NUTR 426 Medical Nutrition Therapy II: 3 Credits (3 Lec)

PREREQUISITE: NUTR 401, NUTR 425, or consent of instructor. (Sp) Application of principles of clinical nutrition. Further development of critical thinking skills and application of medical nutrition therapy concepts in the nutrition care process format

NUTR 430 Food Processing: 3 Credits (3 Lec)

PREREQUISITE: NUTR 226, NUTR 227, or consent of instructor. (Sp) Food processing is critical to the safety, quality, and innovation of food products. From home-based food business to global food corporations, utilizing proper processing techniques for food production is crucial to the success of food enterprise. This course focuses on the impacts of thermal and non-thermal processing treatments on the microbiological, nutritional, and sensory qualities of food products. Required and recommended processing practices to meet the safety regulations and quality standards are discussed for the different food product categories. Students will be able to formulate a food processing plan to address the safety and quality goals of a chosen food product

NUTR 435 Experimental Foods: 3 Credits (2 Lec, 1 Lab)

PREREQUISITE: NUTR 226 and NUTR 227 or consent of instructor. (F) This course introduces the principles and procedures of food experiments including sensory, shelf life, and proximate analyses following current food regulations and standards

NUTR 490R Undergraduate Research: 1-6 Credits (1-6 Other)

PREREQUISITE: Consent of instructor Directed undergraduate research/creative activity which may culminate in a research paper, journal article, or undergraduate thesis. (F, Sp, Su) Course will address responsible conduct of research. May be repeated
Repeatable up to 12 credits.

NUTR 491 Special Topics: 1-4 Credits (1-4 Lec)

PREREQUISITE: Course prerequisites as determined for each offering and consent of instructor. Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number
Repeatable up to 12 credits.

NUTR 492 Independent Study: 1-3 Credits (1-3 Other)

PREREQUISITE: Junior standing, consent of instructor, and approval of department head. (F, Sp) Directed research and study on an individual basis
Repeatable up to 6 credits.

NUTR 494 Seminar: 1 Credits (1 Other)

PREREQUISITE: Senior standing. (F) Preparation of an application for a dietetic internship or graduate program. Emphasizes resume and portfolio development, ethics, professionalism, and interviewing

NUTR 496 Practicum Food Product Development: 3 Credits (1 Lec, 2 Lab)

PREREQUISITE: NUTR 430 or NUTR 435 or consent of instructor. (F) Course discusses the principles and benchmarks of food product development, from ideation, formulation, cost analysis, sensory and texture test, scaling-up test, safety, and marketing planning, to processing, labeling, packaging, and launch

NUTR 498 Internship: 2-12 Credits (2-12 Other)

PREREQUISITE: Consent of internship director in academic area. () Offered as needed based on student demand. An individualized professional assignment arranged for specific discipline. Some academic areas will offer specific sections in sequence for their students. All students must receive department permission prior to registration, and register for a senior seminar in their major area

NUTR 499 Capstone for Dietetics: 1 Credits (1 Other)

PREREQUISITE: NUTR 425
COREQUISITE: NUTR 426 or consent of instructor. (Sp) Provides opportunity for experiential learning to practice and enhance pre-professional skills in communication and critical thinking. Creation of a nutrition education resource and practice in assessment, interviewing and smart goal development to promote behavior change and enhance wellness

NUTR 511 Exercise Metabolism and Health: 3 Credits (3 Lec)

(Sp) Recommended prerequisite areas of knowledge: • Basic nutrition • Anatomy/physiology • Cell biology • Exercise physiology • Energy pathways (CP, glycolysis, oxidative phosphorylation). This course examines how cellular demands influence the need for carbohydrates, amino acids, lipids, vitamins, and minerals, how the availability of these nutrients influences adaptations, and the influence of these adaptations on exercise performance and disease risk.

NUTR 520 Advanced Diet and Disease Systems: 3 Credits (3 Lec)

PREREQUISITE: Graduate standing in Dietetic Systems MS and Internship program. (Su) Community and population nutrition health theories as related to nutrition-based intervention, education and program planning toward a goal of disease prevention and health promotion

NUTR 521 Advanced Macronutrient Metabolism: 3 Credits (3 Lec)

(F) Digestion, absorption, and metabolism of macronutrients, metabolic pathways utilizing carbohydrates, fats, and proteins, and changes that occur in metabolism under different physiological conditions.

NUTR 524 Adolescent Nutrition: 2 Credits (2 Lec)

PREREQUISITE: Graduate standing. (Sp) Course participants explore nutrition science relevant to adolescent health, gain exposure to quality education resources and investigate wellness issues and strategies

NUTR 525 Advanced Medical Nutrition Therapy: 3 Credits (3 Lec)

PREREQUISITE: Graduate Standing in the MS in Dietetic Systems Leadership. (Sp) Integrate the theories and principles of medical nutrition therapy into clinical practice. Students will apply critical thinking and knowledge of medical nutrition therapy to a variety of different disease states and patient populations including oncology, gastrointestinal disorders, liver disease, critical care, and pediatrics

NUTR 526 Nutrition for Fitness/Performance: 3 Credits (3 Lec)

(Sp) Examine energy metabolism and physical activity. Use nutrition strategies to meet the energy, power output, and nutrient demands of exercise, and athletic performance. Examine behavioral relationships that affect fitness and health, including disordered eating and the female athlete triad, evaluation of nutrition information and dietary supplements, with extensive use of internet resources. Offered Spring.

NUTR 527 Critical Thinking, Research & Evidence Informed Nutrition Practice: 3 Credits (3 Lec)

PREREQUISITE: Graduate standing in MS in Dietetic Systems Leadership program. (F) Evaluate and review research on the etiology, consequences and treatment of obesity

NUTR 528 Advanced Food Systems Management in Dietetics: 3 Credits (3 Lec)

PREREQUISITE: Graduate standing. (F) Applied understanding of advanced topics in food service management in a variety of settings. Course will provide a foundation in more complex topics including human resources, management and leadership

NUTR 530 Food Innovation & Entrepreneurship: 3 Credits (3 Lec)

PREREQUISITE: Graduate standing. (Su) Course will also include an introduction to small business marketing and management

NUTR 560 Food Systems Leadership for Nutrition Professionals: 3 Credits (1 Lec, 2 Lab)

PREREQUISITE: Graduate standing
COREQUISITE: NUTR 598. (F) This course prepares MDI students to understand the relationship between food, agriculture and health systems. Students will gain literacy in systems thinking through examination of food system topics through farm to fork projects, discussions, readings, field trips and farm work

NUTR 575 Research/Prof Paper/Project: 1-3 Credits (1-3 Other)

PREREQUISITE: Graduate standing. (F, Sp, Su) A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee
Repeatable up to 6 credits.

NUTR 588 Professional Development: 1-3 Credits (1-3 Lec)

PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, and consent of instructor. (Su) Courses offered on a one-time basis to fulfill professional development needs of in-service educators. A specific focus is given to each course which is appropriately subtitled
Repeatable up to 3 credits.

NUTR 589 Graduate Consultation: 1-3 Credits (1-3 Other)

PREREQUISITE: Graduate standing in nutrition major. (F, Su) This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help
Repeatable up to 3 credits.

NUTR 590 Master's Thesis: 1-10 Credits (1-10 Other)

PREREQUISITE: Master's standing. (F, Su) Directed graduate research/
creative activity
Repeatable up to 99 credits.

NUTR 591 Special Topics: 1-4 Credits (1-4 Lec)

PREREQUISITE: Upper division courses and others as determined for
each offering. Courses not offered in any curriculum for which there is a
particular one time need, or given on a trial basis to determine acceptability
and demand before requesting a regular course number
Repeatable up to 12 credits.

NUTR 592 Independent Study: 1-3 Credits (1-3 Other)

PREREQUISITE: Graduate standing, consent of instructor. (F, Sp, Su)
Directed research and study on an individual basis
Repeatable up to 6 credits.

NUTR 594 Seminar: 1 Credits (1 Other)

PREREQUISITE: Graduate standing or seniors by petition. (Su) Course
prerequisites as determined for each offering. Topics offered at the graduate
level that are not covered in regular courses. Students participate in
preparing and presenting discussion material
Repeatable up to 4 credits.

NUTR 598 Internship: 2-12 Credits (2-12 Other)

PREREQUISITE: Graduate standing, consent of instructor. (F, Sp, Su)
Individualized supervised practice assignments arranged with agencies,
businesses or other organizations to provide guided experience in the field
Repeatable up to 12 credits.