NTR-Nutrition Science

NTR 500. Communications in Nutrition. 1 Hour.
This course is designed to enable students to communicate effectively with the public via blogs, media interviews, traditional written education materials, social media, and websites. Emphasis in all of these areas of communication will be on translating scientific evidence into accurate and engaging communications for consumers and the press.

NTR 501. RDN Certification Review. 0 Hours.
Sponsored workshop to prepare students for the Registered Dietitian Nutritionist examination.

NTR 521. Nutrition Assessment and the Nutrition Care Process. 3 Hours.
Introduction to the Nutrition Care Process (NCP), a systematic approach to providing high-quality nutrition care. The NCP provides a framework for critical thinking and decision making. Gain factual knowledge, learn to apply course material through case study application, and explore fundamental principles in medical nutrition related content areas.
Prerequisites: NTR 222 [Min Grade: C]

NTR 565. Advanced Nutritional Physiology and Integrative Metabolism. 3 Hours.
Advanced instruction on the integrative physiologic and metabolic responses to differing diets and dietary practices.

NTR 589. Internship Practicum. 1-12 Hour.
Clinical experience in food service management and nutritional care in facilities throughout community; specific objectives vary depending on rotation.

NTR 600. Principles of Food Science Operations and Menu Planning. 3 Hours.
Practice Management and Use of Resources: strategic application of principles of management and systems in the provision of food services to individuals and organizations.

NTR 601. Advanced Medical Nutrition. 3 Hours.
Roles of nutrition in relationship to health; prevention of disease and correction of disorders due to nutritional imbalance throughout life cycle; disease states and their nutritional management; biochemical, clinical, and dietary assessment of nutritional status; drug-nutrient interactions; inborn errors of metabolism.

NTR 604. Principles and Practice of Nutrition Support. 3 Hours.
Critical review of current methods of providing nutrition support for critically ill patients; theory integrated with clinical practice.

NTR 609. Applied Nutrition for Physical Activity and Disease Prevention. 3 Hours.
Theoretical and applied aspects of nutrition for sport performance and health promotion. Provides practical application of evidence-based analysis of topics to promote consumer health.

NTR 611. Advanced Food System and Resource Management. 3 Hours.
Management systems and their application to hospital food service; legal aspects of dietetic practice; quality assurance, departmental planning, and organization.

NTR 617. Herbs and Spices in Nutrition Sciences. 3 Hours.
Herbs and spices have been components of human diets via culinary traditions for thousands of years. This course will focus on approximately two dozen popular herbs and spices, considering bioactive ingredients and proposed mechanisms of action for nutrition- and health-focused outcomes. Evidence-based evaluations of health and wellness claims will be considered from the published literature, alongside the purported dietary and culinary benefits of herb and spice use.

NTR 618. Nutritional Biochemistry. 6 Hours.
Metabolism and function of nutrients; biosynthesis of vitamins and their cofactors; human requirements for energy, amino acids, minerals, and vitamins; current human nutritional problems.

NTR 621. Applied Statistics to Nutrition Sciences I. 3 Hours.
This course has been designed to introduce students to statistical methods and approaches used to test hypotheses in the field of nutrition. Students will learn statistical tools that will equip them to analyze data, and will apply their knowledge to data sets addressing scientific questions related to nutrition and the application of nutrition to health.

NTR 623. Applied Statistics to Nutrition Sciences II. 3 Hours.
This course has been designed to expose students to advanced statistical methods and approaches used to test hypotheses in the field of nutrition. Students will learn statistical tools that will include longitudinal data, clustering methods, and treatment of covariates in statistical analyses. The course will equip students to analyze data, and will apply their knowledge to data sets addressing scientific questions related to nutrition and the application of nutrition to health.
Prerequisites: NTR 621 [Min Grade: C]

NTR 625. Human Nutr Through the Life Cy. 3 Hours.
This course will examine the role of nutrition and dietary factors on the growth, development, and maintenance of health throughout the human life cycle. Nutritional guidelines/recommendations, special nutritional needs, physiology, and nutritional health concerns for each stage of the human lifecycle beginning with preconception and continuing throughout adulthood and aging will be addressed.

NTR 626. Consumer Issues in Nutrition. 3 Hours.
This course examines contemporary nutritional issues that affect consumers. Focus will be on the translation of science to public policy, consumer communications, and food choices.

NTR 630. Maternal Child Hlth Ped Nutrit. 4 Hours.
Public health and interdisciplinary approach to pediatric and maternal and child nutrition; translation of evidence based approaches to pediatric nutrition, including prevention and intervention.

NTR 631. Community Interventions for Healthy Lifestyles. 3 Hours.
Community-based strategies for promoting healthy lifestyles through improved eating and physical activity behaviors; emphasis on childhood obesity prevention and intervention; integration of the Life Course model.

NTR 632. Nutrition Counseling and Education. 4 Hours.
Theoretical and applied aspects of nutrition counseling and education. Practical application of counseling strategies to promote consumer health.

NTR 636. Scientific Methods. 3 Hours.
Approaches for nutrition investigation; design of experiments and research proposals.

NTR 637. Applied Research in Nutrition Sciences. 3 Hours.
Introduction to research methodologies and application of research related to nutrition and dietetics using practical application of qualitative and quantitative research and evaluation methods in community and health-related settings.
Prerequisites: NTR 621 [Min Grade: C]

NTR 645. Advanced Nutrition for Healthcare Professionals. 1 Hour.
This course will provide students advanced instruction on nutrition, including the physiologic and metabolic responses to specific diets, to incorporate evidence-based lifestyle modifications into clinical practice.

NTR 650. Body Composition and Energy Metabolism. 3 Hours.
Methods of measurement of body composition and energy expenditure and their relationship to health and disease.

NTR 666. Nutrition, Mindfulness, and Wellness. 3 Hours.
Exploration of relationship between dietary practices and health; guide to design of individualized health lifestyle practices, including meditation and mindfulness.

NTR 670. Practicum in Wellness. 3 Hours.
This course is designed to give students practical experiences to meet nutrition and wellness needs in a variety of populations. Students will complete wellness activities in campus dining, corporate, healthcare, and school sites. These activities will include developing wellness messages for social media, investigating new wellness and nutrition trends, and practicing counseling/ health coaching skills leading to health behavior change.

NTR 671. Practicum in Community Nutrition. 3 Hours.
Students will apply strategies to meet nutrition needs outside of the acute-care setting with emphasis on cultural competency, effective communication, nutrition education, public policy, program planning and food assistance programs.

NTR 672. Practicum in Food Systems Management. 3 Hours.
This practicum provides supervised experiences that will help students explore issues and topics to develop the skills necessary to manage foodservice systems, including production, inventory control, sanitation and quality management. Emphasis on applications to healthcare facilities.

NTR 673. Practicum in Medical Nutrition Therapy I. 3 Hours.
Students will round with the dietitian to gain competence in the Nutrition Care Process in long-term, in-patient, and out-patient hospital or clinic setting. Students also prepare and present case study reports to become skillful in investigating and discussing these disease states and conditions in professional settings. Students use a clinical log to track the populations they are serving and the disease states and conditions they are treating during this practicum.

NTR 674. Practicum in Medical Nutrition Therapy II. 4 Hours.
Students will work, under the supervision of registered dietitians, in local hospitals (acute care, out-patient) and long-term medical care facilities to assess, diagnose, chart and plan Medical Nutrition Therapy. Students will practice the skills developed in Practicum in Medical Nutrition Therapy I.

NTR 675. Practicum in Dietetic Administration. 4 Hours.
This practicum focuses on the application of management and leadership principles and techniques specific to the provision of nutrition services in foodservice. Students practice the care and operation of equipment, sanitation audits, HACCP Guidelines, budget planning and customer service.

NTR 676. Advanced Practicum in Dietetics. 4 Hours.
This course provides the opportunity for the student to work independently under the supervision of a registered dietitian. The student will demonstrate competence at an entry-level before beginning this experience.

NTR 680. Journal Club in Clinical Nutrition. 1 Hour.
Review, discussion, and critique of current literature in clinical nutrition.

NTR 690. Seminar. 2 Hours.
Review of current literature and research in nutrition.

NTR 691. Clinical Practicum: Nutritional Aspects of Children with Intellectual Disabilities. 1-6 Hour.
Evaluation of nutritional status, feeding behavior, and food habits of children with intellectual disabilities; nutritional care; functioning in interdisciplinary team; field trips to agencies serving children with intellectual disabilities.

NTR 692. Clinical Practicum: Community Nutrition. 1-6 Hour.
Clinical experiences in health care delivery systems with nutrition components; methods of determining nutritional status of most vulnerable groups; nutrition education of community; current community nutrition issues; food fads, weight control, food misinformation, and nutrition legislation.

NTR 693. Clinical Practicum: Pediatric Nutrition. 1-6 Hour.
Clinical experiences in normal growth patterns in children; nutritional needs in health and disease; medical problems of pediatric patients; diet therapy.

NTR 694. Clinical Practicum: General Clinical Research. 1-6 Hour.
Clinical experiences in a multi-disciplinary research facility involving human subjects.

NTR 695. Special Topics in Nutrition. 1-4 Hour.
Exploration of current issues in Nutrition Sciences.

NTR 696. Clinical Practicum: Nutr Support of Pediatric Clin. 1-6 Hour.
Observation of and participation in interdisciplinary team delivery of health care to pediatric patients with pulmonary disease; variety of settings utilized, including neonatal intensive care, medical/surgical pediatric acute care, and pediatric pulmonary clinics; emphasis on optimizing nutritional support to pediatric patients with pulmonary dysfunction.

NTR 697. Clinical Practicum: Nutrition Support Service. 3-6 Hours.
Observation of and participation in interdisciplinary team delivery of nutrition support to critically ill hospitalized patients and ambulatory patients.

NTR 698. Master's Level Non-Thesis Research. 1-6 Hour.
Project designed to meet student's particular interest in nutrition and dietetic field; review of current literature; limited research and paper required.

NTR 699. Master's Level Thesis Research. 1-9 Hour.
Projects designed individually to meet student's particular interest within nutrition and dietetic field; emphasis on research approach to problem solving, including review of current literature in topic area.
Prerequisites: GAC M

NTR 701. Advanced Medical Nutrition. 3 Hours.
Role of nutrition and its relationship to health, prevention of disease, and correction of disorders due to nutritional imbalance throughout the life cycle. Emphasis on nutrition assessment and current research, including biochemical clinical, dietary, and anthropometric measurements.

NTR 718. Nutritional Biochemistry. 6 Hours.
Metabolism and function of nutrients; biosynthesis of vitamins and their cofactors; human requirements for energy, amino acids, minerals, and vitamins; current human nutritional problems.

NTR 723. Assessment of Nutritional Status in Populations. 3 Hours.
Theoretical and hands-on instruction in methods of assessment of dietary intakes, body composition, and biochemical levels of macro- and micronutrients. Proper techniques for collecting measurements and review of computer software packages that specialize in analysis of specific measurements.

NTR 728. Cancer Prevention and Control Seminar. 1-3 Hour.
Presentations related to cancer prevention and control and participation on cancer research review boards. Required for pre- and post-doctoral fellows in the NCI-supported R25 Cancer Prevention and Control Training Program.

NTR 733. Laboratory Instruments and Methods in Nutrition Research. 1-5 Hour.
Instruction in theory and use of selected laboratory instruments (selected according to student's need related to research project).

NTR 736. Scientific Methods. 3 Hours.
This course is designed to provide the students with the knowledge necessary to plan, design, and undertake research on topics related to nutrition science.

NTR 747. Molecular Biology and Nutrition Sciences. 3 Hours.
Overview of molecular biology applications in nutrition science research. Examination of basic molecular biology techniques, current usage of molecular biology to solve nutrition problems, and application of biotechnology to study disorders with nutritional component.

NTR 750. Body Composition and Energy Metabolism. 3 Hours.
Methods of measurement of body composition and energy expenditure and their relationship to health and disease.

NTR 755. Teaching Practicum in Nutrition Sciences. 3 Hours.
Students will apply the concepts that they learned from the graduate teaching certificate program of UAB Center for the Integration of Research, Teaching and Learning (CIRTL) to formal teaching instruction. Students will serve as co-teachers, working with a Nutrition Science faculty course-master to participate in teaching activities of a specified course.

NTR 760. Foundations of Nutrition Research. 1 Hour.
Practice key concepts and skills necessary to conduct research. Topics will include review and synthesis of the literature, formulating a research question, evaluation of data, effective written and verbal communication.

NTR 761. Enhancing Research Productivity Through Intensive Writing. 3 Hours.
Instruction and practice in techniques for developing publishable manuscripts, including establishing consistent and sustainable writing habits, improving the quality of writing, seeking and incorporating feedback from mentors and co-authors, identifying appropriate statistical approaches for research questions, and responding to reviewers/editors comments for revision or rejection.

NTR 769. Race, Nutrition and Health. 3 Hours.
Introduction to the identification, measurement and exploration of etiological factors that underlie racial/ethnical disparities in health outcomes.

NTR 778. Special Topics in Nutrition Sciences. 1-5 Hour.
Special topics in Nutrition Sciences.

NTR 779. Obesity in the 21st Century. 3 Hours.
General overview of the facts and research findings underlying the understanding of obesity, its co morbidities, and its consequences in the population.

NTR 788. Advanced Nutrition Seminar. 1 Hour.

NTR 798. Doctoral Level Non-Dissertation Research. 1-15 Hour.

NTR 799. Doctoral Level Dissertation Research. 1-15 Hour.
Prerequisites: GAC Z