

# DOCTOR OF CLINICAL NUTRITION

## Courses

### **NUTR 7005 Foundations of Nutrition Through the Lifecycle 3 Credits**

This course will begin with an introduction to the fundamentals of human nutrition including a broad overview of carbohydrates, lipids, proteins, vitamins and minerals. Analysis and application of the physiological, biological and biochemical basis for differences in nutritional requirements throughout the stages of the lifecycle including pregnancy, infancy, childhood, adolescence, adulthood, and older adulthood will be discussed.

### **NUTR 7010 Food Science 4 Credits**

This course introduces the principles of food science and food safety. Students will understand government and regulatory regulations, and the changes that occur in vitamins, minerals, antioxidants, and other food components during food preparation. The lab portion will teach culinary techniques and introduce a variety of recipes, emphasizing information learned in lecture. Students will learn general principles of choosing, storing, and preparing different categories of food.

### **NUTR 7015 Nutrition Assessment and Diagnosis 3 Credits**

This course provides an introduction to the standardized language for the Nutrition Care Process in various disease states and conditions. It will include interviewing, anthropometrics, laboratory data, nutrition diagnosis, intervention and monitoring and evaluation. It will include an introduction to the nutrition focused physical assessment.

### **NUTR 7016 Lifecycle Nutrition 3 Credits**

An advanced course that addresses the variation in nutritional needs at specific stages of the human life cycle: pregnancy, lactation, infancy, childhood, adolescence, adulthood and elders. The content will address the most common nutritional concerns, their relationship to food choices and health status and strategies to enhance wellbeing at each stage of the lifecycle. Diet modification to meet particular nutritional needs will be covered.

### **NUTR 7020 Community Nutrition 3 Credits**

This course provides a comprehensive review of program planning, policies, resources, and nutrition issues specific to community nutrition. Additionally, the resources available to providing and implementing nutrition programs for various populations and how to assess those interventions will be addressed.

### **NUTR 7025 Nutritional Biochemistry 3 Credits**

This course emphasizes the metabolism and biochemistry of carbohydrates, protein, and fat (energy containing nutrients). The course covers chemical structures, digestion, absorption, distribution, and metabolism of the nutrients, including information on the metabolic pathways.

### **NUTR 7030 Nutrition Pharmacology 3 Credits**

This course focuses on the principles of pharmacology, with a focus on the impact of food and nutrients on the action and effectiveness of medications and complementary and alternative medicine. The course covers basic pharmacology principles, drug classifications, and the role of medications to treat disease and improve quality of life.

### **NUTR 7035 Advanced Nutrition Counseling 3 Credits**

This course provides students with the knowledge and skills needed to communicate with individuals, groups, and the public. Students will practice and evaluate communication skills in counseling individuals.

### **NUTR 7040 Nutrition Metabolism 3 Credits**

This course has the student come to an understanding of the physiological and metabolic processes involved in processing nutrients. This ranges from gaining understanding of the organs involved in digestion, to the biochemical processes that transform nutrients to be utilized by cells. Furthermore the course demonstrates the regulation of nutrient processing and aberrations of the process in metabolic diseases.

### **NUTR 7045 Food Systems Management 3 Credits**

This course will focus on food safety and regulations as well as human resource management, institutional menu development, budgeting, finance, and food service equipment, layout, and design.

### **NUTR 7050 Nutrition for Prevention and Treatment of Chronic Disease 3 Credits**

This course addresses chronic disease states and the dietary modifications necessary to meet the needs of the body during pathological conditions. Includes oral, as well as other enteral and parenteral feeding routes. Application of the nutrition care process to assess, diagnosis, plan interventions, monitor, and evaluate patient outcomes.

### **NUTR 7051 Sports Nutrition 3 Credits**

The course will provide an overview of sports nutrition basics, nutrition assessment and energy balance in athletes. It will focus on specific evidence-based practices on various sports nutrition topics such as, carbohydrate requirements to fuel sport, ergogenic aids, and hydration. The course will include the sports nutrition needs of various populations, such as children, adolescent athletes, college age athletes, elite and vegetarian athletes.

### **NUTR 7055 Nutrition and Global Health 3 Credits**

This course provides information on the major health challenges faced globally. In addition, determinants of health and disease, emerging health priorities, impact of poverty, health systems, and global initiatives for disease prevention and health promotion will be explored.

### **NUTR 7060 Advanced Clinical Nutrition 3 Credits**

This course addresses the dietary modifications necessary to meet the needs of the body during pathological conditions while identifying complex metabolic and physiological interrelationships. In addition, advanced nutritional concepts in healthcare will be addressed. Application of the nutrition care process will be used in assessing, diagnosing, planning interventions, monitoring, and evaluating patient outcomes.

### **NUTR 7061 Pediatric/Geriatric Nutrition 3 Credits**

Students will be introduced to the biological changes of the body during the development and aging process, and nutritional impacts on age-associated diseases. There will be special emphasis on medical nutrition therapy for select pediatric diseases and chronic illnesses and the impact of environment on nutritional intake. Students will understand the dietary practices and nutritional needs specific to pediatric and older individuals, and practice skills needed to develop and lead interventions with both populations. This course is designed to introduce students to the knowledge and skills needed by dietitians to promote successful aging and minimize disease impact in the first and second half of life.

**NUTR 7951 Community Nutrition Practicum****1 Credit**

Supervised experiential learning applying knowledge obtained in the Community Nutrition course. Practicum will include a participation in the daily activities in a community setting, acting in a staff relief position in a community nutrition setting, and completing culminating Program Planning and Evaluation Project in a community setting.

**NUTR 7952 Food Systems Practicum****2 Credits**

Supervised experiential learning applying knowledge obtained in the Food Systems Management course. Practicum will include a culminating project demonstrating planning, marketing, healthy menu development, teaching, budgetary needs, cost control, quality assurance, and evaluation.

**NUTR 7953 Nutrition Practicum I****3-4 Credits**

Supervised experiential learning applying prior knowledge in a clinical setting. Practicum will include working with patients with various disease states. Students will work under the supervision of Registered Dietitians providing Medical Nutrition Therapy for various disease states using the Nutrition Care Process.

**NUTR 7954 Advanced Practice Residency****3-4 Credits**

This course will prepare students for more advanced clinical scenarios. The course will focus on nutrition support and more complex disease states and critical illness. Supervised experiential learning will primarily encompass critical care where students will work under the supervision of Registered Dietitians providing Medical Nutrition Therapy. In addition to critical care, students will have the option to locate a specialty rotation within their area of interest.

**NUTR 7961 DCN Project Seminar I****1 Credit**

TDCN Project Seminar I provides the foundation for development of the scholarly DCN Project. This seminar gives students the opportunity to define their proposed DCN project aimed at improving the healthcare delivery system or patient outcomes. This project could be a quality improvement project, a practice change project, a program evaluation, a policy development/improvement project, or another project with a focus on outcomes and practice improvement. Project plans are developed to include the identification of an appropriate practice problem, the patient/system/population outcomes that the project is intended to affect, the proposed project site, and the proposed steps for implementation and outcome assessment. Students will continue to work with their DCN Advisor in developing the project.

**NUTR 7962 DCN Project Seminar II****1-2 Credits**

DCN Project Seminar II is designed to provide students with the opportunity to synthesize knowledge at the doctoral level. The seminar reflects integration of all coursework and experiential learning in order to demonstrate the students' integration and utilization of evidence-based practice, finance, management, quality improvement, leadership, ethics, and reflective practice in the management of individual patients, populations, and healthcare systems. Students will collect data and/or provide intervention for their doctoral project and develop an abstract and poster for professional presentation.

**NUTR 7963 DCN Project Seminar III****2 Credits**

**Prerequisite:** NUTR 7962.

DCN Project Seminar III is designed to provide students with the opportunity to finalize and defend their DCN Project in a professional setting. Students will develop a final publication-ready manuscript. In addition, this seminar will prepare students for graduation and the Commission on Dietetic Registration (CDR) credentialing exam through various interactive studying methods and simulation. CNUT students only.

**NUTR 7990 Independent Study****1-3 Credits**

Through individually designed projects or activities, students work closely with a faculty member to study a specific area in depth. Enrollment by permission only.