

# Nutrition and Dietetics

M.S. in Nutrition (<https://catalog.und.edu/graduateacademicinformation/departmentalcoursesprograms/nutritiondietetics/nutd-ms/>)

Certificate in Health and Wellness Coaching (<https://catalog.und.edu/graduateacademicinformation/departmentalcoursesprograms/nutritiondietetics/cert-health-wellness-coaching/>)

## **N&D 541. Biochemical and Physiological Basis of Nutrition: Macronutrients. 3 Credits.**

Integration of the molecular, cellular, and physiologic aspects of macronutrient and energy metabolism in humans. Dietary energy, carbohydrates, fiber, lipids, proteins, nutritional interactions and metabolic consequences with emphasis on recent advances in macronutrient nutrition are explored. Prerequisite: Undergraduate or graduate biochemistry and physiology. F, even years.

## **N&D 542. Biochemical and Physiological Basis of Nutrition: Micronutrients. 3 Credits.**

Integration of the molecular, cellular, and physiologic aspects of vitamin and mineral metabolism in humans. Functions, biological availability, hormonal regulation, requirements, metabolic consequences of deficiencies or excesses, and interrelations with other nutrients with emphasis on current topics related to vitamins, minerals and phytochemicals. Prerequisite: Undergraduate or graduate biochemistry and physiology. S, odd years.

## **N&D 543. Advanced Topics in Lifecycle Nutrition. 3 Credits.**

The course focuses on current and evolving research relating to the physiological changes and nutritional needs throughout the lifecycle. The course will explore nutrition-related conditions impacting a particular stage of the lifecycle, with an emphasis on nutrition strategies to prevent and manage these conditions. On demand.

## **N&D 544. Obesity and Eating Disorders. 3 Credits.**

The course examines the obesity epidemic, eating disorders, and prevention and treatment approaches at multiple levels: individual, social, environmental, and policy. Obesity, anorexia nervosa, bulimia nervosa, binge eating, and disordered eating will be discussed and evidence-based interventions explored with emphasis on role of the nutritionist as part of an inter-professional care team. Prerequisite: Admission to the program. On demand.

## **N&D 545. Nutrition in Disease Prevention and Wellness. 3 Credits.**

An exploration of prevention and wellness models specifically designed to decrease the mortality and morbidity of chronic disease in the United States population. The course focuses on the involvement of optimal nutrition and health behaviors in prevention of disease and promotion of wellbeing that encompasses a whole person perspective. Prerequisite: Admission to the program. SS.

## **N&D 550. Nutrition Education and Program Planning. 3 Credits.**

Theoretical, research and applied aspects of adult nutrition education. Curriculum design models, instructional tools, program planning and evaluation of education interventions will be discussed in the context of chronic disease prevention. Effective teaching strategies and procedural models for designing effective nutrition education programs targeting the general public will be presented. Prerequisite: Permission of Instructor. S, odd years.

## **N&D 553. Nutritional Health Advocacy and Policy. 3 Credits.**

An analysis of U.S. public policy processes in relation to food and nutrition, with emphasis on the role of the nutrition professional in influencing the public policy process and advocating for food policies. 3 graduate credit hours. Prerequisite: Admission to the program. On demand.

## **N&D 554. Nutrigenomics. 3 Credits.**

This course explores the interactions between nutritional factors, genomics, and health. The course also explores the potential roles of the nutrition professional in developing personalized dietary prescriptions to optimize health, reduce disease risk, or improve management of chronic disease. Prerequisite: Undergraduate courses in biochemistry or advanced nutrition and human physiology. On demand.

## **N&D 560. Nutrition and Health Coaching. 3 Credits.**

This course develops and strengthens advanced nutrition coaching skills and nutrition counseling interventions using the evidence-based motivational interviewing style. The focus will be on attending to client-centered orientation and building therapeutic relationships through engaged communication skills. Core competencies explored with an emphasis on enhancing practical skill development through video demonstrations, real play, case studies, creative reflection, practice sessions with instructor feedback, and facilitated group discussions. Prerequisite: Admission into the program. F.

## **N&D 561. Clinical Nutrition Care I. 3 Credits.**

This course establishes the important relationship between human disease and nutrition. Students will learn how to apply the nutrition care process consisting of nutrition assessment, interpretation, and intervention to personal health by utilizing clinical labs, anthropometric data and body composition, dietary assessment tools, and lifestyle tracking. It is designed to provide an evidence-based understanding of the relationship of food nutrients in the treatment of disease. Students will learn how to interpret nutrition assessment and manage the nutritional treatment of the following conditions: cardiovascular disease, pulmonary disease, pancreatic disorders, and hepatobiliary disease. Prerequisite: Admission to the program and Human Physiology. F, odd years.

## **N&D 562. Clinical Nutrition Care II. 3 Credits.**

This course establishes the important relationship between human disease and nutrition. Students will learn how to apply the nutrition care process consisting science to pathophysiology of nutrition assessment, interpretation, and intervention to personal health. Students will learn how to interpret nutrition assessment and manage the nutritional treatment of the following conditions: diabetes, blood disorders, kidney disease, cancer, infectious disease, neurological conditions, and bone health. Prerequisite: Admission to the program, N&D 561, and a course in Human Physiology. S, even years.

## **N&D 563. Entrepreneurship in Nutrition and Dietetics. 3 Credits.**

This course examines entrepreneurial options in nutrition and dietetics and focuses on developing business qualities and skills that are impactful in nutrition careers. Prerequisite: Admission to the program. On demand.

## **N&D 564. Integrative and Functional Nutrition. 3 Credits.**

The integrative and functional nutrition course will provide students with the framework and foundations of following an integrative and functional nutrition (IFN) approach. Students will learn about common IFN assessment including chemical labs, hormonal regulation, and the gut microbiome. This course will cover concepts in inflammation, metabolic dysfunction, endocrine disorders, autoimmune conditions, nutrition for mental and cognitive health, detoxification pathways, and more. Prerequisite: Admission to the program, a course in Human Physiology, or instructor permission. S, even years.

## **N&D 590. Directed Studies in Nutrition. 1-4 Credits.**

Designed to meet the needs of an individual student or a small group of graduate students. Course content will be based on the interests and needs of the student(s) in consultation with the faculty member's area of specialization. Prerequisite: Consent of the instructor. Repeatable to 4.00 credits.

## **N&D 591. Seminar in Nutrition. 1 Credit.**

Discussion of current research and evidence-based practice in nutrition. Practice of oral presentation of scientific data in a professional setting. On demand.

## **N&D 594. Research Methods in Nutrition. 3 Credits.**

The course examines the scientific foundation of nutrition research and critiques nutrition research. Students develop a research proposal. Prerequisite: Graduate statistics and admission into the program. S, even years.

## **N&D 596. Nutrition Education and Counseling Practicum. 1-2 Credits.**

A block of supervised practice experiences working with diverse populations in a nutrition clinic focusing on the development of advanced nutrition education counseling skills. Students will develop both group and individualized client-centered counseling approaches. Practicum is taken near completion of graduate coursework. Prerequisite: N&D 560, a minimum of 20 credits in graduate program, and declared specialization of nutrition education and counseling. Repeatable to 4.00 credits. F,S,SS.

**N&D 598. Dietetics Practicum. 2-4 Credits.**

The graduate practicum provides an opportunity for you to advance your skills and experience working with professionals and clients in an assigned area of dietetics. You will be required to utilize critical thinking, clinical inquiry, informatics, and literature to demonstrate problem solving skills in practice.

The expected outcomes of the practicum include the development and refinement of competencies required of an entry-level dietitian. The practicum is a culmination of the knowledge, skills and abilities you have developed in your student career in the dietetic program. It is a time of gaining experience, building confidence, and testing your abilities as a future dietitian. Minimum 90 contact hours completed onsite at assigned facility/agency. Prerequisite: Enrollment in the Coordinated Program in Dietetics and School of Graduate Studies; consent of program director. Repeatable to 4.00 credits. S.

**N&D 996. Continuing Enrollment. 1-8 Credits.**

Continuing Enrollment. Prerequisite or Corequisite: Graduate Program Enrollment. Repeatable to 9.00 credits. On demand.

**N&D 997. Independent Study. 1-2 Credits.**

Designed to meet the needs of an individual student or a small group of graduate students. Course content will be based on the interest and needs of the student(s) in consultation with the faculty member's area of specialization. Prerequisite: Consent of Instructor. On demand.

**N&D 998. Thesis. 1-4 Credits.**

A scholarly research project written under the mentorship of the student's advisor. Credit is given upon successful meeting of thesis requirements for the master's degree. Prerequisite: Consent of the instructor. Repeatable to 4.00 credits. On demand.

## Undergraduate Courses for Graduate Credit

**N&D 325. Nutrition Through the Life Cycle. 3 Credits.**

Optimal growth and development throughout the lifespan requires proper nutrition that begins prior to conception. This course examines nutritional needs of individuals prior to conception, during pregnancy and lactation, and throughout childhood, adolescence, and all of adulthood. The course will study the nutrient needs for each phase of the life cycle. Students will learn about the influence of nutrition on growth and development, as well as the physiological and developmental basis for food choice and dietary recommendations. Prerequisite: N&D 240. F.

**N&D 350. Medical Nutrition Therapy I. 3 Credits.**

An evidence-based study and application of the nutrition care process. This includes nutritional assessment techniques, pathophysiology in disease, and medical nutrition therapy for common medical conditions. Prerequisite: N&D 441. Corequisite: N&D 450. F.

**N&D 380. Food Service Production and Management. 3 Credits.**

Introduces students to the many facets of a quality and quantity food service department. Students will apply food preparation, food science, and management principles to the food service environment. Prerequisite: N&D 260. Prerequisite or Corequisite: MGMT 300. S.

**N&D 450. Medical Nutrition Therapy II. 3 Credits.**

An advanced level of evidence-based study and application of the nutrition care process. This includes pathophysiology in disease and medical nutrition therapy for medical conditions and comorbidities. Prerequisite: N&D 441. Corequisite: N&D 350. F.