

# DEPARTMENT OF NUTRITION

## *College of Health Sciences*

222 Sturzebecker Health Sciences Center  
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Department of Nutrition (<http://www.wcupa.edu/nutritionandDietetics>)

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## Program of Study

The Bachelor of Science in Nutrition prepares students for careers in dietetics, which include community nutrition, food service management, and clinical nutrition. The program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). Students who complete the program meet the didactic requirements of ACEND but must complete an ACEND-accredited supervised practice following graduation to be eligible to take the registration examination for dietitians. Those who complete the registered dietitian (R.D.) examination successfully are recognized as registered dietitians. Faculty advisors assist students in applying for supervised practices and pursuing other postgraduate avenues.

## Programs

### Majors in Nutrition

- B.S. in Nutrition - Dietetics Concentration (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-dietetics-concentration>)
  - B.S. in Nutrition - Dietetics Concentration to M.S. in Community Nutrition Accelerated Program (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-dietetics-concentration>)
- B.S. in Nutrition - Food Management and Sustainable Food Systems Concentration (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-food-management-sustainable-food-systems-concentration>)
  - B.S. in Nutrition - Food Management and Sustainable Food Systems Concentration to M.S. in Community Nutrition Accelerated Program (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-food-management-sustainable-food-systems-concentration>)
- B.S. in Nutrition - Lifestyle Nutrition Concentration (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-lifestyle-nutrition-concentration>)
  - B.S. in Nutrition - Lifestyle Nutrition Concentration to M.S. in Community Nutrition Accelerated Program (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-bs-lifestyle-nutrition-concentration>)

### Minors in Nutrition

- Nutrition (<http://catalog.wcupa.edu/undergraduate/health-sciences/nutrition/nutrition-minor>)

### Graduate Opportunities

See the graduate catalog for more information on the Nutrition programs (<http://catalog.wcupa.edu/graduate/health-sciences/nutrition>).

## Policies

- See undergraduate admissions information. (<http://catalog.wcupa.edu/general-information/admissions-enrollment/undergraduate-admissions>)
- See academic policies. (<http://catalog.wcupa.edu/undergraduate/academic-policies-procedures>)

All undergraduate students are held to the academic policies and procedures outlined in the undergraduate catalog. Students are encouraged to review departmental handbooks for program tips, suggested course sequences, and explanations of procedures. When applicable, additional policies for specific department programs may be listed below.

## Accelerated Program Policy

Refer to the Accelerated Programs page (<http://catalog.wcupa.edu/undergraduate/accelerated-programs>) for more information.

## Faculty

### Professors

Jeffrey E. Harris ([jharris@wcupa.edu](mailto:jharris@wcupa.edu)) (1983)  
B.A., University of California, San Diego; M.P.H., D.H.Sc., Loma Linda University

Janet Lacey ([jlacey@wcupa.edu](mailto:jlacey@wcupa.edu)) (2000)  
B.S., Simmons College; M.S., M.Ed., University of Massachusetts; Dr.P.H., University of North Carolina

### Associate Professors

Mary Beth Gilboy ([mgilboy@wcupa.edu](mailto:mgilboy@wcupa.edu)) (2007)  
B.S., Marywood University; M.P.H., University of North Carolina; Ph.D., Temple University

Christine Karpinski ([ckarpinski@wcupa.edu](mailto:ckarpinski@wcupa.edu)) (2010)  
Chairperson, Nutrition  
B.S., West Chester University; M.A., Immaculata University; Ph.D., Rutgers University

Sandra Walz ([swalz@wcupa.edu](mailto:swalz@wcupa.edu)) (1997)  
B.S., M.S., North Dakota State University; Ph.D., Kansas State University

### Assistant Professors

Joanne Christaldi ([jchristald@wcupa.edu](mailto:jchristald@wcupa.edu)) (2013)  
B.S., College of Saint Elizabeth; M.S., University of Delaware; Ph.D., University of Georgia

Patricia G. Davidson ([pdavidson@wcupa.edu](mailto:pdavidson@wcupa.edu)) (2013)  
B.S. Southern Illinois University; M.S., Virginia Polytechnic Institute and State University; D.C.N., Rutgers University

Dara Dirhan ([ddirhan@wcupa.edu](mailto:ddirhan@wcupa.edu)) (2016)  
B.S., M.P.H., West Chester University; Ed.D., Drexel University

Amir Golmohamadi ([agolmohama@wcupa.edu](mailto:agolmohama@wcupa.edu)) (2016)  
B.S., University of Tehran; M.S., Isfahan University of Technology; Ph.D., University of Idaho

Julie A. Henstenburg ([jhenstenbu@wcupa.edu](mailto:jhenstenbu@wcupa.edu)) (2017)  
B.S., Pennsylvania State University; M.S., Cornell University

Michael Holik ([mholik@wcupa.edu](mailto:mholik@wcupa.edu)) (2017)  
B.S., Missouri State University; M.S., University of Central Missouri; Ed.D., Lindenwood University

Kimberly Johnson ([kjohnson4@wcupa.edu](mailto:kjohnson4@wcupa.edu)) (2016)  
B.S., Cornell University; M.S., Ph.D., Syracuse University

Lynn Monahan-Couch ([lmonahan@wcupa.edu](mailto:lmonahan@wcupa.edu)) (2000)  
B.S., University of California, Berkeley; M.P.H., West Chester University; D.C.N., Rutgers University

Alessandra R. Sarcona ([asarcona@wcupa.edu](mailto:asarcona@wcupa.edu)) (2016)  
B.S., East Carolina University; M.S., New York University; Ed.D., Long Island University

Regina Subach ([rsubach@wcupa.edu](mailto:rsubach@wcupa.edu)) (2016)  
B.S., M.A., Immaculata University; Ed.D., Capella University

## Courses

### NTD

#### **NTD 199. Transfer Credit Electives. 1-15 Credits.**

Transfer Electives.

Typically offered in Fall, Spring & Summer.

Repeatable for Credit.

#### **NTD 200. Nutrition and Culture. 3 Credits.**

Students will increase awareness of the connection between health outcomes, diet and nutrition, and socio-cultural influences. Course studies will lay a foundation for understanding why people eat the foods that they do. A bio-cultural framework is applied to examine how individual dietary habits, choices, and nutritional health outcomes are influenced by social structure, historic patterns and events, and cultural beliefs and ideology. Students explore food ways, food scripts, health beliefs and practices, demographic characteristics, and population health across diverse communities within the United States. The course also employs a critical analysis of macro-structural inequalities, societal stresses, and cultural norms that alter access and availability to healthy foods and disparately undermine the nutritional health of some populations.

Gen Ed Attribute: Diversity Requirement.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

#### **NTD 203. The Dietetic Profession. 1 Credit.**

This is an introductory course for nutrition and dietetics majors to orient them to the profession of dietetics and the nutrition and dietetics curriculum. Topics such as West Chester University academic policies, the dietetics curriculum, careers in dietetics, post-secondary options, professional ethics, designing a professional portfolio, career mentoring, and volunteer and paid experiences relevant to the profession will be covered.

Typically offered in Fall & Spring.

#### **NTD 205. Principles of food Selection and Preparation. 3 Credits.**

A nutritionally based study of the basic principles of food selection and preparation with an emphasis on food safety. Course includes a comparative study and integration of convenience food and traditionally prepared food, enhanced by an experiential lab component .

Typically offered in Fall, Spring & Summer.

#### **NTD 277. Sustainable Food Systems. 3 Credits.**

The primary objective of this course, team taught by an anthropologist and a registered dietitian, is to examine the interrelationship of nutrition ecology, anthropology and the political economic underpinnings of sustainable food systems.

Gen Ed Attribute: Interdisciplinary Requirement.

Typically offered in Spring.

Cross listed courses ANT 277, NTD 277.

#### **NTD 300. Nutrition Pedagogy. 3 Credits.**

This course provides the knowledge and skills necessary to develop and teach K-12 nutrition education lessons and curricula.

Typically offered in Spring.

#### **NTD 301. Consumer Nutrition. 3 Credits.**

Consumer approach to the roles foods and nutrition play in improving the quality of our lives, socially, physically, mentally, and emotionally.

Typically offered in Fall & Spring.

#### **NTD 303. Introductory Principles Human Nutrition. 3 Credits.**

This course introduces students to the biochemical, physiological, and microbiological basics of human nutrition. Topics include dietary guidelines; digestion, absorption, metabolism, and use of carbohydrates, lipids, and proteins; food sources and functions of vitamins and minerals; and the relationship between nutrition and health.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

#### **NTD 304. Global Nutrition. 3 Credits.**

This course is designed to examine the nature and scope of major nutritional issues and problems throughout the world, with an emphasis on developing countries. It includes consideration of specific nutrient deficiencies, as well as nutrition-related aspects of infectious and chronic disease. The role of food availability, food supply distribution and world food production in relation to nutrition and health will be discussed in the context of socioeconomic development and current economic policies and realities.

Typically offered in Fall & Spring.

#### **NTD 305. Vegetarian Nutrition. 3 Credits.**

This course will apply basic human nutrition principles to plant-based dietary approaches, addressing both the health-promoting aspects of vegetarianism and concerns about nutritional adequacy at all stages of the life cycle. A variety of vegetarian food preparation methods will be demonstrated and students will participate in meal planning as well as taste testing recipes.

Pre / Co requisites: NTD 305 requires a prerequisite of NTD 303.

Typically offered in Fall & Spring.

#### **NTD 309. Nutrition Throughout the Lifecycle. 3 Credits.**

A study of nutritional needs and dietary concerns of people from conception to old age.

Pre / Co requisites: NTD 309 requires prerequisite of NTD 303.

Typically offered in Fall & Spring.

#### **NTD 310. Nutrition Research. 3 Credits.**

This course focuses on the process of research and statistical analysis and interpretation as it relates to nutrition and dietetics. Topics such as the foundation and ethics of research, research questions and hypotheses, research designs, statistical analysis and interpretation, evidence analysis, systematic reviews, and evidence based practice will be addressed. Practical projects will be assigned, such as article analysis, a small research project, and data analysis using SPSS. Competence in reading, understanding, and analyzing research articles is the main goal of the course.

Pre / Co requisites: NTD 310 requires prerequisite of MAT 121 with a grade of C or better; and NTD 303 with a C or better.

Typically offered in Fall & Spring.

#### **NTD 311. Current Topics in Dietetics. 2 Credits.**

This course addresses timely and current topics in dietetics in an evidence-based way. Different topics are covered as they have current relevancy.

Pre / Co requisites: NTD 311 requires a prerequisite of NTD 309.

Repeatable for Credit.

#### **NTD 315. Food - Mind - Spirit. 3 Credits.**

A study of the role of food and nutritional status in mental health, mood and memory, and overall well-being throughout the life cycle. Additional topics include nutrients and neurotransmission, appetite regulation and disordered eating, the gut-brain axis, and herbal supplements. Mindful eating, traditional food belief systems, and dietary practices of major religions are also reviewed.

Pre / Co requisites: NTD315 requires prerequisite of PSY100 and NTD303.

Typically offered in Fall & Spring.

#### **NTD 320. Strategies in Dietetics Education. 3 Credits.**

Practical study of theories of teaching and learning, health behavior change, program planning, and educational strategies as they relate to the field of dietetics. Presentation preparation and delivery will also be covered.

Pre / Co requisites: NTD 320 requires prerequisite of NTD 309.

Distance education offering may be available.

Typically offered in Fall & Spring.

#### **NTD 325. The Food Chain. 3 Credits.**

Students use ecological and systems-based theory to increase understandings of contemporary food systems, food landscapes, and nutrition challenges using the framework of sustainability. The course examines the chain of food production (supply chain), distribution, and consumption in complex conventional food systems, targeting post-harvest aspects of the food system, historical, and socio-cultural factors that drive human nutrition and food behavior. Students explore multiple levels of local and global food systems, including globalization and labor markets with a focus on practices that promote health, food security, and environmental sustainability within community food systems. Students also investigate alternatives to conventional food systems such as food cooperatives, community supported agriculture, agroecology, artisan farms, and organic food in the context of food management. Students will reflect and deepen their understanding of the role of businesses, consumers, and food and nutrition professionals in contemporary food systems, and apply what they learn to food, nutrition, and environmental challenges.

Typically offered in Fall & Spring.

#### **NTD 333. Nutrition: East Meets West. 3 Credits.**

This course explores the relationships among nutrition, body types, and well-being. Because each individual's journey toward optimum health is unique, the course takes a personalized and integrated food-is-medicine approach to wellness. Ancient eastern and modern western sciences, health promotion, and therapies are blended. Foods, herbs, spices, and affirmative ways of living to restore balance and harmony to the body are emphasized.

Typically offered in Fall, Spring & Summer.

**NTD 400. Clinical Nutrition Assessment. 3 Credits.**

The goal of this class is for the student to understand the profession and practice of nutrition and dietetics, nutrition and physical assessment and the nutrition care process. Classroom and simulated experiences in clinical issues, nutritional assessment, planning, implementing nutritional care, and documenting in medical records will be completed. Students will also be introduced to medical terminology and abbreviations. Nutritional assessment methods will be applied to evaluating nutritional status in the individual.

Pre / Co requisites: NTD 400 requires prerequisites of NTD 309, BIO 269, and CHE 310.

Typically offered in Fall & Spring.

**NTD 404. Nutrition and Disease Prevention. 3 Credits.**

This course is a required course in the "Lifestyle Nutrition" concentration. It examines nutrition screening and assessment techniques to understand the use of dietary, biochemical and anthropometric data related to health and disease prevention. The pathophysiology, etiology and prevention of certain medical conditions such as obesity, diabetes, gastrointestinal problems, cardiovascular disease, bone disease and cancer will be examined. Other topics examined include nutrients and medication interactions and dietary supplements.

Pre / Co requisites: NTD 404 requires a prerequisite of NTD 309.

Typically offered in Fall & Spring.

**NTD 408. Food Science. 3 Credits.**

A study of the chemical, physical, and biological characteristics of food and the effects of processing, storage, and preservation on the structure, composition, palatability, and nutritive value of food. Sensory evaluation techniques and application of the scientific method are integral to this course.

Pre / Co requisites: NTD 408 requires prerequisites of C or better in CHE 310 and NTD 205 and NTD 303.

Typically offered in Fall & Spring.

**NTD 409. Professional Skills in Dietetics. 3 Credits.**

A focus on the development of nutrition counseling and communication/media technology skills. An appreciation of multiculturalism will be promoted. A familiarization with dietetics-related professional organizations, graduate school opportunities, and dietetic internships will be provided. Assistance with the dietetic internship and graduate school application process will be given.

Pre / Co requisites: NTD 409 requires prerequisite NTD 309.

Gen Ed Attribute: Writing Emphasis.

Distance education offering may be available.

Typically offered in Fall.

**NTD 410. Quantity Food Production. 3 Credits.**

A basic course in quantity food production. Emphasis is placed on the essentials of operating a foodservice facility - menu planning, purchasing, storage, issuing, food production, service, distribution, quality control, and food safety.

Pre / Co requisites: NTD 410 requires a prerequisite of NTD 205.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

**NTD 411. Advanced Human Nutrition I. 3 Credits.**

In-depth examination of the digestion, transport, and metabolism of carbohydrates, lipids, and proteins. Special emphasis is placed on metabolic interrelationships and hormonal control of the three processes mentioned above.

Pre / Co requisites: NTD 411 requires prerequisites of a C or better in BIO 100, BIO 259 and BIO 269; and a C or better in CHE 230, CHE 310, and NTD 309.

Typically offered in Fall & Spring.

**NTD 412. Advanced Human Nutrition II. 3 Credits.**

In-depth examination of the digestion, transport, and metabolism of vitamins, minerals, and water. Special emphasis is placed on digestive and metabolic interrelationships and hormonal control.

Pre / Co requisites: NTD 412 requires a prerequisite or co-requisite of NTD 411.

Distance education offering may be available.

Typically offered in Fall & Spring.

**NTD 413. Medical Nutrition Therapy I. 3 Credits.**

The goal of NTD 413, Medical Nutrition Therapy I, is for the student to understand the nutrition care process as it applies to disease management, develop a variety of disease specific case studies, and the process for determining the appropriate disease or health condition specific nutrition intervention. Students are expected to integrate nutritional assessment information, drug-nutrient interaction data, disease pathophysiology, and Medical Nutrition Therapy principles to design nutrition care plans and applying disease specific medical terminology and abbreviations.

Pre / Co requisites: NTD 413 requires prerequisites of NTD 400 and NTD 412.

Typically offered in Fall.

**NTD 414. Medical Nutrition Therapy II. 3 Credits.**

The goal of NTD 414 Medical Nutrition Therapy II, is for the student to apply the nutrition care process and MNT principles to critical and acute disease management including fluid/electrolyte/acid-base balance, nutrition support, nutritional therapy in critical care, oncology, pulmonary diseases and muscular skeletal, immunological diseases. The student will develop a variety of disease specific case studies and nutrition interventions. Students are expected to integrate nutritional assessment information; drug-nutrient interaction data, disease pathophysiology, and Medical Nutrition Therapy principles to design nutrition care plan and apply medical terminology and abbreviations.

Pre / Co requisites: NTD 414 requires a prerequisite of NTD 413.

Typically offered in Spring.

**NTD 415. Community Nutrition. 3 Credits.**

A study of the community nutrition programs and services at all levels of development. Course covers nutrition program planning, implementation, and evaluation; socioeconomic and cultural context of programs and services; an examination of the political and legislative process as it relates to nutrition legislation; and the role of the community nutritionist.

Pre / Co requisites: NTD 415 requires a prerequisite of NTD 309.

Typically offered in Fall & Spring.

**NTD 416. Food Service and Nutrition Systems Management I. 3 Credits.**

A study of the organization and administration of foodservice systems and the functions and responsibilities specific to management: decision making, planning, organizing, and staffing. Management of human resources, food, materials, capital, facilities, and markets as related to various hospitality management systems will be examined.

Pre / Co requisites: NTD 416 requires prerequisite of NTD 410.

Distance education offering may be available.

Typically offered in Fall.

**NTD 417. Food Service and Nutrition Systems Management II. 3 Credits.**

A study of the organization and administration of foodservice and nutrition systems as well as the functions and responsibilities specific to management; leading, controlling operations, budgeting, and marketing. Management of human resources, food, materials, capital, facilities, and markets as related to various hospitality systems will be examined.

Pre / Co requisites: NTD 417 requires a prerequisite of NTD 410.

Distance education offering may be available.

Typically offered in Spring.

**NTD 420. Perspectives on Obesity. 3 Credits.**

This course explores the prevalence, origins, assessment, treatments, policy issues, and preventive strategies relative to obesity. The issue disordered eating is introduced, with a special emphasis on Binge Eating Disorder.

Pre / Co requisites: NTD 420 requires a prerequisite of NTD 303.

Distance education offering may be available.

Typically offered in Fall, Spring & Summer.

**NTD 422. Nutrition for Health, Fitness & Sport. 3 Credits.**

This course encompasses nutrition and its effects on health and athletic performance, including sound nutrition guidelines for optimal health and physical performance; energy needs and energy pathways as keys to physical activity; macro and micronutrients relative to health and physical performance; ergogenic aids; hydration; and body composition and weight management.

Pre / Co requisites: NTD 422 requires a prerequisite of NTD 303.

Typically offered in Fall, Spring & Summer.

**NTD 425. Entrepreneurial Sustainable Food and Nutrition Management. 3 Credits.**

The course applies entrepreneurial thinking to different foodservice and nutrition business models and how they innovate and take risks to introduce new products and services. With the triple bottom-line in mind, the course examines perspectives through social, environmental, and financial frameworks. Students will explore case studies to analyze the correlation between the food and nutrition business in society and the financial impact to the environment. Students will also learn ways sustainable entrepreneurship can minimize the strain on fossil fuels and natural resources, and social entrepreneurship can meet social challenges. Students will analyze the main characteristics of entrepreneurs, notably their ability to imagine changes that will impact the foodservice industry. This course will engage students through lectures, experiential learning opportunities, guest speakers, case studies, readings, individual, and group collaboration. Topics explored will include current trends in the marketplace, analyzing the industry employing the Gaps Model, creating business models, and products and service development. Students will also learn about and utilize Social Media as future entrepreneurs and managing sustainability. Students will include a Social Media component in their business plan.

Pre / Co requisites: NTD 425 requires prerequisites of MGT 200 and NTD 410.

Typically offered in Fall & Spring.

**NTD 426. Farm to Table Food Product Development. 3 Credits.**

This course combines laboratory experiments and lecture activities to apply the principles of food safety and food preservation to add value to, and preserve, fresh local food products. Students will gain an understanding of sustainable food production and food preservation techniques. They will learn how to apply these principles to safely preserve food by low-pressure canning, pressure canning, pickling, freezing, dehydration, and other traditional and novel techniques. Additionally, students will utilize their knowledge and skills to apply sustainability in developing food products for consumer acceptability, regulatory compliance, acceptable sensory characteristics, nutritional qualities, and marketability.

Pre / Co requisites: NTD 426 requires prerequisites of CHE 107 and NTD 205.

Typically offered in Fall & Spring.

**NTD 435. Nutrition Workshops. 3 Credits.**

Special workshops on contemporary nutrition and food service related problems and issues.

Topics announced at times of offering.

Typically offered in Fall, Spring & Summer.

Repeatable for Credit.

**NTD 444. Lifestyle Nutrition Practicum. 3 Credits.**

This course is a required course in the "Lifestyle Nutrition" concentration. It is a writing intensive capstone course and should be taken senior year. This course aims to provide students with the oral, written and technical skills necessary for effective client and public education. Specifically, practical experience in the classroom and in the field will help the student focus on improving skills in client interviewing and counseling, writing for the lay public, and in designing and delivering a presentation to an audience.

Pre / Co requisites: NTD 444 requires a prerequisite of NTD 309 and NTD 404.

Gen Ed Attribute: Writing Emphasis.

Typically offered in Fall & Spring.

**NTD 450. Field to Fork Events. 4 Credits.**

In this capstone course, students learn about food system issues with a focus on local food systems. Students engage with industry experts in sustainability, event planning, fundraising, urban farming, and marketing and advertising. The class works with two local organizations to plan a fundraising event: one that is a nonprofit organization that targets food system issues such as hunger and food insecurity; and another organization that is a local food producer (e.g., artisan farm in the Brandywine region). The event raises funds to address local food system issues while marketing and promoting local food products and local food distribution systems. Students learn elements of event planning, budgeting, organizing, human resource management, production management, and marketing. These food management skills are learned in the context of promoting values for local economies, community, fair food systems, sustainability, and the environment. Through experiential learning, students gain knowledge of planning, organizing, and executing a sustainable foods event.

Pre / Co requisites: NTD 450 requires prerequisites of NTD 325, NTD 416, MGT 200, and MKT 250.

Typically offered in Fall & Spring.

**NTD 455. Nutrition Assessment, Education and Service in Honduras. 3 Credits.**

This course offers an interprofessional service-learning approach to clinical screenings and assessments, client/community education, and health related service in communities in underdeveloped or developing countries. Students gain exposure to the cultures of communities in underdeveloped or developing countries, thus enhancing the students' cultural competence.

Pre / Co requisites: NTD 455 requires a prerequisite of NTD 303.

Consent: Permission of the Department required to add.

Typically offered in Fall & Spring.