

Biobehavioral Nutrition and Wellness

Program Director: Douglas “Doug” R Moellering, PhD, MS

The B.S. in Biobehavioral Nutrition and Wellness program curriculum prepares students for entry into the nutrition and wellness workforce in many types of organizations, including nutrition and healthcare, universities, hospitals, food and nutrition providers, insurance agencies, corporations, or for graduate and professional study in health professions, including further study in Nutrition Sciences, Dietitian Education track. Students go on to become health and wellness educators, medical or health services managers, and clinical research staff, to name just a few exciting careers, and find positions in a wide range of private and public industries. You will learn about nutrition and wellness in this program, including the biological processes and behaviors within the science of nutrition and nutrition's role in health, wellbeing, and disease prevention.

The UAB Nutrition Sciences Department has all resources you need to tailor your studies to the areas of nutrition and wellness that most interest you, including active clinical practices, research labs, and two NIH-funded interdisciplinary research centers – the UAB Nutrition and Obesity Research Center (NORC) and the UAB Diabetes Research Center (DRC). Our faculty have a wealth of expertise in nutrition-related areas, including lifecycle, metabolism, genetics, diabetes, obesity, cancer, aging, cardiometabolic disease, cardiovascular disease, personalized disease prevention, data analysis, and telehealth. If you would like to pursue a master's degree or PhD after graduation, you will be well prepared for any nutrition sciences or allied health program you choose.

Program Admission

The UAB Office of Undergraduate Admissions accepts applications to the Biobehavioral Nutrition and Wellness program at any time. Students may begin the program at the start of any full academic term. Information and the online application for freshman, transfer, returning, and non-traditional admissions is available at <https://www.uab.edu/students/admissions/apply>.

Students intending to enroll in the Biobehavioral Nutrition and Wellness program must meet all undergraduate admission and academic requirements for UAB and the School of Health Professions.

Entering freshmen are admitted directly to the Biobehavioral Nutrition and Wellness program through the UAB Office of Undergraduate Admissions. Admission to the program from high school requires graduation from an accredited high school with a grade point average (GPA) of 2.75 or higher on a 4.0 scale. Transfer admissions from another college or university and UAB students changing their declared major to Biobehavioral Nutrition and Wellness must have an overall GPA of 2.75 or higher and an institutional GPA of 2.75 or higher, if applicable.

Academic Requirements

The minimum overall and institutional GPA required for admission to the program (2.75) must be maintained for continued enrollment throughout the program. A student whose GPA falls below the minimum will be allowed two semesters to recover before dismissal from the major. A student who is dismissed from the Biobehavioral Nutrition and Wellness major in such a manner may reapply once the student has raised his

or her overall and institutional GPA to the program or track minimum. A letter grade of C or higher is required for each course in the program curriculum.

Course Requirements

The Biobehavioral Nutrition and Wellness degree requires a total of 123-125 semester hours.

| Requirements | Hours |
|---|-------|
| MA 106 Pre-Calculus Trigonometry (Or Higher) | 3 |
| EH 101 English Composition I | 3 |
| EH 102 English Composition II | 3 |
| CH 115 General Chemistry I | 3 |
| CH 116 General Chemistry I Laboratory | 1 |
| BY 123 Introductory Biology I | 4 |
| BY 123L Introductory Biology I Laboratory | 0 |
| PY 101 Introduction to Psychology | 3 |
| CH 117 General Chemistry II | 3 |
| CH 118 General Chemistry II Laboratory | 1 |
| CH 235 Organic Chemistry I | 3 |
| CH 236 Organic Chemistry I Laboratory | 1 |
| BY 261 Introduction to Microbiology | 4 |
| BY 261L Introduction to Microbiology Laboratory | 0 |
| BY 115 Human Anatomy | 4 |
| BY 116 Introductory Human Physiology | 4 |
| CHHS 141 Personal Health & Wellness | 3 |
| CMST 101 Public Speaking | 3 |
| Approved Human Behavior, Psychology, Sociology, or Anthropology Course (Choose 1 course from below) | 3 |
| PY 107 Psychology of Adjustment | |
| PY 305 Medical Psychology | |
| SW 315 Human Behavior and Social Environment | |
| PUH 204 Social and Behavioral Determinants of Health | |
| SOC 280 Introduction to Medical Sociology | |
| ANTH 319 Food and Culture | |
| HRP 101 Experience the University Transition | 3 |
| NTR 121 Well Being and You | 3 |
| NTR 201 Healthy People, Healthy Planet | 3 |
| NTR 222 Nutrition and Health | 3 |
| NTR 232 Lifecycle Nutrition | 3 |
| NTR 300 Nutrition Communication: From Science to Consumer | 3 |
| NTR 320 Nutrition and the Consumer | 3 |
| NTR 330 Nutrition and Metabolism | 3 |
| NTR 420 Nutritional Genetics | 3 |
| NTR 421 Nutrition Assessment and the Nutrition Care Process | 3 |
| NTR 433 Health and Wellness in the Information Age | 3 |
| NTR 444 Nutrition in Wellness and in Chronic Disease | 3 |
| NTR 450 Translational Research in Biobehavioral and Nutrition Science | 3 |
| NTR 490 Capstone Experience in Biobehavioral Nutrition and Wellness | 3 |
| Electives | 12-14 |

Contact Information

For more information about the Bachelor of Science in Biobehavioral Nutrition and Wellness, contact

Biobehavioral Nutrition and Wellness (BNW)

Department of Nutrition Sciences
 Telephone: (205) 934-2984
[BNW Program](#)

Bachelor of Science in Biobehavioral Nutrition & Wellness

| Requirements | Hours |
|---|------------|
| University Core Courses | |
| Area I: Written Communication | 6 |
| Area II: Humanities and Fine Arts | 12 |
| CMST 101 Public Speaking | |
| Area III: Natural Sciences and Mathematics | 11 |
| MA 106 Pre-Calculus Trigonometry | |
| CH 115 General Chemistry I & CH 116 and General Chemistry I Laboratory | |
| BY 123 Introductory Biology I & 123L and Introductory Biology I Laboratory | |
| Area IV: History, Social and Behavioral Sciences | 12 |
| PY 101 Introduction to Psychology | |
| Lower Level Support Courses (C or better required) | 29 |
| CH 117 General Chemistry II & CH 118 and General Chemistry II Laboratory | |
| CH 235 Organic Chemistry I & CH 236 and Organic Chemistry I Laboratory | |
| BY 261 Introduction to Microbiology & 261L and Introduction to Microbiology Laboratory | |
| BY 115 Human Anatomy | |
| BY 116 Introductory Human Physiology | |
| CHHS 141 Personal Health & Wellness | |
| Approved Statistics ¹ | |
| Approved Human Behavior, Psychology, Sociology, or Anthropology Course ² | |
| Major Courses | 39 |
| NTR 121 Well Being and You | |
| NTR 201 Healthy People, Healthy Planet | |
| NTR 222 Nutrition and Health | |
| NTR 232 Lifecycle Nutrition | |
| NTR 300 Nutrition Communication: From Science to Consumer | |
| NTR 320 Nutrition and the Consumer | |
| NTR 330 Nutrition and Metabolism | |
| NTR 420 Nutritional Genetics | |
| NTR 421 Nutrition Assessment and the Nutrition Care Process | |
| NTR 433 Health and Wellness in the Information Age | |
| NTR 444 Nutrition in Wellness and in Chronic Disease | |
| NTR 450 Translational Research in Biobehavioral and Nutrition Science | |
| NTR 490 Capstone Experience in Biobehavioral Nutrition and Wellness | |
| Total Hours | 109 |

¹ Choose one of the following: HCM 360, MA 180, PY 216, or QM 214 and QM 215

² Choose one of the following: PY 107, PY 305, SW 315, PUH 204, SOC 280, ANTH 319

Proposed Program of Study for a Major in Biobehavioral Nutrition and Wellness

| Freshman | | | |
|--|-----------|--|--------------|
| First Term | Hours | Second Term | Hours |
| EH 101 | | 3 EH 102 | 3 |
| MA 106 | | 3 BY 123 | 4 |
| CH 115 | | 3 BY 123L | 0 |
| CH 116 | | 1 NTR 201 | 3 |
| NTR 121 | | 3 PY 101 | 3 |
| HRP 101 | | 3 CH 117 | 3 |
| | | CH 118 | 1 |
| | 16 | | 17 |
| Sophomore | | | |
| First Term | Hours | Second Term | Hours |
| CH 235 | | 3 NTR 320 | 3 |
| CH 236 | | 1 NTR 330 | 3 |
| NTR 222 | | 3 BY 115 | 4 |
| Core Area II: Literature | | 3 Core Area II or Area IV (based on sequence) | 3 |
| Approved Human Behavior, Psychology, Sociology, or Anthropology Course | | 3 Core Area II or Area IV (based on sequence) | 3 |
| PY 305 | | | |
| Core Area II or Area IV (based on sequence) | 3 | | |
| PY 305 | | | |
| SW 315 | | | |
| PUH 204 | | | |
| SOC 280 | | | |
| ANTH 319 | | | |
| | 16 | | 16 |
| Junior | | | |
| First Term | Hours | Second Term | Hours |
| BY 116 | | 4 NTR 300 | 3 |
| NTR 232 | | 3 NTR 421 | 3 |
| CMST 101 | | 3 BY 261 | 4 |
| CHHS 141 | | 3 Core Curriculum Area IV - History ¹ | 3 |
| Approved Statistics Course | 3 | | |
| | 16 | | 13 |
| Senior | | | |
| First Term | Hours | Second Term | Hours |
| NTR 444 | | 3 NTR 490 | 3 |
| NTR 433 | | 3 NTR 450 | 3 |
| NTR 420 | | 3 Core Area II: Fine Art | 3 |
| Approved Physics or Electives | 7 | 7 Approved Physics or Electives | 6-7 |
| | 16 | | 15-16 |
| Total credit hours: 125-126 | | | |

¹ A six semester hour sequence in literature or history is required; if a second literature is chosen it will apply as three of the elective hours in Core Curriculum Area II: Humanities and Fine Art; if a second history

is chosen it will apply as three of the elective hours in Core Curriculum Area IV: Social and Behavioral Sciences

Minor in Nutrition Sciences

The Department of Nutrition Sciences offers a minor option for undergraduate students matriculating in programs in the School of Health Professions. Interested students from other schools may be admitted upon approval from the NTR minor program director. The Nutrition Sciences minor requires completion of 18 semester hours of course work, maintenance of a 2.5 GPA overall, and no grade lower than a C in minor courses.

| Requirements | Hours |
|---|-----------|
| NTR 222 Nutrition and Health | 3 |
| NTR 232 Lifecycle Nutrition | 3 |
| NTR 330 Nutrition and Metabolism | 3 |
| Choose 9 Hours of Elective Coursework From the List Below | 9 |
| NTR 300 Nutrition Communication: From Science to Consumer | |
| NTR 320 Nutrition and the Consumer | |
| NTR 420 Nutritional Genetics | |
| NTR 421 Nutrition Assessment and the Nutrition Care Process | |
| KIN 405 Sports Nutrition | |
| ANTH 319 Food and Culture | |
| HRP 415 Mentored Research in the Health Professions | |
| Approved Research Experience Course | |
| Total Hours | 18 |

Courses

NTR 121. Well Being and You. 3 Hours.

Exploration of social, environmental, and cultural influences on eating and activity habits; mindfulness and coping skills to improve health, well-being, and resilience. This course meets the Blazer Core Humans & Their Societies requirement with a flag in Wellness/Wellbeing.

NTR 201. Healthy People, Healthy Planet. 3 Hours.

Influence of individuals, community, government, and earth on mental, emotional, and physical well-being; design of community programs and interventions in a holistic ecological framework. This course meets Blazer Core Humans and their Societies with a flag in Wellness/Wellbeing.

NTR 220. Contemporary Issues in Nutrition. 3 Hours.

Contemporary Issues in Nutrition is designed for non-health professional majors and will be particularly beneficial to those in education, communications, and business fields of study.

NTR 222. Nutrition and Health. 3 Hours.

Introduction to principles of nutrition; essential nutrients and their relation to growth, maintenance, and optimal functioning of the body; dietary recommendations to promote wellness and prevent chronic disease.

NTR 225. Promoting Nutrition and Wellness for Healthy Communities. 3 Hours.

This course will introduce students to one of the most critical health issues in the US today – poor nutrition, unhealthy life styles and their consequences including the epidemic of obesity. Students will learn about the diverse range of individuals impacted by this issue and will discover the range of prevention, education and support services that are offered. This course will cover the following aspects of unhealthy lifestyles/poor nutrition: history and systemic causes, education and prevention, including policy and advocacy. The course is also designed to present a multicultural perspective on the issues and students will be encouraged to engage in service-learning in the field, read literature, listen to speakers and interact with individuals representing a range of ages, genders, ethnicities and socioeconomic status.

NTR 232. Lifecycle Nutrition. 3 Hours.

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, from preconception through adulthood and aging.

Prerequisites: NTR 222 [Min Grade: C]

NTR 300. Nutrition Communication: From Science to Consumer. 3 Hours.

Interpreting nutrition research, including study designs and statistics, to develop nutrition messages and education materials using various media.

Prerequisites: NTR 222 [Min Grade: C]

NTR 320. Nutrition and the Consumer. 3 Hours.

Contemporary nutrition topics that affect consumers, such as dietary supplements, food additives, food safety, food, genetically modified organisms in foods & integrative medicine. Techniques to communicate nutrition information to consumers.

Prerequisites: NTR 222 [Min Grade: C]

NTR 330. Nutrition and Metabolism. 3 Hours.

Metabolism and functions of nutrients after mixed meal intakes, including USDA MyPlate, low-carbohydrate or low-fat diets; biosynthesis of vitamins and co-factors and whole food sources; human requirements for energy, amino acids, minerals, and vitamins; food fortification; current human nutritional challenges and diseases.

Prerequisites: NTR 222 [Min Grade: C]

NTR 420. Nutritional Genetics. 3 Hours.

How behavioral practices, environmental influences, and genetic makeup interact to influence individual preferences and responses to foods. Models to incorporate the interaction of these factors in developing potential strategies to prevent disease and achieve better nutritional health.

NTR 421. 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: D]

NTR 433. Health and Wellness in the Information Age. 3 Hours.

Using technology and informatics skills to find, evaluate, and share accurate information to provide the best care to patients, clients, and the community.

Prerequisites: NTR 222 [Min Grade: C]

NTR 444. Nutrition in Wellness and in Chronic Disease. 3 Hours.

Mechanisms underlying chronic diseases; role of nutrition and other health behaviors in prevention and treatment.

Prerequisites: [NTR 330](#) [Min Grade: C]

NTR 450. Translational Research in Biobehavioral and Nutrition Science. 3 Hours.

Development of skills in accurately translating scientific evidence from basic through clinical research and implementation studies into actionable messages for the public.

Prerequisites: [NTR 222](#) [Min Grade: C]

NTR 475. Special Topics in Biobehavioral Nutrition and Wellness.

1-4 Hour.

Exploration of current issues in Biobehavioral Nutrition and Wellness.

NTR 490. Capstone Experience in Biobehavioral Nutrition and Wellness. 3 Hours.

Capstone experience integrating and applying the biobehavioral nutrition and wellness body of knowledge in a comprehensive group project.