



Minor in NUTRITIONAL SCIENCE



Minor in Nutritional Science

Program Description

The minor in Nutritional Science is designed for students who are interested in exploring the relationships between nutrition, exercise, and human health. The program will provide students with a strong foundation in the science of nutrition, including the roles of macronutrients and micronutrients in human physiology and metabolism.

Students in this program will learn about the guidelines and recommendations for optimal nutrition and physical activity, including those established by the American College of Sports Medicine (ACSM). The program will cover topics such as energy balance, weight management, nutrient timing, and the use of nutritional supplements in sports and exercise.

The minor in Nutritional Sciences will also cover the latest research in nutritional science and explore the application of nutrition principles to the prevention and treatment of chronic diseases, such as obesity, diabetes, and cardiovascular disease. Students will also learn about the role of nutrition in athletic performance and recovery, and will gain practical skills in dietary assessment, analysis, and planning.

Upon completion of the program, students will have a deep understanding of the science of nutrition and its relationship to human health and performance. Students will also be prepared to apply this knowledge in a variety of contexts, including sports nutrition counseling, fitness programming, and public health initiatives. This minor will provide a strong foundation for graduate study in exercise science, nutrition, or related fields.

PROGRAM GOALS

1. Develop an understanding of the science of nutrition: Students will gain a deep understanding of the principles of nutrition and their role in human physiology and metabolism, including the roles of macronutrients and micronutrients in human health and performance.
2. Apply the ACSM guidelines to nutrition and exercise: Students will learn to apply the latest ACSM guidelines to the design and implementation of nutrition and exercise programs for diverse populations, including athletes, individuals with chronic diseases, and the general population.
3. Evaluate the role of nutrition in chronic disease prevention and treatment: Students will explore the latest research on the role of nutrition in the prevention and treatment of chronic diseases, such as obesity, diabetes, and cardiovascular disease, and will learn to apply this knowledge to public health initiatives.
4. Develop practical skills in dietary assessment and analysis: Students will gain practical skills in the assessment, analysis, and planning of dietary intake, and will learn to use software programs and tools commonly used in the field.
5. Communicate effectively about nutrition: Students will learn to effectively communicate nutrition information to a variety of audiences, including athletes, coaches, healthcare providers, and the general public, and will gain practical experience in creating and delivering nutrition education programs.

COURSES

The minor in nutritional science requires 12 hours:

- [BIO 140 Introduction to the Principles of Nutrition](#)
- [BIO 330 Lifecycle Nutrition](#)
- [BIO 400 Nutritional Biochemistry and Metabolism](#)
- [BIO 295 Advanced Nutritional Assessment](#)

Course Descriptions

BIO 140 Introduction to the Principles of Nutrition: This course provides an overview of the science of nutrition, including the roles of macronutrients and micronutrients in human health and wellness. Students will learn about the latest ACSM guidelines for nutrition and exercise, and develop practical skills in dietary assessment and analysis.

BIO 330 Lifecycle Nutrition: This course focuses on the nutritional needs for development, growth, and normal functioning throughout the lifecycle. Course work will delve into the nutritional needs for pregnancy and lactation, infancy, adolescence, adulthood, and geriatric.

BIO 400 Nutritional Biochemistry and Metabolism: This course provides a detailed analysis of the biochemical pathways involved in nutrient metabolism. Students will learn about the role of macronutrients and micronutrients in human physiology, and variations in the requirements in response to stress.

BIO 295 Advanced Nutritional Assessment: This course provides advanced skills in the assessment and analysis of dietary intake. Students will learn about the latest software programs and tools used in the field of nutritional science, and develop skills in the interpretation and communication of dietary data.

PROGRAMMATIC OUTCOMES:

Students will develop the following outcomes:

1. Students will be able to apply principles of nutrition to optimize human health and wellness.
2. Students will be able to critically evaluate and apply ACSM guidelines for nutrition and exercise to diverse populations.
3. Students will be able to assess, analyze, and plan dietary intake, and apply this knowledge to the design of nutrition programs.
4. Students will be able to effectively communicate nutrition information to diverse audiences, including athletes, coaches, and the general public.
5. Students will be able to apply principles of nutrition to the prevention and treatment of chronic diseases, such as obesity, diabetes, and cardiovascular disease, and use this knowledge to develop effective public health initiatives.