

# EXERCISE PHYSIOLOGY (EXPH)

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## **EXPH 225. Introduction to Exercise Science. (3 Credits)**

This course involves understanding the realm of exercise science and the associated careers within exercise science. Students will discover career options ranging from exercise physiology, sport psychology, biomechanics, research, nutrition, graduate studies, medical school, and many more along with the necessary requirements, exams, and certifications to adequately prepare for the next step in a student's future vocation.

## **EXPH 442. Exercise Testing and Prescription. (4 Credits)**

This course will focus on the theoretical and applied knowledge base required to conduct safe and effective exercise tests and fitness evaluations for healthy and at risk populations. Students will be expected to design effective exercise programs based on the evaluative tests. Clinical exercise physiology, basic electrocardiography, cardiovascular medications and client/patient risk stratification is included in the course. Additional lab time required.

## **EXPH 460. Internship. (3-6 Credits)**

This course provides an opportunity for an upper level undergraduate student to gain valuable practical experience in an exercise physiology setting. This experience is aligned with the student's individual career or graduate study goals. The student will be able to demonstrate and apply the knowledge and skills they have learned in classroom and lab activities to a professional setting. Additionally, students are given the opportunity to network within their chosen profession. This internship is a dynamic program that will respond to change as warranted.

## **EXPH 470. Exercise Physiology. (4 Credits)**

This course involves the application of beginning and more advanced anatomical and physiological processes to human movement, physical performance and rehabilitation.

Prerequisite: BIO 191.

## **EXPH 471. Advanced Exercise Physiology. (4 Credits)**

This course is an in-depth look at the acute and chronic adaptations of the body to physical stress. Energy metabolism, cardiorespiratory physiology, endocrine physiology, and body composition analysis are some of the areas of emphasis in the course. Laboratory participation involving maximal oxygen consumption testing, body composition analysis, blood lactate analysis, spirometry, and submaximal aerobic capacity tests is expected of all students.

## **EXPH 475. Seminar in Exercise Physiology. (2 Credits)**

This course requires students to select and present research articles from current topics in Exercise Physiology. Students will analyze, evaluate and discuss the methodology of the selected research topics. The importance of the Institutional Review Board in conducting research will be covered as a preparation for the EXPH 495 Senior Seminar research project.

## **EXPH 480. Program Design and Application of Strength and Conditioning Principles. (3 Credits)**

This course will examine the various anatomical and physiological aspects associated with strength and conditioning. The students will have opportunities to analyze and design a strength and conditioning program for athletes from various sports or for individuals with special needs.

## **EXPH 494. Exercise and Chronic Disease. (3 Credits)**

This course is an examination of the characteristics, physiological responses and exercise-related adaptations in individuals with select chronic diseases. Emphasis will be on pathophysiology and clinical considerations including exercise limitations, responses, and adaptations for each disease state. This course is designed to assist the student in preparation for the American College of Sports Medicine Health Fitness Instructor, Clinical Exercise Specialist, and/or Registered Clinical Exercise Physiology exams should the student desire to take these exams at a later time. It will also provide necessary knowledge and critical thinking skills for an Exercise Physiology Internship.

## **EXPH 495. Senior Seminar. (3 Credits)**

This course allows for group investigation of a research topic providing students with the opportunity to gain practical research experience in study design as well as "hands-on" experience in conducting a research study from start to finish. Seminar work will include the evaluation of a research question, subject recruitment, data collection and analysis plus completion of an abstract, poster, and potentially a manuscript for presentation/publication.