

# EXERCISE SCIENCE (EXSC)

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## **EXSC 2100 Intro Phys Activity & Disease 3 Credits**

This course provides a foundation to physical activity research. Participants will survey literature related to regular physical activity on both long-term and short-term effects on health and chronic diseases

## **EXSC 2240 Intro to Athletic Training 4 Credits**

Introduction to the profession of athletic training via lectures, class discussions, small group activities, and hands-on training room practice. Study of the principles, practices, and techniques used by a certified athletic trainer in the prevention, management, and rehabilitation of athletic injuries.

### **Course Fee Required**

## **EXSC 3700 Strength and Conditioning 3 Credits**

This course offers students an introduction to scientific and practical foundations associated with strength and conditioning programs. The course content promotes the use of a structured scientific approach in the prescription of progressive resistance training and cardiorespiratory conditioning.

**Prerequisite(s):** BIOL 2251K or PHED 2603 with a grade of C or better.

## **EXSC 3800 Biomechanics 3 Credits**

This course introduces students to the study of neuromuscular and mechanical principles of motion related to the analysis of human movement.

**Prerequisite(s):** BIOL 2251K or PHED 2603 with a grade of C or better.

## **EXSC 4000 Exercise Physiology 3 Credits**

This class will cover the physiological mechanisms involved in the acute response to exercise, in particular, the muscular, circulatory, respiratory, and endocrine systems and chronic adaptations to training for each. The health benefits of physical activity, the relationship between exercise and weight loss/maintenance, aerobic and muscular strength prescription, and the role of nutrition, age, gender and environmental factors will also be discussed.

**Prerequisite(s):** BIOL 2251K or PHED 2603 with a grade of C or better.

## **EXSC 4202 Sports Nutrition 3 Credits**

This course covers the nutritional needs of individuals participating in exercise and sport. Topics include but are not limited to the dietary needs of the human body before, during and after various modalities and intensities of athletics in order to optimize performance.

**Prerequisite(s):** PHED 2202 or BIOL 2190 with a grade of C or better.

## **EXSC 4600 Exercise Testing & Prescriptio 3 Credits**

This course introduces students to methods utilized in creating exercise prescriptions and developing exercise programs. Emphasis is placed on developing and delivering safe and valid exercise prescriptions. This course also introduces student to proper exercise testing procedure and methods, while emphasizing safety.

**Prerequisite(s):** EXSC 3700 and EXSC 4000 with a grade of C or better.

## **EXSC 4850 Clinical Exercise Physiology 3 Credits**

This course is designed to address the clinical aspects and implications of exercise physiology principles for those with or at risk of developing cardiovascular, pulmonary or metabolic disease.

**Prerequisite(s):** EXSC 4000 with a grade of C or better.