

### **ES 4300: Physiology of Exercise and Aging**

#### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900 .*

This course provides an overview of exercise physiology and healthy aging. The course emphasizes special considerations during fitness assessment, exercise prescription, and health promotion for special populations including the older adult, children, adolescents, and females during pregnancy and the post-partum period.

### **ES 4400: Directed Study**

#### **1-15 Credit Hours**

*Prerequisite: 2.75 Institutional GPA, Exercise Science major, 60+ semester hours and permission of the department chair*

This course covers topics and seminars of an advanced nature external to regular course offerings.

### **ES 4490: Special Topics in Exercise Science**

#### **1-3 Credit Hours**

*Prerequisite: 2.75 Institutional GPA, Exercise Science major*

This course includes selected topics of interest to faculty and students not regularly offered by the Department of ESSM.

### **ES 4500: Physiology of Exercise II**

#### **3 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900. Corequisite: ES 4550*

This course examines the study of the physiological basis of training and factors limiting human performance. Students are introduced to concepts of neuromuscular function, hormonal control, environmental conditions and ergogenic aids as they relate to acute and chronic exercise.

### **ES 4550: Exercise Science Laboratory Techniques**

#### **1 Credit Hours**

*Prerequisite: Exercise Science major; ES 3900. Corequisite: ES 4500*

This course provides an introduction to laboratory techniques commonly used in the field of exercise science. The course includes an overview of ergometry, energy expenditure, blood pressure, cardiovascular, pulmonary, and musculoskeletal responses during exercise. The topics within the course include safe, legal, and ethical practices required when working in an exercise physiology laboratory.