

## EXERCISE AND SPORT SCIENCE (EXS)

### **EXS 102. Principles Of Anatomy And Kinesiology. 3 Credits.**

This course is intended to provide the student with a detailed overview of musculoskeletal structure and function and its application to a more complex analysis of human movement and skill. Introduction of concepts concerning tissue and organ system organization, basic biomechanics, and the nervous system and its relationship to the musculoskeletal systems will be studied. Identification and detailed palpation of the bones and muscles of the human skeleton will be correlated with joint and muscle function. Prerequisites: ENG 098, FYE 101, MAT 092, RDG 098, or placement. Fall.

### **EXS 103. Strength and Conditioning. 3 Credits.**

Through participation in lecture and lab, students will develop the skills and understanding of muscle physiology and its relationship to resistance training. The course will provide students with an understanding of required adaptations for proper training, correct form and technique. Prerequisites or Corequisites: BIO 203 or EXS 102 or PTA 104. Spring.

### **EXS 201. Exercise Science And Nutrition. 4 Credits.**

This course will explore the scientific dimensions of fitness and nutrition. The course will be aimed at the function of exercise on the skeletal muscles, the organs, and the systems of the body; the relationship of activity and fitness to health; as well as an overview of nutrition, energy balance, and weight control as it affects health. Prerequisites: BIO 152 or BIO 203 (or co-requisite). Fall.

### **EXS 203. Exercise Testing And Program Design. 4 Credits.**

This course introduces students to testing protocols for individuals and groups. Students will be instructed in various fitness programs for flexibility, strength, and cardiovascular exercises. Students will also learn weight management techniques, as well as safety aspects of fitness exercises. The principles of adherence and motivation as well as communication and teaching techniques will be discussed and evaluated. Students will develop an understanding of legal issues and business structures, as well as professional responsibility. Prerequisites: EXS 102 or PTA 104, EXS 201. Spring.

### **EXS 210. Externship. 2 Credits.**

This externship experience involves direct observation and interaction at selected facilities. Placements include fitness centers, wellness centers, physical therapy clinics and rehabilitation centers. Students obtain a basic knowledge and understanding of the practical aspects of the fitness industry through participation. One seminar hour and several hours of field experience per week are required. Prerequisites: EXS 102 and EXS 201. Spring.