Exercise Science Course Descriptions

EXSC102 -- Introduction to the Exercise Sciences 3 :3 :0

An overview of the foundation of exercise science and the professions in physical education and sport. The course is designed to enable the students to understand the exercise sciences as fields of academic study and programs as well as professional applications. In addition, this course enables students to discriminate among these contexts and relate them by applying relevant knowledge and appropriate theoretical perspectives. Prerequisites: MATH 020 with a grade of C or higher, and eligibility for enrollment in ENGL 101.

EXSC104 -- Exercise Measurement and Prescription 3 :3 :0

Teaches the student how to evaluate and prescribe exercise to a variable population. The course covers aspects of health related physical fitness components (cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, and body composition) and how to assess each of these components. The course also covers liability, certifications, and safety procedures that are relevant to the fitness industry. Restricted to students enrolled in the Exercise Science program. Prerequisites: MATH 020 with a grade of C or higher, and eligibility for enrollment in ENGL 101.

EXSC140 -- Methods of Instruction and Personal Training 3 :3 :0

Teaches exercise science students the fundamentals of the fitness industry. The course teaches the student all the facets of personal training including testing, evaluating, measurement, and teaching/demonstration of proper exercise techniques. The course enables the student to screen participants, carry out standardized fitness tests to evaluate the major components of fitness, and write appropriate prescriptions. Restricted to students enrolled in the Exercise Science program. Prerequisite: EXSC 102 with a grade of C or higher.

EXSC150 -- Exercise for Special Populations 3 :3 :0

The field of exercise science and how it affects people with special concerns relating to physical fitness. The course examines the physical state of these people as well as the proper exercise testing and prescription. The focus of the class is on metabolic disorders such as obesity, diabetes, and hypertension as well as coronary artery disease, stroke, osteoporosis, and physically challenged individuals. The course also examines the geriatric population as well as children. Restricted to students enrolled in the Exercise Science program. Prerequisite: EXSC 140 with a grade of C or higher.

EXSC202 -- Kinesiology 3 :3 :0

Introduces the student to the fundamentals of kinesiology. The course covers the anatomical and mechanical fundamentals of human motion. The course allows the student the opportunity to learn a systematic approach to the analysis of human motion. The course also provides the types of experiences that ask the student to apply anatomical and mechanical analysis to the learning and improvement of a broad spectrum of movement activities. Restricted to students enrolled in the Exercise Science program. Prerequisites: BIOL 121 and 122 with a grade of C or higher.

EXSC204 -- Exercise Physiology 4 :3 :2

A comprehensive study of the extent and nature of body variations as a result of physical exertion. The student receives laboratory experience dealing with the oxidation processes of the body in terms of the utilization of proteins, carbohydrates, and fats. The course includes an in-depth survey of neuromuscular, metabolic cardiorespiratory, and hormonal responses to acute exercise as well as the physiological adaptations to chronic exercise. Topics include thermoregulation, ergogenic aids, body composition, sport training, growth and development, and aging. Restricted to students enrolled in the Exercise Science program. Prerequisite: EXSC 202 with a grade of C or higher.