EXERCISE SCIENCE (EXSC)

EXSC 110 Introduction to Exercise Science 3 Semester Hours

Designed to introduce the student to exercise science as a field of study and as a career pathway, the course emphasizes the fundamental biophysical principles of human movement and their relationship to physical activity and fitness. This course meets General Education Distribution Area V.

EXSC 202 Methods & Teaching Analysis: Golf and Basketball 1 Semester Hour

This course is designed to introduce students to teaching theory, officiating, rules, offense/defense, and motor skills of golf and basketball. This course meets General Education Distribution Area V.

EXSC 203 Methods & Teaching Analysis: Football and Track/Field 1 Semester Hour

This course is designed to introduce students to teaching theory, officiating, rules, offense/defense, and motor skills of football, and track and field. This course meets General Education Distribution Area V.

EXSC 204 Methods & Teaching Analysis: Softball/ Baseball and Tennis 1 Semester Hour

This course is designed to introduce students to teaching theory, officiating, rules, offense/defense, and motor skills of softball/baseball and tennis. This course meets General Education Distribution Area V.

EXSC 205 Methods & Teaching Analysis: Soccer and Weightlifting 1 Semester Hour

This course is designed to introduce students to teaching theory, officiating, rules, offense/defense, and motor skills of soccer and proper weightlifting technique. This course meets General Education Distribution Area V.

EXSC 210 Foundations of Anatomy and Physiology 4 Semester Hours

This course will cover basic principles of Anatomy and Physiology of the body. It will include lectures and laboratory activities dealing with structures and functions of the body, with particular emphasis on the muscular and skeletal systems, as well as the cardiovascular, respiratory and nervous systems. It will include dissection, as well as computer labs. This course is not acceptable for programs requiring two semesters of Anatomy and Physiology. Those students should take BIO 210 and 220 Human Anatomy and Physiology I and II. Three hours of lecture and two hours of lab. Prerequisite: BIO 105, 120 or CHE 103.

EXSC 212 Sports Nutrition and Wellness Issues 3 Semester Hours

This course deals with current issues related to fitness, wellness, and sports performance from the standpoint of nutrition and lifestyle choices. This course meets General Education Distribution Area V.

EXSC 213 Principles of Nutrition 3 Semester Hours

This course is designed to introduce the student to the principles of nutrition as they apply to macronutrients. Economical, cultural, and psychological influences are considered. Nutrition over the human life span is examined. Offered fall semester odd numbered years. This course meets General Education Distribution Area V.

EXSC 240 Introduction to Theories and Techniques of Coaching 3 Semester Hours

Through various in-class and out-of-class experiences, students explore the integration of the practical and theoretical knowledge necessary for effective coaching, including administrative and legal issues.

EXSC 280 Adapted Physical Education 3 Semester Hours

This course will focus on the diverse challenges in physical education programs for special needs children. The students will be required to develop physical education concepts to fit the special need children into mainstream classes. The course will include observation and practical experience. Sophomore standing required.

EXSC 301 Applied Sport Physiology 4 Semester Hours

This course will cover the physiological mechanisms, including metabolism, cardiovascular, muscle, and respiratory physiology, underlying sport and exercise performance and prescription. Professionals in the area of physical education, coaching and other exercise professionals need to use scientifically based information to develop appropriate unit plans in PE, organize effective practice sessions for athletes, and prescribe safe and effective training programs. It will include lectures in principles of sport physiology and laboratory activities with an emphasis on application of physiological theory to sport and exercise. Three hours of lecture and two hours of lab. Prerequisite: EXSC 110 and EXSC 210.

EXSC 302 Kinesiology in Sport 3 Semester Hours

This course is designed to introduce the student to basic mechanical principles of human movement and be able to apply these principles to sport and exercise specific movements and human performance. Topics covered will include muscle and joint movement mechanics, kinetics, kinematics, levers, and joint injuries. Prerequisite: EXSC 110 and EXSC 210.

EXSC 310 Exercise Physiology 4 Semester Hours

The purpose of this course is to learn how the metabolism and the physiological systems, including the muscular, cardiovascular, and respiratory systems, integrate during acute and chronic exercise. Application will be made to disease prevention. Exercise physiological principles are reinforced and applied in a laboratory or field setting in which students will gain also an understanding of basic scientific data acquisition and processing. Three hours of lecture and two hours of lab. Prerequisite: EXSC 110, BIO 210, BIO 220 (each with grade of C - or better or permission of instructor). Offered fall semester. *Note*: Student may not receive credit for both EXSC 301, Applied Sport Physiology, and this course.

EXSC 311 Fitness Appraisal 3 Semester Hours

The theoretical bases are combined with practical experience to enhance understanding of fitness assessment. Students will gain competence in test administration and interpretation, screening, emergency procedures, and exercise prescription. Prerequisite: BIO 220. Offered spring semester.

EXSC 320 Biomechanics in Exercise and Sport 3 Semester Hours

This course is designed to introduce the student to mechanical principles of movement and apply those principles to specific motor activities common to exercise and sport. The course will cover basic: mechanical principles, kinetics and kinematics of movement, muscle action, joint movements and levers. Prerequisites: BIO 210 or permission of instructor. MAT 121 strongly recommended. Offered spring semester. *Note:* Students may not receive credit for both EXSC 302 Kinesiology in Sport and this course.

EXSC 340 Teaching/Coaching Methods 3 Semester Hours

Current theories and principles of learning, especially motor learning, are explored. Emphasis is on application in an activity-teaching and/or coaching setting for grades K-12. Prerequisite: EXSC 240 or EDU 205. Offered spring semester.

EXSC 410 Preparation for Senior Internship 1 Semester Hour

This course should be taken the semester prior to beginning the senior internship. It is designed to prepare the Exercise Science Major for said internship. Contracts, resumes, calendar and other details will be finalized and reporting procedures and visitation schedules (where appropriate) will be planned. Taking the Exercise Science content exam is a required component of the course. Prerequisite: Exercise Science Major with senior standing or permission of instructor. Offered fall and spring semesters.

EXSC 415 Senior Internship 6-14 Semester Hours

This course is designed to be a bridge between the end of a student's undergraduate education and the beginning of a career pathway. The student devotes an entire semester working and learning at an approved student-chosen site under the direct supervision of an on-site professional. Students will complete a final written paper and oral presentation at the completion of the internship. Prerequisite: EXSC Major, EXSC 410 and permission of instructor.