

UNDERGRADUATE COURSES OF STUDY

EXERCISE SCIENCE

EXSC 175.WELLNESS FOR LIFE

The course is designed to provide the student with a comprehensive introduction to the dynamics of lifetime wellness. The concepts of developing and maintaining a lifestyle of wellness will be presented and will include study units in nutrition, diet and weight control, stress management, sexually transmitted diseases, physical fitness, the cardiovascular system, disease risk factors, cancer, and personal wellness assessment/responsibility. Physical Education and Exercise Science majors must earn a "C" or better. Prohibited to students currently enrolled in or having earned credit in NURN 203. *Two credit hours.*

EXSC 180.MEDICAL TERMINOLOGY

This course is an introduction to the fundamentals of medical terminology including roots, prefixes, and suffixes with an emphasis on spelling, definition, and pronunciation. Cross-listed with BIOM 151 and NURS 111. *One credit hour.*

EXSC 199.ADULT CPR AND FIRST AID

This course provides the student with the knowledge and skills to administer adult CPR and first aid. Emphasis is placed on the American Red Cross Emergency Action Principles throughout the course. Successful completion will result in American Red Cross Adult CPR and First Aid Certification. Restricted to Physical Education and Exercise Science majors, or by instructor permission. *Two credit hours.*

EXSC 202.PERSONAL HEALTH AND HEALTH PROMOTION

Based on the concept of accepting self-responsibility, this course gives students practical information regarding the development of strategies to make informed health decisions that will positively affect their well-being throughout their lives. *Three credit hours.*

EXSC 210.ANATOMY AND PHYSIOLOGY OF HUMAN MOVEMENT

A critical study of the structures and function of the organ systems specifically related to the advanced study of kinesiology and exercise physiology. Special emphasis will be placed on the skeletal, muscular, circulatory, and respiratory systems. Three hours lecture, three hours laboratory weekly. *Four credit hours.*

EXSC 219.HISTORICAL AND PHILOSOPHICAL PRINCIPLES OF PHYSICAL EDUCATION AND EXERCISE SCIENCE

An introductory course for Physical Education and Exercise Science majors. The evolution of the philosophies and programs of each are investigated, and students assess the career opportunities within the areas of physical education, athletic training, sport, and fitness. *Three credit hours.*

EXSC 221.FUNDAMENTAL CONCEPTS IN ATHLETIC TRAINING

The course introduces students to the athletic training profession and to the types of scientific knowledge and skills utilized by an athletic trainer. Emphasis will be placed on comprehensive injury prevention and primary injury management. The course will include lab instruction in taping, bracing, equipment fitting, and other fundamental skills utilized in athletic training. Two hours lecture and one hour laboratory weekly. Prerequisite: Exercise Science Level II program status. *Three credit hours.*

EXSC 283.INTRODUCTION TO EXERCISE SCIENCE

This preparatory course exposes early Exercise Science majors to various skill-based components needed for successful navigation through the Exercise Science major. Examples include laboratory report writing, article dissemination, graphing, and text formatting. Educational aspects that raise awareness of departmental- and university-related requirements and offerings are examined. In addition, topics such as professionalism and career development are discussed. *One credit hour.*

EXSC 300.THEORIES OF COACHING

Theories and techniques of coaching are investigated. Includes organization of practice sessions, preparing for and conducting games and meets, and guidelines for purchasing and caring for facilities and equipment. *Three credit hours.*

EXSC 308.ORGANIZATION AND ADMINISTRATION OF EXERCISE-RELATED PROFESSIONS

This course focuses on the study of organizational and administrative theory, concept, principles, and practices. Specific topics include development of an organizational plan, decision-making, effective communication, personnel administration, and facility and budgetary development/management. Emphasis is placed upon the role and application of effective organizational and administrative procedures in physical education and exercise science. Prerequisite: "C" or better in EXSC 219. *Three credit hours.*

EXSC 310.KINESIOLOGY AND EXERCISE BIOMECHANICS

This course is a study of the mechanical principles of human movement. Emphasis is placed on the role of the muscular and skeletal systems in human movement, and the mechanical analysis of motor skills. Laboratory sessions are an integral and important aspect of this course. Prerequisites: MATH 121 or MATH 141, "C" or better in EXSC 210 or BIOL 202 and meet the academic requirements for Formal Admission into Level II of the Exercise Science Program. *Four credit hours.*

EXSC 311.PHYSIOLOGY OF EXERCISE

The physiological and biochemical alterations occurring in the human body because of physical stress are studied. Emphasis is placed on the understanding of the functional changes that result from acute and chronic exercise. Laboratory sessions are an integral and important aspect of this course. Three hours lecture and three hours laboratory per week. Prerequisites: "C" or better in EXSC 210 or BIOL 202 and meet the academic requirements for Formal Admission into Level II of the Exercise Science Program. *Four credit hours.*

EXSC 325.HUMAN SEXUALITY

The course offers an integrated view of the physiological, psychological, social, and cultural factors that affect human sexuality. The students explore the impact of the lifestyles and values of different cultures on human sexuality. Junior/Senior status required. (General Education – Behavioral and Social Perspectives) *Three credit hours.*

EXSC 326.NUTRITION FOR HEALTH AND PERFORMANCE

A review of normal nutritional needs followed by a thorough study of the effects of food on sport performance. Biochemical actions of foods will be investigated in relation to performance. Consideration will be given to diet analysis, special diets, and the use of ergogenic aids. Prerequisite or co-requisite: EXSC 311. *Three credit hours.*

EXSC 330.PHYSIOLOGICAL ADAPTATIONS TO AGING

This course explores the process of aging on body systems with ramifications related to activity and fitness level. Interrelationships between exercise, nutrition and health are explored from birth to death. Prerequisites: "C" or better in EXSC 311. *Three credit hours.*

EXSC 341.RESEARCH TECHNIQUES

An introduction to the process of research and its usefulness in the fields of exercise science, athletic training, physical education, and sport. This course covers reading, analyzing, and evaluating research articles. Scientific writing, formulating research hypotheses, measuring variables, appropriate research design, and using statistical results to draw conclusions will be included. Prerequisites: "C" or better in MATH 211 and EXSC 311. *Three credit hours.*

EXSC 362.EXERCISE TESTING & PRESCRIPTION

This course provides the student with the opportunity to acquire knowledge and skills for assessing fitness, interpreting, and designing health and activity programs, with an emphasis on developing competency in following ACSM guidelines for exercise testing and prescription. In addition, students will acquire leadership skills through the presentation of exercise testing procedures and the development of exercise prescriptions. This class includes both lectures and hands-on practical laboratory sessions. Prerequisite: "C" or better in EXSC 311. *Four credit hours.*

EXSC 370.SPECIAL TOPICS IN PHYSICAL EDUCATION AND EXERCISE SCIENCE

Selected contemporary topics that generally do not receive thorough coverage in the undergraduate curriculum will be covered in this course. Topics will be selected by the ESHP faculty with input from the students and/or discipline-related agencies. *One to three credit hours.*

EXSC 402.PRINCIPLES OF STRENGTH AND CONDITIONING

Knowledge and application of processes and principles of health-related physical fitness in physical education and sport settings. This course is designed to investigate current techniques and theories of strength training and conditioning for various sports and activities from physiological and biomechanical perspectives. Prerequisites: PETE 144 and EXSC 311 or approval by instructor. *Three credit hours.*

EXSC 405.FITNESS ASSESSMENT AND PROGRAMMING

This course focuses on a study of field tests used to assess health and physical fitness. Using the principles of exercise prescription, students will acquire the knowledge and skills necessary to administer health-related fitness tests, interpret test results, and design exercise and physical activity. This class includes both lecture and hands-on practical laboratory sessions. Prerequisite: "C" or better in EXSC 311. *Three credit hours.*

EXSC 406.CLINICAL EXERCISE PHYSIOLOGY

This course provides the student with the opportunity to acquire knowledge in chronic disease pathophysiology, the benefits of exercise for these diseases, and the skills needed to safely assess fitness and design physical activity programs for clinical populations. Chronic diseases to be addressed include endocrine and metabolic disorders, cardiovascular disorders, respiratory disorders, osteoporosis, arthritis, cancer, and stroke. Prerequisite: "C" or better in EXSC 311. *Three credit hours.*

EXSC 407.INDEPENDENT RESEARCH I

An independent research project which requires the preparation of a proposal for a research project and a thorough review of literature on the topic. The topic must be from at least one of the several ESHP disciplines. Prerequisites: Physical Education-Teacher Education or Exercise Science majors. Sophomore standing or above. Instructor permission. *One credit hour.*

EXSC 424.SPORTS PSYCHOLOGY

The psychological variables affecting motor learning and performance are investigated. Emphasis on the relation of personality factors to motor learning and performance, and the relation of psychological factors to involvement in sports as an athlete, spectator, or coach. Prerequisite: Junior or senior standing. *Three credit hours.*

EXSC 490.INTERNSHIP I

The first of two internships is designed to give ESHP majors practical work experience. Students must apply one semester prior to the semester in which they wish to have work experience. This course may be taken for additional credit up to a maximum of twelve credit hours. Internships for Exercise Science majors require a "B" or better to be considered as passing. Prerequisite or co-requisite: EXSC 362 and permission of the department chair. Students must also have current CPR certification throughout the duration of each internship experience. *Three credit hours per semester.*

EXSC 491.INTERNSHIP II

This course is the second of two required internships designed to give ESHP majors practical work experience. Students must apply one semester prior to the semester in which they wish to have work experience. This course may be taken for additional credit up to a maximum of twelve credit hours. Internships for Exercise Science majors require a "B" or better to be considered as passing. Prerequisites: EXSC 362, "B" or better in EXSC 490, and permission of the department chair. Students must also have current CPR certification throughout the duration of each internship experience. *Three credit hours per semester.*

EXSC 499.PROFESSIONAL CONCERNS SEMINAR

Professional concerns, ranging from current issues in the field to applying to graduate school, are discussed in a seminar format. Completion of assessment requirements is an important component of this course, including achievement of a passing score on the Professional Knowledge Inventory in the student's declared major. Failure to successfully complete all assessment requirements will result in a failing grade for the course. Graded pass/fail. Prerequisite: Senior standing. Physical Education-Teacher Education majors in the semester prior to student teaching or Exercise Science majors in their final semester of classes. *One credit hour.*