EXERCISE SCIENCE/EXERCISE PHYSIOLOGY (EXER)

EXER 125 Introduction to Exercise Science (1 Unit)
Overview for becoming a fitness professional. Information concerning choosing a career, national certification and professional organizations will be provided. (Formerly 5550:125)

EXER 150 Concepts in Health & Fitness (3 Units)
Introduction to basic health and fitness concepts and related topics. Attention will be given to individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, muscle fitness, flexibility, nutrition, managing stress, and assessment methods and procedures. (Formerly 5550:150)

EXER 201 Kinesiology (3 Units)
Prerequisites: BIOL 200, [BIOL 201 or BIOL 202], BIOL 203. Application of basic principles of anatomy and mechanics to human movement. Three hours lecture with practical application and demonstrations. (Formerly 5550:201)

EXER 220 Health Promotion and Behavior Change (3 Units)
Prerequisite: EXER 150. Course will translate theories of behavioral science to equip health professionals with the knowledge and skills necessary to facilitate the initiation and adherence of physical activity and related health behaviors in individuals and groups. (Formerly 5550:220)

EXER 240 Principles of Sports Medicine (3 Units)
Prerequisites: [BIOL 200, BIOL 201, BIOL 202, and BIOL 203] or [ANAT 206, ANAT 207, ANAT 210, and ANAT 211]. This course is an introduction to sports medicine and corrective exercise principles and techniques. The class will include lecture content, access to NASM content, as well as laboratory activities. (Formerly 5550:240)

EXER 275 Clinical Assessment & Evaluation Lower Extremity (3 Units)
Prerequisites: [BIOL 200, BIOL 201, BIOL 202, and BIOL 203] or [ANAT 206, ANAT 207, ANAT 210, and ANAT 211], and EXER 240. This course will prepare the student to perform lower extremity assessment and evaluation using lecture and laboratory knowledge and skill. The NASM CES skills for evaluation and assessment will be a component of this course. (Formerly 5550:275)

EXER 300 Physiology of Exercise for the Older Adult (3 Units)
Prerequisite: EXER 302. Analysis of physiological effects of exercise on the elderly. Exercise programs adaptable for use by persons working with elderly. Three hours lecture. (Formerly 5550:300)

EXER 302 Physiology of Exercise (3 Units)
Prerequisites: [BIOL:200, BIOL:201, BIOL:202, and BIOL:203] or [ANAT:206, ANAT:207, ANAT:210, and ANAT:211] and admission to an exercise science major. Course will present basic and applied science that describes, explains and uses the body's response to exercise and adaptation to exercise training. Course includes lecture and laboratory. (Formerly 5550:302)

EXER 327 Exercise Leadership (3 Units)
Prerequisite: EXER 302. Students learn principles of teaching safe and effective exercises designed to enhance physical fitness. Course will assist students in preparing for a group exercise certification. (Formerly 5550:327)

EXER 330 Exercise and Weight Control (3 Units)
Prerequisite: EXER 302. This course will provide an overview of the epidemiology, pathophysiology, disease implications, underlying etiologic factors and preventive and therapeutic interventions for obesity. The course will introduce different theories and treatments of obesity, assessment of obesity, dietary habits, and physical activity interventions. Students will examine the importance of healthy weight management through physical activity and diet across the lifespan. An overview of eating disorders and nutritional ergogenic aids will be presented. Course will also include an overview of the role of the exercise physiologist in diagnosis and treatment of weight management. (Formerly 5550:330)

EXER 342 Clinical Assessment & Evaluation Upper Extremity (3 Units)
Prerequisites: [BIOL 200, BIOL 201, BIOL 202, and BIOL 203] or [ANAT 206, ANAT 207, ANAT 210, and ANAT 211], and EXER 240. This course is a component of the Sports Medicine Minor. It is designed to integrate the clinical assessment of the upper extremity. Students will gain knowledge, skills, and abilities in assessment, evaluation, and the National Academy of Sports Medicine (NASM) Corrective Exercise Specialist (CES) principles. (Formerly 5550:342)

EXER 352 Strength & Conditioning Fundamentals (3 Units)
Prerequisites: [BIOL:200 and BIOL:201 and BIOL:202 and BIOL:203] or [ANAT:206 and ANAT:210 and ANAT:207 and ANAT:211]. This course is designed to provide students with theoretical and practical knowledge of the physiological, biomechanics and administrative aspects of designing and supervising strength and conditioning programs for various populations. (Formerly 5550:352)

EXER 400 Musculoskeletal Anatomy I: Upper Extremity (3 Units)
Prerequisites: [BIOL:200 and BIOL:202] or [ANAT:206 and ANAT:207]. This course includes lecture/laboratory activities to provide the student a comprehensive learning experience in upper extremity musculoskeletal anatomy. (Formerly 5550:400)

EXER 401 Musculoskeletal Anatomy II: Lower Extremity (3 Units)
Prerequisites: [BIOL 200 and BIOL 202] or [ANAT 206 and ANAT 207]. Pre/Corequisite: EXER 201. This course includes lecture laboratory activities to provide the student a comprehensive learning experience in lower extremity musculoskeletal anatomy. (Formerly 5550:401)

EXER 403 Exercise Testing (3 Units)
Prerequisite: EXER 302. This course will cover knowledge and skills necessary to conduct and interpret fitness and clinical exercise testing. EKG interpretation is emphasized in this course. (Formerly 5550:403)

EXER 404 Exercise Prescription (3 Units)
Prerequisite: EXER 403. This course is designed to prepare the exercise science student to include people with all medical and physical backgrounds in physical fitness. It is imperative that students can safely and effectively modify an existing fitness program to enable individuals with or without special conditions to participate-without changing the quality or nature of the activity. (Formerly 5550:404)

EXER 406 Advanced Strength and Conditioning (3 Units)
Prerequisite: EXER 352. Strength and conditioning programs for heterogeneous populations. The course covers high-level sport specific exercise prescriptions that aids injury prevention and performance enhancement. (Formerly 5550:406)

EXER 410 Exercise in Special Populations (3 Units)
Prerequisites: EXER 302 and EXER 403. This course will provide an overview of the epidemiology, pathophysiology, disease implications, underlying etiologic factors and discuss preventative and therapeutic interventions for a multitude of special populations. This course will introduce different theories, and exercise prescription methods to be implemented in "real life" experiences. (Formerly 5550:355)

EXER 411 Health & Wellness Coaching (4 Units)
Prerequisite: Departmental permission. This course meets the National Board of Health and Wellness Coaching's (NBHWC) published standards for health and wellness coach training programs and meets partial requirements for national certification exam eligibility. The course will facilitate the development of skills in coaching techniques based on behavior change theories and models, including establishing a positive client-centered approach, exploring client values and strengths, and cultivating client's intrinsic motivation to make lasting lifestyle changes.

EXER 412 General Medical Aspects (3 Units)
Prerequisites: [BIOL 200 and BIOL 202] or [ANAT 206 and ANAT 207]. This course covers topics relevant to students who are preparing to be health care practitioners of physically active individuals. The course material covers common systemic disease pathology including characteristics of diseases, diagnostic and laboratory testing, and clinical decision-making tools with respect to general medical conditions. The material is presented in a systematic manner using a problem-based learning approach. Students will gain clinical reasoning and problem- solving skills with course activities such as labs, evidence-based practice, and current medical information. (Formerly 5550:412)

EXER 418 Cardiorespiratory Function (3 Units)
Prerequisite: EXER 302. This course is designed to study the normal structure and function of the respiratory system and how it is affected by different types of disease. (Formerly 5550:418)

EXER 426 Nutrition for Sports (3 Units)
This course will provide an explanation of the consumption, absorption, and recommendation for diet of athletes and the physically active individual. (Formerly 5550:426)

EXER 430 Senior Honors Project:Exercise Science (1-6 Units)
Prerequisite: Senior standing in Honors Program. (May be repeated for a total of six credits) Carefully defined project demonstrating originality and sustained inquiry. (Formerly 5550:430)

EXER 438 Cardiac Rehab Principles (3 Units)
Prerequisite: EXER:302. Pre/Corequisite: EXER:403. This course will teach students the core competencies for cardiac rehab professionals, based upon the American Association of Cardiovascular and Pulmonary Rehabilitation Specialists (AAVCPR). (Formerly 5550:438)

EXER 440 Injury Management for Teachers & Coaches (2 Units)
Prerequisites: PHED 211. This course challenges the student to understand ways to provide and care for the safety of individual they teach or coach. (Formerly 5550:440)

EXER 445 Therapeutic Exercise & Rehabilitation (3 Units)
Prerequisites: [BIOL 200, BIOL 201, BIOL 202, and BIOL 203] or [ANAT 206, ANAT 207, ANAT 210, and ANAT 211]. This course will allow students to use knowledge and skills from other minor courses as well as the National Academy of Sports Medicine (NASM) Corrective Exercise Specialist (CES) knowledge and skills to create exercise and rehabilitation programming. (Formerly 5550:445)

EXER 449 Organization & Administration for Health Care Professionals (3 Units)
Prerequisites: Senior level status and permission only. This class is a requirement for Athletic Trainers and Exercise Science majors. This class presents the skills necessary for supervising a health care facility. (Formerly 5550:449)

EXER 460 Practicum in Exercise Science (1-6 Units)
Prerequisites: Senior standing in the School of Exercise and Nutrition Sciences. Supervised practical experience with personnel in a discipline or profession related to exercise science. May be repeated for a maximum of 12 credits. (Formerly 5550:460)

EXER 465 Psychology of Injury Rehabilitation (2 Units)
Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will address the cognitive and affective aspects of injury and rehabilitation of injury. Specifically the stages of rehabilitation and techniques to aid in the rehabilitation process. (Formerly 5550:465)

EXER 470 Injury Pathology & Therapeutic Interventions (3 Units)
Prerequisites: BIOL 200, BIOL 201, BIOL 202, and BIOL 203. This course will discuss common musculoskeletal pathology and surgical procedure associated with a physically active population. (Formerly 5550:470)

EXER 480 Special Topics: Exercise Science (1-4 Units)
Prerequisite: Admission into College of Health and Human Sciences. (May be repeated with a change in topic) Special topics in exercise science presented. May be repeated with change in topic. (Formerly 5550:480)

EXER 485 Exercise Science Capstone (2 Units)
Prerequisites: EXER:302 and EXER:403. The course will provide structured experiences to improve the knowledge, skills and abilities of an entry level exercise physiologist. This course will supplement existing coursework by addressing gaps in learning competencies towards being a successful exercise professional. A review of certification materials is also an important component of the course. (Formerly 5550:485)