EXERCISE SCIENCE (EXSC)

EXSC 151 - Yoga, Relaxation and Stress Reduction  1 Credit
Prerequisite(s): Exercise Science majors only. Provides for the development of basic skills in the performance and teaching of hatha yoga and basic neuromuscular relaxation. Each student will be able to plan and implement stress reduction programs for individuals in a one-to-one counseling situation and teach sessions in a classroom format. Previous course PEMJ 151 effective through Winter 2012. 1.5 hours lab.

EXSC 233 - Leadership in Aerobic Exercise  3 Credits
Prerequisite(s): PEMJ 131; and Exercise Science major or Sports Nutrition minor only. Students will acquire skills in performing, demonstrating, and teaching aerobic activities. Previous course PEMJ 233 effective through Winter 2012. 2 hours lecture, 1.5 hours lab.

EXSC 234 - Leadership in Anaerobic Exercise  3 Credits
Prerequisite(s): PEMJ 131 and Exercise Science major and Sports Nutrition minor only. Students will acquire skills in performing, demonstrating, and teaching strength training and anaerobic conditioning. Previous course PEMJ 234 effective through Winter 2012. 2 hours lecture, 1.5 hours lab.

EXSC 255 - Research Methods and Data Interpretation  3 Credits
Prerequisite(s): MATH 109 and Exercise Science majors only. This course will provide students with the knowledge and basic skills related to finding and evaluating research literature, the scientific method, quantitative research design and analysis, and scientific writing. Special emphasis will be placed on objective measurements of the human body and bodily functions prominent in the exercise sciences. Scientific writing is a significant component of the course. Meets the Graduation Writing Requirement for majors in Exercise Science. 3 hours lecture.

EXSC 270 - Nutrition for Fitness  3 Credits
Prerequisite(s): NUFD 182 or NUFD 192. This course is designed to provide students a basic understanding of the role nutrition plays in enhancing one's health, fitness, and sport performance. Current research and practical activities are incorporated throughout. Students will learn the principles of healthy eating and its application to exercise for health and athletic performance. An enhanced discussion of the latest dietary trends for improvement of performance, such as ketogenic diets, plant-based proteins, and nutrient timings, will also be included in this course. Cross listed with NUFD 270. 3 hours lecture.

EXSC 300 - Seminar I in Exercise Science  2 Credits
Prerequisite(s): EXSC 234 and Exercise Science majors only or department approval. This course provides the student with the knowledge and basic skills necessary to evaluate potential career choices in the exercise science and fitness industries. Students will visit and observe a variety of fitness related work sites and then apply this knowledge as they engage in real and practical leadership experiences while under the supervision of a fitness professional. 2 hours lecture.

EXSC 331 - Exercise Assessment and Prescription  4 Credits
Prerequisite(s): PEMJ 320 and Exercise Science majors only. This course provides the student with the knowledge and basic skills necessary to support healthy individuals in adopting and maintaining healthy exercise behaviors. Students will learn to perform a variety of health and fitness evaluations prior to the development of individualized exercise recommendations tailored to the needs and goals of each client. The primary focus will be on exercise testing and exercise prescription for the general population to improve health outcomes. 3 hours lecture, 1 hour lab.

EXSC 420 - Theories in Strength and Conditioning  3 Credits
Prerequisite(s): EXSC 234 and PEMJ 320 and Exercise Science majors only. An advanced course about the scientific principles, concepts, and theories of strength training and conditioning and their application to athletic performance. Students examine the effects of both acute and chronic anaerobic training on several physiological systems. Students also investigate the bioenergetics, biomechanics, and administrative concerns of anaerobic training. Additionally, students analyze the effects of age, sex, performance-enhancing substances, nutrition, and psychology on athletic performance. 3 hours lecture.

EXSC 430 - Exercise for Special Populations  3 Credits
Prerequisite(s): EXSC 331 for Exercise Science majors only. PEMJ 320 and departmental approval for Sports Nutrition minors only. This course provides the student with the knowledge to apply principles of personalized fitness to individuals in special populations. Students examine responses to exercise and special considerations for individuals of varying age (children, older adults) and clinical conditions other than heart disease (arthritis, diabetes, dyslipidemia, hypertension, metabolic syndrome, obesity, osteoporosis, pregnancy, pulmonary disease). Emphasis is placed on preparing students to develop safe and effective exercise programs for individuals with special needs. 3 hours lecture.

EXSC 475 - Foundations and Practices in Cardiac Rehabilitation  3 Credits
Prerequisite(s): EXSC 331 for Exercise Science majors only or departmental approval. This course provides the student with the knowledge and basic skills necessary for patient care in a cardiac rehabilitation setting. Students examine the underlying pathology of coronary disease and learn to apply concepts of exercise testing and exercise prescription to patients in this population. Substantial time is allotted to developing student competences in electrocardiographic interpretation necessary for patient monitoring during exercise. Previous course PEMJ 375 effective through Winter 2012. 3 hours lecture.

EXSC 476 - Seminar II in Exercise Science  3 Credits
Prerequisite(s): EXSC 300 and Exercise Science majors only. This course is specifically designed to allow the Exercise Science major to synthesize information from a series of background topics. Presented in a seminar format, this course will include discussions regarding: the role of the exercise practitioner, critical health issues as they relate to exercise, evaluation of criteria for individual and group exercise programs in a variety of settings, individual factors which influence participation and adherence to exercise programming and professional preparation for employment in health and fitness industry. 3 hours lecture.

EXSC 480 - Internship in Exercise Science  8-9 Credits
Prerequisite(s): EXSC 300 and and EXSC 331 and EXSC 420 for Exercise Science Sport Conditioning concentration and departmental approval. EXSC 300 and EXSC 430 and EXSC 475 for Exercise Science Clinical and Pre#professional concentration and departmental approval. The internship offers the student an opportunity to work as a trainee with professionals in organizations and/or agencies. 8 hours internship. Previous course PEMJ 380 effective through Winter 2012.