EXERCISE SCIENCE (EXSC)

EXSC 301. INTRODUCTION TO EXERCISE SCIENCE. 1 Credit.
Pre-requisites: must be declared exercise science major.
This course covers the basic skills necessary for success in the Exercise Science Program and prepares students for a career or graduate school. Students are exposed to professionals from multiple career fields related to Exercise Science.Presentations include the development of a resume and cover letter, how to use the library effectively and various professional development tools. The goal of this course is to help you gain a clear understanding of your career aspirations and to help direct your studies towards those goals.

EXSC 380. NUTRITION IN SPORT AND EXERCISE. 3 Credits.
Pre-requisites: PHED 372, FNDT 356, or permission of the instructor.
This course explores the scientific basis for sports nutrition to optimize health and performance in all levels of athletes. Topics include dietary requirements for specific athletes, sports, and activities. Other topics may include weight control, dietary ergogenic aids, nutritional supplements, periodization of nutrition, and diet modifications for all levels of athletes.

EXSC 388. EXERCISE SCIENCE PRACTICUM. 1-8 Credits.
Pre-requisites: EXSC 301, permission of the instructor.
This experiential learning course is designed to assist exercise science pre-physical therapy (PT), pre-occupational therapy (OT), and pre-athletic training (AT) students develop an understanding and awareness of the job responsibilities of therapists and trainers and prepare for application to pre-professional graduate programs.

EXSC 390. PRINCIPLES OF PROGRAM DESIGN. 3 Credits.
Cross-listed: LMED 390.
Pre-requisites: LMED 350 or PHED 350 with a grade of ≥C+.
This course is designed to identify the connection between assessment data, goal setting, and physical development through exercise program design. Students evaluate information from previous courses and apply that information to create interventions to improve health, fitness, and performance.

EXSC 395. INTERNSHIP. 1-8 Credits.
Pre-requisites: permission of the instructor.

EXSC 411. PHYSICAL ACTIVITY, MENTAL HEALTH, AND COGNITION. 3 Credits.
Cross-listed: LMED 411.
Pre-requisites: sophomore standing.
This course examines neurobiological and psychological premises for the mood-enhancing effects of physical activity, the relationship between physical activity and prevalent forms of mental illness, the role of physical activity in cognitive function across the life span, and the relationship between physical activity, sleep, and brain health.

EXSC 420. PRINCIPLES OF PROGRAM DESIGN FOR SPECIAL POPULATIONS. 4 Credits.
Cross-listed: LMED 420.
Pre-requisites: EXSC 301 and EXSC 390 with a grade of ≥C+.
This course is designed to help prepare students to work safely with clinical populations in health and fitness settings. This course provides an overview of pathophysiology, identifies risk factors and signs and symptoms, and examines exercise management, and in certain cases dietary, recommendations for prevalent forms of chronic disease.

EXSC 440. EXERCISE COUNSELING AND BEHAVIOR CHANGE. 3 Credits.
Cross-listed: LMED 440.
Pre-requisites: EXSC 390.
In this course, students explore health behavior change theories related to the adoption of healthy active lifestyles. Communication and motivational techniques to enhance exercise counseling are examined. Further, this course familiarizes students with educational resources that may support healthy lifestyle behaviors in their clients.

EXSC 455. RESEARCH AND ANALYSIS. 3 Credits.
Pre-requisites: CSBS 320 or MATH 380.
This course is designed to teach the students to critically analyze the literature in the field. In addition, they will be exposed to the criteria for good research and to evaluate how well articles in the field follow that criteria.

EXSC 460. PHYSIOLOGY OF EXERCISE. 4 Credits.
Pre-requisites: PHED 349 and PHED 350, with grades of ≥C+, or permission of the instructor.
This course examines the response of body systems to acute and chronic exercise, with additional examination of the effects of the environment on exercise performance.

EXSC 481. ELECTROCARDIOLOGY INTERPRET. 3 Credits.
Pre-requisites: BIOL 233 with a grade ≥C and PHED 350 with a grade ≥C+.

This course examines the various components of electrocardiography in normal and pathological hearts. A practical component will allow students to gain hands-on experience in conducting resting ECGs and ECGs during a physiological stress test.

EXSC 488. PROFESSIONAL INTERNSHIP. 5-15 Credits.
Pre-requisites: EXSC 301 or permission of the instructor.
This course is designed to assist Exercise Science students prepare for a job in their chosen field. The internship experience is hands-on under the supervision of a professional, monitored by the faculty advisor. Students will complete the majority of their course work to prepare for the experience. The requirement is 400 hours and may be divided into three locations. The experience will be documented through record of hours and regular reflections of the experience.

EXSC 490. SENIOR CAPSTONE IN EXERCISE SCIENCE. 4 Credits.
Pre-requisites: EXSC 420, senior standing.
Satisfies: a university graduation requirement–senior capstone.
This course entails a service-learning project that integrates and applies knowledge gained in the exercise science curriculum and requires innovative thinking and collaboration.

EXSC 495. INTERNSHIP. 1-15 Credits.
Pre-requisites: permission of the instructor, department chair and college dean.

EXSC 496. EXPERIMENTAL. 1-15 Credits.

EXSC 499. DIR STUDY. 1-15 Credits.

EXSC 580. NUTRITION IN SPORT AND EXERCISE. 3 Credits.
Pre-requisites: PHED 372, FNDT 356, or permission of the instructor.
This course explores the scientific basis for sports nutrition to optimize health and performance in all levels of athletes. Topics include, but are not limited to, dietary requirements for specific athletes, sports, and activities. Other topics may include weight control, dietary ergogenic aids, nutritional supplements, periodization of nutrition, and diet modifications for all levels of athletes.