

EXERCISE & SPORT PHYS (EX)

EX 2755 Introduction to Exercise Science (3)

Introduces students to key concepts concerning the anatomical, mechanical, physiological, neural, and psychological bases of human movement. Class activities include origination to curriculum, detailed examination of the sub-disciplines, exposure to available career options in exercise science, along with discussions of current issues and future trends. Falls and Springs.

Prerequisite(s): Exercise and Sport Physiology majors only.

EX 3580 Physiology of Exercise (3)

Exercise physiology is concerned with human functions under the stress of muscular activity; thus it provides a basis for the study of physical fitness and athletic training. A development toward scientific investigation and application of recent research is provided and discussed. Designed to provide the needed link between theory and practice. Falls and Springs.

Prerequisite(s): (BI 1110 and BI 1120) or (BI 2110, 2120, 2130, and 2140).

EX 3750 Physiology of Exercise Laboratory (1)

Physiological measurements of exercise responses in humans are made for the purpose of demonstrating theoretical concepts acquired in the exercise physiology course. Methodology, procedures, and quantification are emphasized in the lab experience. Falls and Springs.

Prerequisite(s): EX 3580 or PE 3580 (may be concurrent).

EX 3860 Exercise Testing and Prescription (3)

Principles and practices of assessing and conducting health-related physical fitness programs to the apparently healthy populations. Falls and Springs.

Prerequisite(s): EX 3580.

Corequisite(s): EX 3865.

EX 3865 Exercise Testing and Prescription Laboratory (1)

Measurement evaluation of health-related physical fitness in healthy populations. Students learn field and laboratory measurements of all components of fitness including cardiovascular endurance, muscular strength and endurance, body composition, and flexibility. Falls and Springs.

Prerequisite(s): EX 3580.

Corequisite(s): EX 3860.

EX 3880 Exercise and Sport Physiology Practicum (1-3)

Designed to give students a practical experience with a specialized focus in selected options that is supervised and controlled by the Department. The Practicum requires 45 hours of work per credit. May be repeatable for credit. Pass/No Pass. Falls and Springs.

Prerequisite(s): Junior status; minimum of 2.00 cumulative GPA; approval of the Program Coordinator.

EX 4500 Special Topics in Exercise and Sport Physiology (1-3)

Topics not covered in other exercise science courses are presented and studied, allowing students to extend their experience and competencies in a variety of health-related or sports-oriented topics. May be repeated for credit with different topics. Pass/No Pass. Unscheduled.

Prerequisite(s): Junior status, minimum 2.00 cumulative GPA; permission of the instructor.

EX 4520 Principles and Theories of Strength and Conditioning (3)

Advanced study of scientific principles and theories related to strength and conditioning for varying populations. Discussions relative to concepts and applications in the exercise sciences, testing and evaluation, program design, and strength and conditioning facility organization and administration are emphasized. Springs.

Prerequisite(s): BI 2120, BI 2140, PE 3570, and (EX 3580 or PE 3580).

Corequisite(s): EX 4525.

EX 4525 Principles and Theories of Strength and Conditioning Laboratory (1)

Practical application of strength and conditioning principles introduced in EX 4520 Principles and Theories of Strength and Conditioning.

Emphasizes exercise testing and technique. Springs.

Prerequisite(s): BI 2120, BI 2140, PE 3570, and (EX 3580 or PE 3580).

Corequisite(s): EX 4520.

EX 4770 Exercise Physiology for Special Populations (3)

Students will explore factors that may impact physical activity engagement for special populations. Students will learn to conduct assessments of physical fitness for specific populations. Students will discuss the principles and practices of physical activity recommendations for special populations. Springs. (WRCO)

Prerequisite(s): EX 3860

EX 4820 Advanced Exercise Physiology (3)

Provides an intensive study of exercise physiology with a focus on the cardiovascular and metabolic systems. Emphasis is placed on the acute and chronic effects of exercise on myocardial function and the energy pathways. Additional course fee required. Falls.

Prerequisite(s): CH 2335, (EX 3580 or PE 3580), and (EX 3750 or PE 3750).

Corequisite(s): EX 4825.

EX 4825 Advanced Exercise Physiology Laboratory (1)

Provides an in-depth study of and hands-on experience with laboratory measurement techniques used in exercise physiology research. Students learn how to operate, calibrate, and care for all relevant instruments. Falls.

Prerequisite(s): CH 2335, (EX 3580 or PE 3580), and (EX 3750 or PE 3750).

Corequisite(s): EX 4820.

EX 4830 Applied Research in Exercise Science (4)

Students participate in the research process including the development of a research proposal, subject recruitment, collection of relevant data, statistical analysis, and completion of the manuscript for potential submission to a peer-reviewed journal. Students design a poster presentation for submission to a professional conference. Additional course fee required. Springs.

Prerequisite(s): EX 4840 or PE 4840.

EX 4840 Research Methods in Exercise Science (3)

Introduces students to concepts, design, and interpretation of research in exercise science. Places emphasis on the process of research writing. Focuses on critical review of the literature and the development of a research proposal. Falls. (WRCO)

Prerequisite(s): (EX 3580 or PE 3580), (EX 3890 or PE 3890), (EX 3895 or PE 3895); Exercise and Sport Physiology majors only.

EX 4880 Exercise & Sport Physiology Internship (4-12)

For students desiring a culminating educational experience with a wide range of practical on-the-job work in their degree program. The Internship is in agencies that are approved, supervised, and evaluated by the Department. Repeatable for a maximum of 12 credits. Falls and Springs.

Prerequisite(s): minimum 2.70 cumulative and major GPAs; junior standing; approval of the Department Chair.