EXERCISE PHYSIOLOGY COURSES (EXP)

EXPH 325 PHYSIOLOGY OF EXERCISE (3) *Prerequisites: BIOL 214, 215.* This course studies the human body's short term and long term adjustments to exercise. Topics include: musculoskeletal function, energy metabolism, respiratory adjustments, heart and circulatory adjustment, neural control, temperature regulation, environmental effects, and conditioning principles.

EXPH 326 ADVANCED PHYSIOLOGY OF EXERCISE (3) *Prerequisite: EXPH 325.* This course is designed to provide students with an in-depth study of physiological and biochemical alterations occurring in the human body as a result of exercise. Topics will include control of bioenergetics, exercise metabolism, acute and chronic adaptations to aerobic and resistance training programs, physiology of performance, environmental effects, hormonal responses, and temperature regulation.

EXPH 330 ASSESSMENT AND TREATMENT OF GENERAL MEDICAL CONDITIONS (3) *Prerequisite: EXPH 325.* This course is designed to provide students with the knowledge and skill necessary to recognize and treat a variety of systemic pathologies.

EXPH 342 MEASUREMENT TECHNIQUES IN EXERCISE PHYSIOLOGY (3) *Prerequisite: EXPH 325.* This course provides the opportunity for students to learn the instrumentation, techniques, protocols, and methodologies used in physiological testing.

EXPH 355 SCIENTIFIC PRINCIPLES OF STRENGTH AND CONDITIONING (3) *Prerequisites: BIOL 214, 215.* This course provides students with the scientific principles and practical skills to develop and adjust conditioning programs. Students learn how to design conditioning programs to address strength, power, speed, agility, and endurance needs. Students also learn how to adjust programs for those with special needs (e.g. injuries) so programs can be safe and effective.

EXPH 370 SPORTS NUTRITION (3) *Prerequisite: HPE 102 or HLTH 102.* This course will discuss the six fundamental nutrients - carbohydrates, fats, proteins, vitamins, minerals, and water - in relation to physical activity. Additional topics include ergogenic aids, weight loss/gain/maintenance, eating disorders, nutritional fads, pre/during/post activity nutrition, and food labeling.

EXPH 380 KINESIOLOGY (3) *Recommended: BIOL 214, 215.* This course is a study of the origin, mechanics, and effectiveness of human motion.

EXPH 382 EXERCISE PHYSIOLOGY OF SPECIAL POPULATIONS (3) *Prerequisites: EXPH 325, 342* This course involves the study of the origin of several cardiovascular and metabolic diseases, the limitations that these diseases place on a person's lifestyle, and the role of exercise in prevention, diagnosis, and treatment of disease.

EXPH 397 INDEPENDENT STUDY IN EXERCISE PHYSIOLOGY (1-3) *Prerequisites: Approval of faculty sponsor and school dean; junior or senior standing.* This course provides students the opportunity to pursue individual study of topics not covered in other available courses. The area for investigation is developed in consultation with a faculty sponsor and credit is dependent on the nature of the work. May be repeated for no more than six credits.

EXPH 398 SPECIAL TOPICS IN EXERCISE PHYSIOLOGY (1-3) [credit depends on topic] *Prerequisite: A background of work in the discipline or prior consent of instructor.* This course will focus on an aspect of the discipline not otherwise covered by the regularly offered courses. The topic will vary according to professor and term; consequently, more than one may be taken by a student during his/her matriculation.

EXPH 415 INTERNSHIP IN EXERCISE PHYSIOLOGY (1-12) *Prerequisites: Juniors or seniors with a 2.25 minimum QPA; approval of written proposal by internship coordinator, and supervising faculty prior to registration.* This course offers a professional internship with an appropriate health fitness organization/program. The student and faculty sponsor agree on the location and responsibilities of the intern. The number of credits depends on the number of hours involved. (See "Internships.")

EXPH 425 HEALTH AND FITNESS EVALUATION AND PROGRAMMING (3) *Prerequisites: EXPH 325, 342.* This course involves a review of basic exercise testing and programming for healthy populations. Emphasis is placed upon practical fitness assessment and individualized exercise programming for effective change. The course is the foundation for the American College of Sports Medicine Certification for Health and Fitness.

EXPH 450 ADVANCED ISSUES AND RESEARCH IN EXERCISE PHYSIOLOGY (3) *Prerequisite: EXPH 325; Corequisite or prerequisite: MATH 222.* This capstone course is designed to familiarize students with current issues in exercise physiology and to acquaint them with research in exercise physiology. Students will be expected to integrate knowledge obtained from prior courses to discuss and write on many issues and research topics in exercise physiology.