**EXERCISE SCIENCE (EXSC)**

**Courses**

**EXSC 302. Research Mthd Phys Activity. 3 Credits.**
Scientific writing, research technique, statistics, computer application, and quantitative research design and technique. Considerable emphasis is placed on evaluation of research published in scholarly publications. A research proposal is written as one of the course requirements. Prerequisites: Undergraduate statistics course, undergraduate research course.

**EXSC 303. Phys Act & Chronic Dis Epidem. 3 Credits.**
Understanding health benefits of physical activity on chronic disease prevention and health promotion throughout the life span, from clinical and public health perspectives. Discussion and application of real-life physical activity assessment, research, guidelines, and promotion in population levels.

**EXSC 345. Exercise Assessment & Prescrip. 3 Credits.**
Expand upon the clinical aspects of exercise physiology to evaluative and prescriptive aspects of exercise programming. Students will gain an understanding of how to evaluate testing results and prescribe safe and effective exercise programs using ACSM guidelines. Prerequisite: Master of Science in Physical Activity & Wellness Science Graduate student.

**EXSC 350. Physical Activity and Disease. 3 Credits.**
Empirically based exploration of the relationship between physical activity and chronic disease conditions such as obesity, cardiovascular disease, and type 2 diabetes. Prerequisite: RMS 220 or equivalent. Co-requisite: Physical Activity and Wellness Graduate student.

**EXSC 352. Hlth & Wellness Prom Theory. 3 Credits.**
Discuss contemporary theories of health behavior with emphasis placed on how these theories explain behavior and the fundamental roles they play in effective health promotion. Prerequisite: MS in Physical Activity and Wellness Science student.

**EXSC 353. Behavior Change for Phys Act. 3 Credits.**
Provide the student with an in depth exploration of contemporary, empirically based models of behavioral change related to physical activity. This course will focus on understanding physical activity and health behavior, and exploration of interventions for PA. Prerequisite: MS in Physical Activity and Wellness Science student.

**EXSC 360. Energy Balance. 3 Credits.**
Empirically based exploration of human metabolism, energy balance, and weight management. An in-depth study of gold-standard and cutting-edge scientific literature regarding the impact of energy expenditure through physical activity and energy. Prerequisite: MS in Physical Activity and Wellness Science student.

**EXSC 363. Exercise in Clin Populations. 3 Credits.**
Advanced course in exercise prescription and programming for individuals with chronic conditions and disabilities. Pathophysiology and considerations relative to diseases of the musculoskeletal, neuromuscular, and immunologic systems will be discussed. Prerequisite: Undergraduate course in Exercise Physiology. Co-requisite: Master of Science in Physical Activity & Wellness Science student.

**EXSC 368. Phys Act Prog Design and Mngmt. 3 Credits.**
High-level review, application of designing, modifying, adapting individualized, evidence-based, exercise prescriptions. Emphasis on cardiorespiratory, muscular fitness. Students apply evidence-based knowledge related to development of comprehensive evidence based exercise programs. Co-requisite: Master of Science in Physical Activity & Wellness Science student.

**EXSC 370. Health Policy for Wellness. 3 Credits.**
Seminar-style, group-based in-depth exploration and analysis regarding current health policy and community wellness strategies, particularly in the areas of lifestyle modification such as physical activity and nutritional public health recommendations. Prerequisite: MS in Physical Activity and Wellness Science student.