KIN - Kinesiology

KIN 105 Foundations of Exercise Sciences: 3 Credits (3 Lec) (F, Sp) The aim of this course is to integrate the subdisciplines of exercise science (nutrition, biomechanics, exercise physiology, motor control, and exercise psychology) from the perspectives of definitions, basic science with application to health, fitness, and athletic performance.

KIN 210 Principles of Strength and Conditioning: 3 Credits (3 Lec) PREREQUISITE: KIN 105. (F) An introduction to the knowledge and skills necessary for the planning, implementation and evaluation of goal-oriented exercise training.

KIN 221 Health Anatomy & Physiology: 3 Credits (3 Lec) PREREQUISITE: CHTH 210 or KIN 105 or HEE 242. (Sp) This course will focus on the key elements of anatomy and physiology necessary for students in allied health professions, specifically those who will work in the areas of community health, health enhancement education, health promotion, and kinesiology. The aim of this course is for students to demonstrate working knowledge of the muscular, skeletal, nervous, cardiovascular, and respiratory, endocrine, and digestive systems, as well as body metabolism.

KIN 270 Exercise Prog for Older Adults: 3 Credits (3 Lec) Students will examine the special exercise-related needs of older adults and learn how to safely and effectively meet those needs. The lab will provide practical experience working with older adults in exercise program for seniors.

KIN 300 Exercise Physiology: 4 Credits (3 Lec, 1 Lab) PREREQUISITE: Grade of "C" or better in BIOH 201 and BIOH 211, or KIN 221, or permission of instructor. COREQUISITE: BIOH 211 may also be taken as a co-requisite. (Sp, Su) Topics include factors and mechanisms involved with causing changes and adaptations in the physiological responses to training and participating in strength and endurance sports and activities. Lectures and labs emphasize explaining common observations and practices from the physiological viewpoint.

KIN 320 Kinesiology: 4 Credits (3 Lec, 1 Lab) PREREQUISITE: BIOH 201 or KIN 221, and M core or permission of instructor. (F) Emphasis on the effects of joint structures and muscles on movement of the upper extremity, lower extremity, and spine while providing an introduction to the principles of biomechanics.

KIN 325R Biomechanics: 4 Credits (3 Lec, 1 Lab) PREREQUISITE: HDFS 371, KIN 322, M 151Q or M 161Q, and PHSX 205. COREQUISITE: STAT 216Q. (Sp, Su) This course emphasizes the effects of structure, motion, forces, and their effects on and within the human body using both quantitative and qualitative analyses. Additional emphasis will be placed on the development of critical thinking skills associated with biomechanics-related research and interpretation.

KIN 330 Motor Control and Learning: 4 Credits (3 Lec, 1 Lab) PREREQUISITE: Grade of "C" or better in BIOH 201 or KIN 221, and KIN 320, KIN 322, KIN 325, HDFS 371. (F) This course provides an overview of the role of the brain and nervous system in the control of human movement. Fundamental concepts from motor control will be applied to understand motor deficits in clinical population.
KIN 491 Special Topics: 1-4 Credits (1-4 Lec)
Courses not required in any curriculum for which there is a particular one-time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Repeatable up to 12 credits.

KIN 492 Independent Study: 1-3 Credits (1 Other)
PREREQUISITE: Junior standing, consent of instructor, and approval of department head. (F, Sp, Su) Directed research and study on an individual basis. Repeatable up to 6 credits.

KIN 496 Student Assistant Practicum in Kinesiology: 2 Credits (1 Lec, 1 Lab)
PREREQUISITE: Consent of Instructor. (F, Sp) This course aims to enhance students' knowledge, verbal communication, and leadership skills by providing educational support to students in various KIN rubric lecture or lab courses. Under the direct supervision of the faculty instructor, students will attend weekly prepatory meetings to review course content and best teaching practices while working towards their own personal goals. Repeatable up to 4 credits.

KIN 498 Internship: 1-12 Credits (1-12 Other)
PREREQUISITE: Consent of instructor. (F, Sp, Su) An individualized assignment with a professional agency to provide a guided field experience. Repeatable up to 12 credits.

KIN 506 Exercise and Chronic Disease: 3 Credits (3 Lec)
PREREQUISITE: Graduate Standing. (Sp) This course will review the implications of exercise for individuals managing chronic conditions throughout the lifespan. Selected chronic diseases will be studied including basic pathophysiology, management, medication, and effects on the exercise response. Research associated with selected chronic conditions will be reviewed.

KIN 515 Exercise Performance and Nutrition: 3 Credits (3 Lec)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences program. (F) Offered every other Fall, even years. Knowledge in areas of anatomy and physiology, upper division courses in one or combination of: exercise physiology, biochemistry, or nutrition. This class covers selected topics in exercise physiology, nutrition, and metabolism related to physiological function and performance. The use of nutritional supplements during exercise and the environmental influences on physiological function and metabolism will be addressed.

KIN 525 Neuromechanics of Human Movement: 3 Credits (3 Lec)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences and undergraduate anatomy and physiology, or exercise physiology, or a biomechanics course. (F) Offered every other Fall, even years. Students will study the concepts, terms, and methods of investigating biomechanics, neuroscience/neuromechanics, motor control, and movement disorders in the human movement system.

KIN 535 Advanced Motor Control: 3 Credits (3 Lec)
PREREQUISITE: Graduate standing and undergraduate motor control course. (Sp) Students will develop an advanced understanding of the key issues in motor control including the degrees of freedom problem and abundance, the perceptual-motor integration problem, the serial order problem and the skill acquisition problem. Students will build advanced knowledge of theoretical concepts by reviewing the cognitive processing model and contrasting this perspective with dynamical systems theory. These fundamental concepts of motor control will be applied to understand skilled motor performance across a range of applications.

KIN 545 Graduate Exercise Physiology: 3 Credits (3 Lec)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences; undergraduate exercise physiology. (F) This course defines and explains a conceptual mechanistic-driven model that explains the basis for maximizing human performance. The instructor relies heavily on readings from the current research literature and student participation to understand the plethora of topics covered.

KIN 575 Professional Paper and Project: 1-6 Credits (1-6 Other)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences. (F, Sp, Su) A research or professional paper or project dealing with a topic in the field. The topic must have been mutually agreed upon by the student and his or her major advisor and graduate committee. Repeatable up to 6 credits.

KIN 588 Professional Development: 1-3 Credits (1-3 Lec)
PREREQUISITE: Graduate standing, teaching experience and/or current employment in a school organization, and consent of instructor and Dean of the Graduate School. (Su) Courses offered on a one-time basis to fulfill professional development needs of in service educators. A specific focus is given to each course which is appropriately subtitled. May be repeated. Repeatable up to 3 credits.

KIN 589 Graduate Consultation: 1-3 Credits (1 Other)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences and approval of committee chair. (F, Sp, Su) This course may be used only by students who have completed all of their course work (and thesis if on a thesis plan) but who need additional faculty or staff time or help. Repeatable up to 3 credits.

KIN 590 Master’s Thesis: 1-10 Credits (1 Other)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences. (F, Sp, Su) Directed graduate research/creative activity. May be repeated. Repeatable up to 99 credits.

KIN 591 Special Topics: 1-4 Credits (1-4 Lec)
PREREQUISITE: Upper division courses and others as determined for each offering. Courses not required in any curriculum for which there is a particular one time need, or given on a trial basis to determine acceptability and demand before requesting a regular course number. Repeatable up to 12 credits.

KIN 592 Independent Study: 1-3 Credits (1 Other)
PREREQUISITE: Graduate standing, consent of instructor and approval of department head. (F, Sp, Su) Directed research and study on an individual basis. Repeatable up to 6 credits.

KIN 594 Seminar: 1 Credits (1 Other)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences or seniors by petition. (F, Sp) Course prerequisites as determined for each offering. Topics offered at the graduate level that are not covered in regular courses. Students participate in preparing and presenting discussion material. Repeatable up to 6 credits.

KIN 598 Internship: 2-12 Credits (2 Other)
PREREQUISITE: Graduate standing in Exercise and Nutrition Sciences and consent of instructor. (F, Sp, Su) An individualized assignment arranged with an agency, business or other organization to provide guided experience in the field. Repeatable up to 99 credits.

KIN 690 Dissertation: 1-10 Credits (1-10 Other)
(F, Sp, Su) Dissertation. Repeatable up to 99 credits.

KIN 692 Independent Study: 1-3 Credits (1-3 Other)
(F, Sp, Su) Directed research and study on an individual basis. Repeatable up to 6 credits.