

KINESIOLOGY (KIN)

KIN 501 Research Methods in Kinesiology 3 Hours

An examination of the methods, materials, techniques, and planning of research studies used and conducted in the various disciplines of kinesiology.

Recent Term(s) Offered: fall 2022; spring 2024

KIN 503 Advanced Motor Learning and Control 3 Hours

Theories and principles of learning as they apply to the acquisition of gross motor skills. Emphasizes the interpretation and practical application of experimental data.

Recent Term(s) Offered: fall 2022; fall 2023

KIN 504 Advanced Exercise Physiology 3 Hours

A comprehensive study of the acute responses and chronic adaptations resulting from exercise or other stressors on the physiological function of the human body. Particular attention will be given to applied learning, as well as to review and critique current research.

Recent Term(s) Offered: fall 2022; spring 2024

KIN 505 Foundations of Curriculum Construction 3 Hours

Principles, procedures, and criteria for curriculum construction and revision, course building, and lesson planning.

Recent Term(s) Offered: None

KIN 508 Adaptive Physical Education 3 Hours

In-depth study of instruction of disabled children in mainstream and/or special physical education classes. Knowledge and skills necessary to assess, plan intervention, and instruct mild, moderate, severely/profoundly disabled children in physical education.

Recent Term(s) Offered: None

KIN 509 Sport in Multicultural Society 3 Hours

An exploration of the role of sport in the United States, its influence on societal structures, and the leadership strategies required to ensure that sport promotes inclusivity, equity, and values reflective of a diverse and multicultural society.

Recent Term(s) Offered: None

KIN 512 Advanced Strength & Conditioning 3 Hours

Combine theoretical knowledge with practical application to develop advanced knowledge of strength and conditioning principles and practices. Students will develop the skills to design, implement, and critique effective strength and conditioning programs tailored to athletic and tactical populations (e.g., police, firefighters, military). They will critically evaluate current research to inform evidence-based practice.

Recent Term(s) Offered: spring 2022; fall 2023

KIN 513 Coaching Theory 3 Hours

The theory and analysis of leadership behavior in interscholastic athletics with an emphasis on developing leadership knowledge, personal behavior qualities and job related skills applicable in diverse interscholastic athletic settings.

Recent Term(s) Offered: None

KIN 514 Lab Methods in Exercise Physiology 3 Hours

Theory and application of laboratory techniques germane to research in Exercise Physiology. Includes musculoskeletal, cardiovascular, metabolic, and human performance testing.

Recent Term(s) Offered: spring 2022; spring 2023; spring 2024

KIN 515 Advanced Measurement and Evaluation 3 Hours

Study and application of assessment tools and statistical techniques commonly used in sport science research. Focuses on regression modeling, single and multi-factor analysis of variance, and repeated measures designs to analyze performance, training adaptations, and injury risk. Emphasis is placed on interpreting results and applying findings to support data-driven decisions in athletic development and sports performance.

Recent Term(s) Offered: None

KIN 516 Administrative Practice in KRS 3 Hours

Provide useful information and techniques related to the administration of physical education programs in both school and other settings. Students will focus on leadership that enhances the organization, management, planning and implementing programs and facilities.

Recent Term(s) Offered: None

KIN 518 Advanced Statistics in Kinesiology 3 Hours

Study and application of statistical techniques commonly used in kinesiology research. Includes regression modeling, single and multifactor analysis of variance, and repeated measures designs.

Restriction(s): Enrollment is limited to students in Kinesiology (0454)

Recent Term(s) Offered: fall 2023; fall 2024

KIN 520 Teaching Strategies in Physical Education 3 Hours

Study and application of teaching strategies utilized in the elementary and secondary physical education setting.

Recent Term(s) Offered: None

KIN 521 Analysis and Criticism of Professional Literature in Physical Education 3 Hours

Analysis and critical evaluation of professional literature in the field of physical education and exercise science.

Recent Term(s) Offered: None

KIN 522 Advanced Exercise Testing and Prescription 3 Hours

In-depth examination of exercise testing and prescription for a range of populations, including apparently healthy individuals and those with chronic conditions such as cardiovascular, pulmonary, and metabolic diseases. With a focus on the American College of Sports Medicine (ACSM) guidelines, students will gain the knowledge, skills, and abilities to administer advanced testing protocols, including clinical graded exercise tests (GXT) and submaximal assessments of cardiovascular fitness, strength, and endurance. The course emphasizes risk stratification, safety screening, and the interpretation of cardiovascular, and musculoskeletal data to develop individualized, evidence-based exercise prescriptions. Through the incorporation of exercise interventions, students will learn to optimize health and fitness in apparently healthy populations while managing and improving chronic disease outcomes.

Recent Term(s) Offered: spring 2022; fall 2023

KIN 523 Seminar in Exercise Physiology 3 Hours (repeatable max of 6 hrs)

Advanced study of contemporary knowledge and current professional research centering on various selected topics to the field of exercise science.

Recent Term(s) Offered: fall 2022; spring 2023; fall 2024

KIN 524 Applied Biomechanics 3 Hours

Advanced study of the mechanical, neuromuscular, and anatomical bases of human movement.

Recent Term(s) Offered: fall 2022; spring 2023; fall 2024

KIN 525 Fitness Management 3 Hours

Exploration of current industry standards and guidelines for operating private, corporate and clinical fitness facilities. Investigation of fitness management practices will also be conducted.

Recent Term(s) Offered: None

KIN 528 Dynamics of Injury Management 3 Hours

Integrates the knowledge, skills and values that Certified Athletic Trainers must possess to evaluate and treat athletic injuries and refer to appropriate medical personnel.

Restriction(s): Enrollment is limited to students in Recreation and Sport Admin (095)

Recent Term(s) Offered: None

KIN 530 Independent Investigation in Kinesiology 1-3 Hours

(repeatable max of 3 hrs)

Research problems or projects in the scientific, organizational, administrative, or supervisory areas of kinesiology.

Recent Term(s) Offered: fall 2022; summer 2023

KIN 536 Applied Sport Science 3 Hours

Exploration of sport science essentials to make data-driven decisions to optimize athlete performance and manage training loads. Students will learn to apply scientific principles and data capture techniques for key performance indicators, focusing on optimizing training and recovery, reducing injury risk, and supporting athlete development.

Recent Term(s) Offered: None

KIN 596 Internship in Exercise Physiology 1-6 Hours (repeatable max of 6 hrs)

Gain hands-on experience in applied exercise physiology through supervised work or laboratory settings, designed to integrate and expand on academic training as the student progresses toward completing the graduate program. This experience offers immersive opportunities to apply theoretical knowledge in real-world contexts, enhancing skills in exercise assessment, program design, and data analysis under the guidance of industry professionals. Liability insurance is required to participate in this course.

Recent Term(s) Offered: spring 2022; spring 2023

KIN 598 Capstone Research Experience in Exercise Physiology 1-6 Hours (repeatable max of 6 hrs)

Designed for non-thesis students in the master's program in kinesiology to gain appropriate research experience prior to completing the program.

Recent Term(s) Offered: None

KIN 599 Thesis Research/Writing 1-6 Hours (repeatable max of 6 hrs)

Structured guidance and support for master's students in kinesiology as they develop, conduct, and complete their thesis research. Emphasis is placed on the entire research process, including the formulation of a research question, comprehensive literature review, research design and methodology, data analysis, and scholarly writing. Through regular feedback and peer review, students will refine their thesis writing skills and progress toward producing a high-quality, publication-ready thesis. This course is designed to help students meet the scholarly standards of the field of kinesiology and prepare for professional or doctoral pursuits.

Recent Term(s) Offered: spring 2022; spring 2023; fall 2023; spring 2024

KIN 600 Maintain Matriculation 1-6 Hours (repeatable max of 6 hrs)

Continued enrollment for thesis completion.

Recent Term(s) Offered: spring 2022; summer 2023; summer 2024