

Kinesiology (KINS)

Course information contained within the Bulletin is accurate at the time of publication in June 2025 but is subject to change. For the most up-to-date course information, please refer to the Course Catalog.

KINS 5202. Biomechanical Skeletal Tissue. 3 Credit Hours.

This course offers an in-depth examination of the structure, composition, and material behavior of the basic skeletal tissues, including bone, cartilage, tendon, ligament, and muscle. The pathomechanics of injury, adaptation to loading, and degenerative changes associated with aging are analyzed.

Repeatability: This course may not be repeated for additional credits.

KINS 5237. Racial Minorities and Sport. 3 Credit Hours.

This dual-level course focuses on the positions and roles of African American and other persons of color in American sport. Topics to be covered assist in consciousness raising of both white students and students of color to the unique experiences and challenges of racial minority participants in sport.

Repeatability: This course may not be repeated for additional credits.

KINS 5239. Self-Development and Sport. 3 Credit Hours.

This group process experiential course focuses the student's attention on the patterns and practices of her/his own sport or exercise. Assessments of satisfaction and areas for change are followed by action plan development for future experiences.

Repeatability: This course may not be repeated for additional credits.

KINS 5311. Physiology of Exercise. 3 Credit Hours.

This course is a survey of the broad spectrum of exercise physiology. The physiology concepts presented are applied to research, rehabilitation, preventive medicine, and coaching. Such topics as nutrition and performance, weight control, stress testing, and ergogenic aids are discussed in detail. Basic laboratory techniques and classical experiments are demonstrated.

Repeatability: This course may not be repeated for additional credits.

KINS 5312. Exercise and Nutrient Metabolism. 3 Credit Hours.

The scientific principles controlling the relationship between exercise, nutrition, and weight control are examined. Special emphasis is directed toward the practical application of these principles for the development of individualized weight control programs.

Repeatability: This course may not be repeated for additional credits.

KINS 5313. Exercise and Aging. 3 Credit Hours.

This course offers a study of the potential influence of exercise on the aging process. The scientific principles that govern aging processes and the influences of exercise on these processes are reviewed as well as the development of exercise programs for geriatric populations.

Repeatability: This course may not be repeated for additional credits.

KINS 5333. Clinical Cardiovascular-Pulmonary Exercise Physiology. 3 Credit Hours.

The course explores the roles and responsibilities of the clinical exercise professional in performing clinical exercise test procedures and programming exercise for populations with specific known cardiovascular and pulmonary diseases. Accordingly, the student will apply their knowledge, skills, and abilities of exercise programming to populations with diverse cardiovascular and pulmonary diseases, in mostly lecture and a few isolated laboratory experiences. The course will cover the basic pathophysiology of a wide variety of cardiovascular and pulmonary diseases and disorders, methods of diagnosis, the effect on the exercise response, and common management and medications. A review of the effects of exercise training will be conducted and recommendations regarding exercise testing and programming will be discussed for each disease/disorder. Some CV diseases/disorders covered include atherosclerosis, acute coronary syndromes, heart revascularization, cardiac transplant, valvular disease, heart failure, severe cardiac dysrhythmias, hypertension, and peripheral artery disease. Some pulmonary diseases include COPD, asthma, cystic fibrosis, restrictive disease and lung transplant. Also, students will learn to conduct a complete clinical evaluation according to the American College of Sports Medicine (ACSM) guidelines and conduct a clinical graded exercise test with an appropriate protocol. The content of this course is found on the certification exam for the ACSM Clinical Exercise Physiologist.

Repeatability: This course may not be repeated for additional credits.

KINS 5335. Clinical Exercise Physiology. 3 Credit Hours.

While KINS 5333, Clinical Cardiovascular-Pulmonary Exercise Physiology focuses strictly on various types of CV and Pulmonary diseases, this course explores the roles and responsibilities of the clinical exercise professional in performing clinical exercise test procedures and prescribing exercise programs in populations with other specific known chronic diseases. Accordingly, the student will apply their knowledge, skills, and abilities to diseased populations in mostly lectures and an isolated laboratory experience. The course will cover the basic pathophysiology of a wide variety of chronic diseases and disorders, the effect on the exercise response, and common management and medications. A review of the effects of exercise training will be conducted and recommendations regarding exercise testing and programming will be discussed for each disease/disorder. Diseases/disorders covered include immunological, hematological, orthopedic, neuromuscular, cognitive and psychosocial disorders. Also, students will learn to conduct a complete clinical evaluation according to the American College of Sports Medicine (ACSM) guidelines and conduct a clinical graded exercise test with an appropriate protocol. The content of this course is found on the certification exam for the ACSM Clinical Exercise Physiologist.

Repeatability: This course may not be repeated for additional credits.

KINS 5987. Practicum in Athletic Training IV. 3 Credit Hours.

This three-credit course is designed to accompany the final of four clinical experiences in the athletic training curriculum to further develop and enhance the practical skills and knowledge necessary for clinical practice. Students will review and demonstrate organization and administration principles and applied research skills.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: Minimum grade of B in KINS 5443, KINS 5644, and KINS 5687.

KINS 8500. Symposium in Kinesiology. 3 Credit Hours.

This course provides an opportunity for an in-depth examination of a special topic of interest, generally in a smaller class setting.

Repeatability: This course may be repeated for additional credit.

KINS 9201. Cardiovascular Exercise Physiology. 3 Credit Hours.

This is a comprehensive cardiovascular exercise physiology course that emphasizes the mechanisms of regulatory function of the cardiovascular system during acute physical activity and the mechanisms of the adaptive response to exercise training.

Repeatability: This course may not be repeated for additional credits.

KINS 9203. Appl Ex Physio-Neuromusc. 3 Credit Hours.

Principles of neurophysiological regulatory mechanisms of muscle contraction are the focus of this course. Skeletal muscle physiology, including muscle fiber types, neuromuscular junction, motor unit recruitment, and fatigue are discussed. Mechanisms of adaptation in skeletal muscles and the biomedical adaptations produced by increased and decreased use are also discussed, with emphasis on cell signaling and genomics.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: KINS 5311.

KINS 9204. Cellular Adapt to Exer. 3 Credit Hours.

This course examines control and regulatory mechanisms at the tissue and cellular levels during exercise. Mechanisms of adaptation in cells and tissues and the biomedical adaptations produced by training are discussed, with emphasis on genomics and cell signaling.

Repeatability: This course may not be repeated for additional credits.

Pre-requisites: (KINS 4311 or KINS 5311) and KINS 9203.

KINS 9205. Exercise Testing and Prescription. 3 Credit Hours.

This course enhances the knowledge and skills of persons interested in preventive and rehabilitative exercise programs. Exercise in the diagnosis, prevention, and rehabilitation of coronary heart disease, as well as the techniques of exercise stress testing are studied. Emphasis is placed on the development of exercise prescriptions from graded exercise test data.

Repeatability: This course may not be repeated for additional credits.

KINS 9287. Athletic Training/Sports Medicine Practicum I. 1 to 6 Credit Hour.

This is a practicum in which the student satisfies the 200-hour requirement by serving as an athletic trainer in a NATA-approved allied-health setting such as the Temple University Sports Medicine Clinics. Students perform athletic training duties under the supervision of certified athletic trainers and orthopedic surgeons.

Repeatability: This course may be repeated for additional credit.

KINS 9288. Athletic Training/Sports Medicine Practicum II. 1 to 6 Credit Hour.

As a continuation of KINS 9287, in this practicum the student further satisfies the 200-hour requirement by serving as an athletic trainer in a NATA-approved allied health setting such as the Temple University Sports Medicine Clinics. Students perform athletic training duties under the supervision of certified athletic trainers and orthopedic surgeons.

Repeatability: This course may be repeated for additional credit.

KINS 9301. Motor Development. 3 Credit Hours.

This course is designed to study human movement across the lifespan through the review and critique of major theoretical positions and the analysis of selected movement patterns.

Repeatability: This course may not be repeated for additional credits.

KINS 9302. Motor Learning. 3 Credit Hours.

This course is designed to study the acquisition and retention of motor skills as related to practice schedules, information processing, and motor control.

Repeatability: This course may not be repeated for additional credits.

KINS 9311. Biomechanics: Human Movement. 3 Credit Hours.

This course offers an assessment of research in the biomechanics of human motion, including electromyography, muscle modeling, link segment modeling and analysis, and energy and power analysis. The above concepts are utilized in the assessment of both normal and atypical populations in sport and rehabilitation contexts.

Repeatability: This course may not be repeated for additional credits.

KINS 9401. Psychological Bases of Motor Behavior. 3 Credit Hours.

This course focuses on the psychology of motor behavior, with particular emphasis on motor learning and motor development.

Repeatability: This course may not be repeated for additional credits.

KINS 9402. Psychology of Human Motivation and Development. 3 Credit Hours.

This course focuses on the basic psychological variables that influence, and are influenced by, human movement. A diverse set of topics within exercise and sport psychology is explored.

Repeatability: This course may not be repeated for additional credits.

KINS 9403. Sociology of Kinesiology. 3 Credit Hours.

This course focuses on the social structural/contextual variables that influence, and are influenced by, human movement. Among the variables examined are socioeconomic status, gender, race, ethnicity, sexual preference, dominant-subordinate perceptions, and value formation and conflict.

Repeatability: This course may not be repeated for additional credits.

KINS 9404. Exercise and Mental Health. 3 Credit Hours.

This course provides the student with a background in theory, research, and applied work in the relationship between exercise and mental health.

Repeatability: This course may not be repeated for additional credits.

KINS 9407. Obesity and Eating Disorders. 3 Credit Hours.

This course aims to provide a comprehensive understanding of obesity and eating disorders. It focuses on kinesiology and its relation to the etiology of the disorder, its prevalence, classification, diagnosis, treatment and prevention. These issues are discussed in terms of their psychosocial, behavioral, and physiological aspects.

Repeatability: This course may not be repeated for additional credits.

KINS 9683. Mentored Research I. 3 Credit Hours.

This course exposes the Ph.D. student to the basic nature of behavioral and somatic science research. Learning experiences consist of journal article review, laboratory/field techniques, and subject or data collection exposure as directed by faculty mentors.

Repeatability: This course may be repeated for additional credit.

KINS 9783. Mentored Research II. 3 Credit Hours.

This course provides the Ph.D. student with the opportunity to be involved in research, under the direction of the faculty mentor, as the assistant project director and as the project director for pilot studies. The student gains experience in these roles with close supervision by the faculty mentor.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of B- in KINS 9683.

KINS 9785. Internship in Kinesiology. 3 to 6 Credit Hours.

This course provides supervised field and/or clinical experiences in psychological aspects of sport/physical activity, and exercise science.

Repeatability: This course may be repeated for additional credit.

KINS 9882. Independent Research. 1 to 12 Credit Hour.

This course allows students to engage in independent research. Students present a proposal to the instructor, who advises them on their project. Prior to registration, students obtain a letter of agreement from the department chair indicating the number of credits involved.

Repeatability: This course may be repeated for additional credit.

KINS 9901. Research Methods in Kinesiology. 3 Credit Hours.

This course focuses on basic understanding of research methods and related techniques necessary to evaluate research literature in physical education and related fields. Attention is given to the selection of research problems.

Repeatability: This course may not be repeated for additional credits.

KINS 9994. Preliminary Examination Preparation. 1 to 3 Credit Hour.

This course is for students who have completed all coursework and have not passed the preliminary examination.

Repeatability: This course may be repeated for additional credit.

KINS 9995. Master's Research in Kinesiology. 1 to 3 Credit Hour.

This course is open to Master of Science candidates doing either the project option or the first three credits of the thesis option.

Repeatability: This course may be repeated for additional credit.

KINS 9996. Master's Thesis in Kinesiology. 1 to 3 Credit Hour.

This course is open only to Master of Science candidates completing the last three credits of the thesis option.

Repeatability: This course may be repeated for additional credit.

KINS 9998. Dissertation Proposal Research. 1 or 2 Credit Hour.

This course supports preparation of the dissertation proposal. The course is required for students who have passed the preliminary examinations for their PhD program and who have not yet defended the dissertation proposal.

Repeatability: This course may be repeated for additional credit.

Pre-requisites: Minimum grade of P in KINS 9994.

KINS 9999. Doctoral Dissertation in Kinesiology. 1 to 9 Credit Hour.

This course is limited to candidates for the doctoral degree. This offers continuous registration during the fall and spring terms as required from after completion of the preliminary examination until the dissertation has been completed and accepted by the graduate faculty.

Repeatability: This course may be repeated for additional credit.