

KINES 144. Field Experience in Teaching (3)

Prerequisites: KINES 20, 25, 31, 32, 33, 35, 110, 116, 118, 120, 122, 123, 131; KAC Area A and B. Open only to kinesiology majors with options in physical education. Supervised placement in physical education instructional settings at the elementary, middle, and high school levels. Includes a variety of practical learning experiences and seminar discussions. *CR/NC* grading only. (3 hours undergraduate seminar education workshop) FS

KINES 148. Biophysical Aspects of Aging (3)

(Same as GERON 148.) Theories of aging, biological mechanisms of the aging process, and the role of physical activity in those physiological functions influenced by age. S

KINES 152. Physical Education for Children (3)

Prerequisite: minimum of junior standing. Theory, analysis, and study of movement experiences, skills and materials, appropriate for elementary level school children. (2 lecture, 2 lab hours) FS

KINES 159. Measurement and Evaluation (3)

Prerequisites: KINES 20, 25, 31, 32, 33, 35, 104, 110, 116, 118, 120, 122, 123, 131; KAC Area A and B. Selection, adaptation, and development of appropriate measurement instruments and strategies based on physical, motor, and fitness attributes and needs of individuals and classes. Application and interpretation of basic statistical methodology. Offered spring semester only. (2 lecture, 2 lab hours) S

KINES 162. Coaching Concepts (3)

Current problems of coaches in the school setting; techniques of motivation, organization, and public relations. F

KINES 163. Fitness and Wellness (3)

Prerequisite: KINES 118. Study, analysis, development, and practice of health related fitness and weight control programs for various populations. (2 lecture, 2 lab hours) F

KINES 165. Performance Related Fitness (3)

Prerequisites: KINES 116, or 137; KINES 118. Physiological and biomechanical principles related to implementation of conditioning programs for athletic performance. Practical applications. Discussion of skill and performance-related components of physical fitness. (2 lecture, 2 lab hours) S

KINES 167. Integrative Exercise Science (3)

Prerequisites: KINES 104, 116, 118. Integration of humanistic, physiological, and biomechanical aspects of exercise science through lectures, readings, discussions, and writing assignments. S

KINES 180T. Topics in Kinesiology (1-3; max total 12)

Topics relating to analysis, performance, theory, current trends, and research in kinesiology not available through current curricula offerings. FS

KINES 190. Independent Study (1-3; max total 6)

See *Academic Placement—Independent Study*. Approved for *RP* grading. FS

KINES 199. Supervised Work Experience (1-2; max total 4)

Prerequisites: upper-division status, GPA 2.5 last 30 units, permission of department chair and instructor. *CR/NC* grading only. FS

GRADUATE COURSES

(See *Catalog Numbering System*.)

Kinesiology (KINES)**KINES 222. Biomechanics (3)**

Prerequisites: KINES 116 or 137. Study of physical and mechanical bases of human movement. Mechanical properties of structural and active tissues, relation of these properties to tissue function. Application of principles of physics and mechanics to human movement and sport. Kinematic analysis of sport performances.

KINES 230. Statistical Inference in Kinesiology (3)

Theory and nature of statistical inference; study of statistical methodology relating to the selection of the most appropriate statistical technique, and the interpretation of findings. Required of all M.A. candidates.

KINES 231. Research Methods in Kinesiology (3)

Seminar in research methods appropriate for physical education, exercise science, and related professions: use of information retrieval technology; critiquing, conducting and reporting research. Required of all M.A. candidates.

KINES 233. Advanced Exercise Physiology (3)

Prerequisites: KINES 118 or equivalent. Advanced concepts, mechanisms, and applications of exercise physiology. Systems physiology approach with emphasis on biophysical principles. Applications to response and adaptation to exercise, health and wellness, growth and development, and aging.

KINES 235. Exercise Physiology Instrumentation and Technology (3)

Prerequisites: KINES 118. Detailed analysis of the theory of operation, application, and operation procedures of laboratory instrumentation and technology commonly found in exercise physiology laboratories. Requires course presentations supported by extensive practical experiences in equipment operation, calibration, maintenance, and laboratory data management.

KINES 237. Design and Implementation of Resistance Training Programs (3)

Study of research findings and established scientific principles of resistance training for development of muscular strength, power, and endurance. Practical applications to technique, program development, and competition.

KINES 238. Exercise Testing, ECG, and Prescription (3)

Prerequisite: KINES 118. Detailed study of the American College of Sports Medicine Guidelines for Exercise Testing and Prescription. Theoretical concepts of screening, exercise testing, and prescribing exercise for apparently healthy populations and populations with special needs supported by extensive practical laboratory testing experiences. (2 lecture, 3 lab hours)

KINES 241. Administration in Physical Education and Sport (3)

Study of environmental factors which influence management of human resources of sport organizations in public and private sectors. Analysis and application of administrative/leadership theory to strategic planning, organizing, implementing and controlling programs in sport and physical education contexts.

KINES 242. Program Development in Physical Education (3)

Study of the current education scene to provide students with an understanding of the role that school physical education plays in today's education. Identification of sound procedure and practice in organizing and conducting relevant programs of physical education.

KINES 244. Legal Aspects in Sport and Physical Education (3)

The study of legal principles and their implications for physical education and sport. Emphasis is on safety procedures, preventative measures, and legal responsibilities of teachers, coaches, and sport administrators.

KINES 250T. Topics in Kinesiology (1-3; max total 6 if no topic repeated)

Advanced studies in theoretical research in selected topics.