2007-2009 Cal Poly Catalog
Updated Course Descriptions.
See catalog pages as printed for original descriptions.

Kinesiology Department

KINE—KINESIOLOGY

(See also PE—Physical Education)

PROFESSIONAL ACTIVITIES

Priority for enrollment given to those students pursuing a major in Kinesiology. Kinesiology majors may apply a maximum of 24 units of credit earned in PE 101-199 or KINE 208-239 toward the bachelor's degree. When applicable, course selection should be determined by students after consultation with their advisor. All courses are one or two units and meet for two or four hours per week. The primary purpose of all professional activities is for students to attain intermediate skills in performance and analysis and knowledge of rules and strategy. Secondary purposes may include leadership and teaching experiences. In some classes a beginning level activity class (see Physical Education) will be recommended for individuals who have little or no previous experience.

KINE 208 Golf (1)
KINE 210 Tennis (1)
KINE 211 Softball—Baseball (1)
KINE 212 Handball/Racquetball (1)
KINE 213 Basketball (1)
KINE 214 Volleyball (1)
KINE 216 Wrestling (1)
KINE 217 Flag Football/Football (1)
KINE 218 Aquatics (2)
KINE 219 Progressive Strength Training (1)
KINE 220 Group Fitness Activities (2)
KINE 221 Combatives/Self Defense (1)
KINE 222 Archery (1)
KINE 223 Cross Country and Track Events (1)
KINE 224 Field Events (1)
KINE 225 Team Handball (1)
KINE 226 Soccer (1)
KINE 227 Aerobic Dance Exercise (2)
KINE 228 Cooperative Games and Activities (1)
KINE 229 Badminton (1)

ACADEMIC COURSES

Professional courses designed primarily for the student majoring in kinesiology.

KINE 241 Understanding Fitness and Training (1)
Introduction to physiological principles and factors which provide the basis for the development and maintenance of optimal physical fitness. 1 lecture. Prerequisite: Concurrent enrollment in one course in the PE 101-199 series, or consent of instructor.

KINE 250 Healthy Living (4) GE D4
Personal health with emphasis on healthful behavioral practices including physical fitness, nutrition, psychosocial well-being, alcohol and other drugs, intentional and unintentional injury, reproductive health, infectious and non-infectious diseases. 4 lectures. Not open to students with credit in KINE 255.

KINE 255 Personal Health: A Multicultural Approach (4) GE D4 USC
Personal health with special emphasis on multicultural practices. Not open to students with credit in KINE 250. 4 lectures.

KINE 270 Orientation to Kinesiology (4)
Designed to acquaint the student with disciplinary and professional perspectives in kinesiology, computer applications, and the Kinesiology program at Cal Poly. 4 lectures.

KINE 275 Sports Officiating (2)
Designed to provide knowledge, understanding, appreciation of officiating in general, and the development of skills in officiating. 1 lecture, 1 activity.

KINE 276 Athletic Coaching Theory (3)
Basic concepts, methods, practices, strategies and philosophies as they apply to competitive athletics. 3 lectures.

KINE 277 Coaching Practicum (2–6) (CR/NC)
Practical experience through the actual coaching of a competitive sports team. 2–6 activities; minimum of 2 hours per week per unit. Total credit limited to 6 units. Credit/No Credit grading only. Learning outcomes must be developmental if more than one practicum is completed. Prerequisite: KINE 276 and consent of advisor.

KINE 280 First Aid/CPR (1) (CR/NC)
An American Red Cross certification course in Standard First Aid Adult/Child/Infant CPR. Skills and knowledge necessary in the treatment of life-threatening emergencies and other injuries and sudden illnesses. Red Cross First Aid/CPR certifications issued upon successful completion of certification requirements. Credit/No Credit grading only. 1 activity.

KINE 300 Planning Techniques in Physical Education (3)
Practical skills and techniques of teaching physical education in schools. Unit and lesson planning, class management, implementation and evaluation of a lesson in a laboratory setting. 2 lectures, 1 laboratory. Prerequisite: KINE 270 and 2 courses from KINE 208-KINE 229 or equivalent. Concurrent: KINE 306.

KINE 301 Functional Muscle Anatomy (1)
Functional organization of the human muscular system. All major muscle groups, with emphasis on segmental motion. 1 laboratory. Prerequisite: KINE 270, ZOO 331 or concurrent enrollment.

KINE 302 Biomechanics (4)
Fundamental biomechanical concepts and their application to human movement activities, and analyses of exercise mechanics and skill performance. 3 lectures, 1 laboratory. Prerequisite: ZOO 331, KINE 301, KINE 270.

KINE 303 Physiology of Exercise (4)
Application of human physiology to exercise situations. 3 lectures, 1 laboratory. Prerequisite: KINE 270, ZOO 331, 332 (or transfer equivalent).

KINE 304 Pathophysiology and Exercise (3)
Selected human diseases, their etiology, pathophysiology, symptoms, diagnosis, effects on health and physical performance, and as affected by preventive or therapeutic exercise. 3 lectures. Prerequisite: KINE 303.

KINE 305 Drug Education (2)
Instruction on the nature and effect of the use of tobacco, alcohol, narcotics and restricted dangerous drugs. 2 lectures. Prerequisite: GE Area D4.

KINE 306 Assessment in K-12 Physical Education (3)
Measurement and evaluation techniques in physical education, including statistics, computer applications, and measurement theories. Assessment tools in psychomotor, cognitive, and affective domains. 1 lecture, 2 laboratories. Prerequisite: KINE 270 and STAT 217/STAT 218. Concurrent: KINE 300.

KINE 307 Adapted Physical Activity (4)
Major categories of disabling conditions with implications for the development of physical activity programs for specific disabilities. 3 lectures, 1 laboratory. Prerequisite: KINE 270, GE Area B2 and B3, sophomore standing. Recommended: ZOO 331, 332.
KINE 308 Motor Development (3)
Motor development of individuals from birth to maturity. Emphasis on interrelationalship between motor and cognitive characteristics and affective needs and interests. 3 lectures. Prerequisite: KINE 270, GE D4 or consent of instructor.

KINE 309 Creative and Nontraditional Games (3)
Introduction of preparatory teachers to non-traditional and multicultural games and activities which address the State Framework and the National Standards. Students present the activities in a manner which demonstrates effective models of instruction, including maximum participation. 1 lecture, 2 activities. Prerequisite: KINE 300.

KINE 310 Concepts in Elementary Physical Education (2)
Movement as it relates to physical motor skill development, fitness, wellness, social development, cross-cultural understanding, and self-image. 1 lecture, 1 laboratory. Prerequisite: GE D4. Recommended: Junior standing.

KINE 315 Field Sports (3)
Introduction and preparation for teaching field sports in accordance with state and national standards for K-12 physical education programs. Students learn to present activities in a manner that reflects effective models of instruction. 1 lecture, 2 activities. Prerequisite: KINE 300.

KINE 316 Net and Wall Games (3)
Introduction and preparation for teaching net and wall games in accordance with state and national standards for K-12 physical education programs. Students learn to present activities in a manner that reflects effective models of instruction. 1 lecture, 2 laboratories. Prerequisite: KINE 300, KINE 306.

KINE 317 Computer Applications in Kinesiology (2)
Applications of computers, data processing and information technology as related to understanding and solving problems in the field of kinesiology. Total credit limited to 4 units. 2 activities. Prerequisite: Basic computer literacy.

KINE 319 Measurement and Evaluation in Kinesiology (4)
Principles of test selection and administration, measurement and evaluation of data characteristics, and data analysis related to motor behavior and the performance of physical skills. 3 lectures, 1 activity. Prerequisite: KINE 270, STAT 217 or STAT 218.

KINE 323 Sport and Gender (4)  GE D5 USCP
Intersections between sport and gender in American society. Identification and discussion of the historical, sociological and psychological issues that affect the sport experiences of males and females, especially as they relate to class, race/ethnicity, sexuality, and political movements. 4 lectures. Prerequisite: Completion of GE Areas A, D1 and either D3 or D4. Kinesiology majors will not receive GE Area D5 credit.

KINE 324 Sport, Media and American Popular Culture (4)  GE D5 USCP
Issues of class, race/ethnicity, gender, various forms of deviance, and other aspects of social life. Exploration of sociological manifestations and implications of how the aforementioned social issues are embedded in mediated forms of sports. Kinesiology majors will not receive GE Area D5 credit. 3 lectures, 1 activity. Prerequisite: Completion of GE Areas A, D1 and D3.

KINE 354 Health Education Strategies (2)
Introduction to health promotion services, environment, and instruction within public and private settings. Strategies, methods, technology and resources used in the design and delivery of health education about infectious and non-infectious diseases. 2 activities. Prerequisite: BIO 111/BIO 115, KINE 250 or KINE 255.

KINE 384 Water Safety Instructor (4)
Analysis of swimming strokes and techniques with emphasis on teaching methods for beginners through advanced swimmers. Those students who complete the course requirements are eligible for American Red Cross Water Safety Instructor certification. 2 lectures, 2 activities. Prerequisite: Demonstrate proficiency in swimming or instructor permission.

KINE 396 Outdoor Education (3)
Introduction and preparation for teaching Outdoor Education activities in accordance with the Physical Education Content Standards for California. Students learn to present activities in a manner that reflects effective models of instruction. Includes a clinical teaching experience. 1 lecture, 2 activities. Prerequisite: KINE 300, KINE 306, and KINE 384.

KINE 400 Special Problems for Advanced Undergraduates (1–3)
Individual investigation, research, studies, or surveys of selected problems. Total credit limited to 6 units, with a maximum of 3 units per quarter. Prerequisite: Senior standing or consent of instructor.

KINE 401 Managing Kinesiology Programs (3)
Planning, organizing and controlling programs in public, commercial, private and clinical physical activity settings. Emphasis on legal, ethical and budgetary considerations. 3 lectures. Prerequisite: Senior standing or consent of instructor.

KINE 402 Motor Learning and Control (4)
Variables which control sensory-motor integration. Analysis of factors which affect the acquisition of motor skills as related to the learning process and the learning environment. 3 lectures, 1 activity. Prerequisite: STAT 217 or KINE 319 or consent of instructor.

KINE 405 Community Health Promotion (4)
Practices to educate and empower communities toward actions that resolve health issues and problems. Sociological, historical, educational, environmental and biological influences on health status. 3 lectures, 1 activity. Prerequisite: KINE 250 or KINE 255 and GE Areas A and D3, junior standing.

KINE 406 Neuroanatomy (4)
Structure and function of the human nervous system. Affereent and efferent pathways involved in perception and action. Behavioral aspects of motor control and related neurological dysfunction and pathologies. Designed for allied health professions students. 4 lectures. Prerequisite: ZOO 331 and ZOO 332.

KINE 408 Exercise and Health Gerontology (4)
Special fitness, exercise, and health needs of older adults. Theories of aging and age-related changes. Health and physical activity programs for older adults. 3 lectures, 1 activity. Prerequisite: KINE 250 or KINE 255, and one of the following: KINE 220, KINE 227, KINE 228, or KINE 219, senior standing or consent of instructor. Changed effective Fall 2008.

KINE 410 Psychology of Coaching (3)
Psychological considerations of the coach-athlete relationship and mental preparation of teams and individuals for competition and practice. Special emphasis on the male and female adolescent with regard to the psychological implications of sports participation. 3 lectures. Prerequisite: Junior standing. Recommended: PSY 201 or PSY 202.

KINE 411 Psycho/Social Aspects of Physical Activity (4)
Psychological and sociological effects of physical activity on individuals and groups in American society. 4 lectures. Prerequisite: KINE 270 and junior standing. Recommended: Completion of GE Areas A and D3; PSY 201 or PSY 202.

KINE 416 Physical Education/Recreation Facilities (3)
Management, clientele considerations, facilities and outdoor areas planning and operations, personnel, finance and equipment as related to physical education and recreation areas and facilities. Consideration of architectural and environmental barriers. Field visits required. 3 lectures. Prerequisite: Upper division standing and consent of instructor for non-KINE/REC majors.

KINE 419 Physical Education Program Content in the Elementary School (3)
Cognitive and psychomotor competencies required to design a developmental physical education program for elementary aged school children. 2 lectures, 1 activity. Prerequisite: KINE 300 and two activity classes.
KINE 421 Strategies for Teaching Physical Education (3)
Systematic analysis and refinement of teaching skills within the discipline of physical education. 2 lectures, 1 activity. Prerequisite: KINE 419.

KINE 422 Teaching Elementary School Physical Education (4)
Implementation of a developmental physical education program for elementary aged children. The program will complement that conducted in the local public schools. 1 lecture, 1 seminar, 2 laboratories. Prerequisite: KINE 421.

KINE 423 Teaching Middle School Physical Education (4)
Techniques for teaching physical education in middle school. Emphasis on class organization, lesson plan development and evaluation, class management and control, and understanding the middle school setting. For students teaching middle school physical education in the local public schools. 1 lecture, 1 seminar, 2 laboratories. Prerequisite: KINE 422.

KINE 424 Organization and Implementation of a K-12 Physical Education Program (4)
Methods of teaching K-12 physical education, with emphasis on alignment with the California Physical Education Challenge Standards, English language learners, special students, and educational technologies. 4 lectures. Prerequisite: KINE 425 or consent of instructor.

KINE 425 Teaching High School Physical Education (4)
Techniques for teaching physical education in high schools. Emphasis on teaching strategies, organization, lesson plan development, self-evaluation, class management, and behavior management. 1 seminar, 1 lecture, 2 laboratories. Prerequisite: KINE 423, and one 300-level activity class.

KINE 426 Senior Seminar (2)
Capstone course which engages students in activities that integrate the sub-disciplines of kinesiology, and facilitates the development of a personal portfolio. 2 seminars. Prerequisite: Senior standing.

KINE 434 Health Promotion Program Planning: Theory and Practice (4)
Theory and methods to facilitate individual and group behavior change to promote health and prevent disease. Concepts from behavioral sciences, health behavior theory, motivation, and decision making. Development of planning and evaluation skills. 3 lectures, 1 laboratory. Prerequisite: KINE 250 or KINE 255, completion of GE Areas A and D3, and junior standing.

KINE 437 Directed Fieldwork (1–3) (CR/NC)
Practical work experience in related activities of kinesiology under qualified supervision. Total credit limited to 9 units. Credit/No Credit grading only. Minimum of 2 laboratory hours per week per unit. Prerequisite: Senior standing or consent of instructor.

KINE 438 Adapted Physical Activity Fieldwork (1–3) (CR/NC)
Practical experience in adapted physical activity programming. Students plan and conduct physical activity programs for people who are disabled. Total credit limited to 6 units. Credit/No Credit grading only. Prerequisite: KINE 307, and consent of instructor.

KINE 440 Physical Education Practicum (1)
Supervised experience involving organizational and instructional responsibilities in activity, lecture and/or laboratory classes as determined by curricular concentration or certificate program. Total credit limited to 3 units. Prerequisite: Consent of instructor.

KINE 443 Comprehensive School Health Education (4)
Course content includes the health status of children K-12, and the recommendations of the California Health Framework. 4 lectures. Prerequisite: KINE 250 or KINE 255.

KINE 445 Electrocardiography (4)
Basic principles of electrocardiography, including practical skills of the ECG technician. Recognition of normal ECG patterns and abnormalities, including those caused by pathology and exercise conditioning. 2 lectures, 2 laboratories. Prerequisite: KINE 445 or consent of instructor.

KINE 450 Worksite Health Promotion Programs (3)
Designed to acquaint students with those events, situations and relationships leading to healthy lifestyles in fitness and occupational settings. Design and implementation of workplace health promotion programs. 3 lectures. Prerequisite: KINE 250 or KINE 255, KINE 434, and senior standing.

KINE 451 Nutrition for Fitness and Sport (5)
Application of nutritional and metabolic facts to selected aspects of physical training, degenerative disease, obesity and weight control, diet manipulation and modification in sport, nutritional supplementation and special dietary considerations for the young and old, male and female athletes. 5 lectures. Prerequisite: KINE 250 or KINE 255, KINE 303. Recommended: CHEM 313.

KINE 452 Testing and Exercise Prescription for Fitness Specialists (4)
Selected areas of health/fitness screening and evaluation. Application of components relevant to the development and administration of exercise programs for persons regardless of sex, age, functional capacity and presence or absence of CHD or CHD risk factors. 2 lectures, 2 laboratories. Prerequisite: KINE 303, KINE 445 (or concurrent enrollment in KINE 445) or consent of instructor.

KINE 460 Senior Project (1)
Comprehensive report, or a field experience, or a synthesis of professional literature that integrates content from kinesiology courses. Topic must be approved by the instructor. 1 laboratory. Prerequisite: KINE 319 and completion of GE Area A.

KINE 462 Research Honors Senior Project (2–4)
Completion of an advanced research, or creative project. Intended for students taking a significant or leadership role in a professional area. Results may be submitted for poster presentation or other public/professional forum. 2-4 laboratories (minimum 60 hours). Prerequisite: KINE 319, completion of GE Area A, and consent of instructor.

KINE 463 Exercise Science and Health Promotion Fieldwork (3) (CR/NC)
200 hours of concentration specific practical experience over a ten-week period at an approved agency that provides exercise/fitness/health promotion programs. Students participate in program administration under the direct supervision of an approved on-site coordinator. Credit/No Credit grading only. Prerequisite: Senior standing, minimum GPA of 2.0, successful completion of all concentration coursework requirements and consent of fieldwork coordinator.

KINE 470 Selected Advanced Topics (1–4)
Directed group study of selected topics for advanced students. The Schedule of Classes will list topic selected. Total credit limited to 8 units. 1–4 lectures. Prerequisite: Consent of instructor.

KINE 471 Selected Advanced Laboratory (1–4)
Directed group laboratory study of selected topics for advanced students. The Schedule of Classes will list topic selected. Total credit limited to 8 units. 1–4 laboratories. Prerequisite: Consent of instructor.

KINE 485 Cooperative Education Experience (6) (CR/NC)
Part-time work experience in business, industry, government, and other areas of student career interest. Positions are paid and usually require relocation and registration in course for two consecutive quarters. Formal report and evaluation by work supervisor required. Total credit limited to 16 units. Credit/No Credit grading only. Prerequisite: Sophomore standing and consent of instructor.
KINE 495 Cooperative Education Experience (12) (CR/NC)
Full-time work experience in business, industry, government, and other areas of student career interest. Positions are paid and usually require relocation and registration in course for two consecutive quarters. Formal report and evaluation by work supervisor required. Total credit limited to 16 units. Credit/No Credit grading only. Prerequisite: Sophomore standing and consent of instructor.

KINE 500 Individual Study (1–3)
Advanced study planned and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition. Only 6 units may be applied to degree requirements. Prerequisite: KINE 517 and consent of department head, graduate advisor, and supervising faculty member.

KINE 501 Evaluation of Current Studies (3)
Analysis and evaluation of published studies in kinesiology. 3 seminars. Prerequisite: Graduate standing.

KINE 502 Current Trends and Issues in Physical Education and Sport (3)
Practical problems in physical education and sport and their solution in terms of desired objectives in these fields. 3 seminars. Prerequisite: Graduate standing.

KINE 503 Current Health Issues (3)
Advanced seminar investigating current health issues. Factors that influence health status, current and historical trends in health and disease, and the healthcare system in the U.S. 3 seminars. Prerequisite: KINE 250 or KINE 255 and graduate standing or consent of instructor.

KINE 504 Advanced Pathophysiology and Exercise (3)
Selected human diseases, their etiology, pathophysiology, symptoms, diagnosis, effects on health and physical performance, and as affected by preventive or therapeutic exercise. Not open to students with credit for KINE 304. 3 lectures. Prerequisite: KINE 303 or equivalent, and graduate standing.

KINE 505 Introduction to Issues, Ethics and Policies in Teaching (1) (CR/NC)
Knowledge and skills of teaching at the college level. Preparation and support for teaching activity and laboratory classes in the department. Prepares students to be supervisors and teachers in their current or future employment. Credit/No Credit grading only. 1 seminar. Prerequisite: Graduate standing.

KINE 510 Health Behavior Change (3)
Examination of contemporary research, theory and practice related to facilitating healthy behavior change. Analysis of health problems from biological, ecological, and psycho-social perspectives with emphasis on understanding the acquisition and maintenance of healthy behavior. 3 seminars. Prerequisite: KINE 250 or KINE 255, KINE 503 or KINE 504.

KINE 511 Administration and Leadership in Kinesiology (3)
Principles and techniques of administration in health, activity and academic settings including budget, personnel supervision, resource acquisition, leadership techniques, and facility management. 3 seminars. Prerequisite: KINE 250 or KINE 255, KINE 503 or KINE 504.

KINE 517 Research Methods in Kinesiology (3)
Experimental, descriptive, historical, philosophical, survey, and action research in kinesiology. Selection of adequate problems for investigation; various sampling techniques and analyses; use of library facilities; manuscript requirements for the thesis. 3 seminars. Prerequisite: KINE 501 or consent of instructor.

KINE 518 Research Prospectus and Proposal Writing (2) (CR/NC)
Strategies for identifying academically valid research topics. Planning considerations for qualitative and quantitative research including grant writing, human subjects review, personnel, equipment, and timelines. Design and composition of effective research proposals. Credit/No Credit grading only. 2 seminars. Prerequisite: KINE 517. New course effective Spring 2009.

KINE 522 Advanced Biomechanics (4)
Advanced biomechanical concepts applied to human movement, examination of research, and biomechanical analyses of movement activities. Performance, occupational, and clinical settings. Laboratory techniques including motion analysis, force platform, and electromyography. 3 seminars, 1 laboratory. Prerequisite: KINE 302 or equivalent. Changed effective Fall 2008.

KINE 525 Advanced Motor Learning and Control (3)
Analysis of control theories, research principles and motor learning variables involved in the acquisition of skilled movement with an emphasis on the behavioral level of learning. 3 seminars. Prerequisite: KINE 402 or equivalent.

KINE 526 Sport and Exercise Psychology (3)
Theoretical and professional issues in the psychological foundations of sport and exercise. 3 seminars. Prerequisite: Graduate standing or consent of instructor. Corrected effective Summer 2007.

KINE 530 Advanced Physiology of Exercise (4)
Physiological determinants of physical work capacity and sports performance. 3 seminars, 1 laboratory. Prerequisite: KINE 303 and graduate standing.

KINE 534 Advanced Health Promotion Program Planning: Theory and Practice (4) (formerly KINE 514)
Theory and methods to facilitate individual and group behavior change to promote health and prevent disease. Concepts from behavioral sciences, health behavior theory, motivation, and decision making. Development of planning and evaluation skills. Not open to students with credit in KINE 434. 3 lectures, 1 laboratory. Prerequisite: KINE 250 or KINE 255; KINE 503 or KINE 504, and graduate standing. Changed effective Fall 2008.

KINE 536 Advanced Electrocardiography (4)
Theory and application of electrocardiography and other techniques for cardiovascular assessment and treatment of cardiac disease and other abnormalities. 3 seminars, 1 laboratory. Prerequisite: KINE 445 or equivalent and graduate standing.

KINE 537 Internship (3–12) (CR/NC)
Supervised work experience in an approved wellness/fitness clinical facility, school, or other faculty approved setting. Total credit limited to 12 units. Maximum of 6 units may be applied toward Master of Science in Kinesiology. Credit/No Credit grading only. Prerequisite: Graduate standing and consent of instructor. Student must be advanced to candidacy.

KINE 539 Effective Practice in Teaching and Coaching (3)
Observation and analysis of teaching physical education and coaching sports with special emphasis in pedagogical systems. 2 seminars, 1 laboratory. Prerequisite: Graduate standing. Changed effective Fall 2008.

KINE 581 Graduate Seminar in Kinesiology (1–3)
Directed group study of selected topics for advanced students. The Schedule of Classes will list topic selected. Total credit limited to 6 units. 1–3 seminars. Prerequisite: Graduate standing or consent of instructor.

KINE 585 Cooperative Education Experience (6) (CR/NC)
Advanced study analysis and part-time work experience in student's career field; current innovations, practices, and problems in administration, supervision, and organization of business, industry, and government. Must have demonstrated ability to do independent work and research in career field. Total credit limited to 9 units. Credit/No Credit grading only. Prerequisite: Graduate standing and consent of instructor.

KINE 599 Thesis or Project (1–6)
Completion of a thesis or project pertinent to the field of kinesiology. Independent research under the guidance of the faculty. Prerequisite: KINE 517, consent of graduate committee and supervising faculty member.