

2011-13 Cal Poly Catalog

Kinesiology Department

KINE–KINESIOLOGY

BASIC INSTRUCTIONAL PROGRAM

Enrollment is open to all students except for designated intramural courses. Courses carry 1 unit of credit, meet 2 hours per week, and are designed to develop skill, knowledge of rules, background and analysis of techniques, and desirable attitudes toward physical fitness and participation in physical activities.

The beginning course or its equivalent is prerequisite to the intermediate, and the intermediate to the advanced. Prerequisite may be waived by consent of the instructor.

No more than two different activity courses nor more than one section of an individual activity course may be taken for credit in any one quarter. A student may not enroll simultaneously in the same quarter for a beginning, intermediate and/or advanced activity course. Any level of an activity course can be repeated only once for credit.

Students not majoring in kinesiology may apply a maximum of 12 units of credit earned in general and intramural activity courses toward the bachelor's degree.

All basic instructional courses (KINE 100–176) are evaluated on a Credit/No Credit basis. A miscellaneous course fee may be required—see the Schedule of Classes.

¹ KINE 100 Adaptive Activity

KINE 104 Badminton

KINE 108 Basketball

KINE 109 Bowling

KINE 110 Cycling

KINE 111 Fencing

KINE 112 Bowling, Int.

KINE 116 Aerobic Exercise

KINE 121 Golf

KINE 122 Golf, Int.–Adv.

KINE 125 Jogging

KINE 129 Stretch, Flex and Relax

KINE 131 Physical Conditioning

KINE 132 Racquetball, Beg.

KINE 133 Racquetball, Int.–Adv.

KINE 137 Self-Defense

² KINE 138 Karate

KINE 139 Soccer

KINE 140 Ultimate Disc

KINE 142 Softball

KINE 143 Swimming for Non-Swimmers

KINE 147 Swim Conditioning

KINE 148 Tennis, Beg.

KINE 149 Tennis, Int.–Adv.

KINE 151 Volleyball

KINE 154 Weight Training

KINE 156 Aqua-Aerobics

KINE 176 Fitness Walking

PROFESSIONAL ACTIVITIES

Kinesiology majors only. Priority for enrollment given to those students pursuing a major in Kinesiology. Kinesiology majors may apply a maximum of 12 units of credit earned in KINE 101-176 or KINE 208-229 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. (3/13/12)

KINE 208 Golf (1)

Beginning to intermediate golf skills, rules, and etiquette including a combination of skill instruction and course play. Leadership activity

assigned. 1 activity. **Prerequisite: Kinesiology majors only—Change effective Fall 2012**

KINE 210 Tennis (1)

Beginning to intermediate tennis skills, etiquette, rules, and equipment. Singles and doubles play. Leadership activity assigned. 1 activity.

Prerequisite: Kinesiology majors only—Change effective Fall 2012

KINE 212 Racquetball (1)

Beginning to intermediate racquetball skills. Rules, regulations, basic strokes and shots, strategies and tournament play. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 213 Basketball (1)

Beginning to intermediate basketball skills. Skill development, knowledge of rules, advanced strategies for playing basketball. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 214 Volleyball (1)

Beginning to intermediate volleyball skills. Basic fundamentals, rules, regulations, strategies, skill development and games. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 216 Wrestling (1)

Beginning to intermediate skills. Basic fundamentals of wrestling, rules and regulations. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 221 Combatives/Self Defense (1)

Beginner skills emphasizing offensive and defensive techniques for self-protection. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 223 Cross Country and Track Events (1)

Beginning to intermediate skills in performance and analysis. Knowledge of rules and strategies. Development of skills and knowledge relating to performance, training, and scoring for cross-country and track running events. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 224 Field Events (1)

Intermediate skills in performance and analysis. Knowledge of rules and strategies. Development of skills relating to performance, training, and scoring track field events. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 226 Soccer (1)

Development of beginning and intermediate skills. Rules, regulations and game play. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 227 Aerobic Dance and Activities (2)

Development of instructional competency in the basic components of aerobic exercise, specifically relating to aerobic dance. Emphasis on warm-up, cardiovascular fitness, heart-rate monitoring, dance choreography, elements of higher risk stretching, relaxation protocols and equipment. 2 activities. Prerequisite: Kinesiology majors only.

KINE 228 Cooperative Games and Activities (1)

Introduction of a variety of cooperative games. Non-traditional movement experiences designed to enhance social, cognitive, and physical development. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

KINE 229 Badminton (1)

Beginning and intermediate skills. Rules, regulations and strategies for competition. Leadership activity assigned. 1 activity. **Prerequisite: Kinesiology majors only. Change effective Fall 2012**

¹ Prerequisite for KINE 100: Consent of instructor.

² KINE 138 meets 3 hours per week.

ACADEMIC COURSES

Professional courses designed primarily for the student majoring in kinesiology.

KINE 180 Orientation to Kinesiology (3) (CR/NC)

Designed to acquaint the student with disciplinary and professional perspectives in kinesiology and the Kinesiology program at Cal Poly. Credit/No Credit grading only. 3 lectures. Prerequisite: Kinesiology majors only. Formerly KINE 270.

KINE 181 First Aid/CPR/AED (1) (CR/NC)

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

KINE 230 Aquatic Fitness Activities (1)

Aquatic based resistance and cardiovascular activities for individual and group settings. Stroke development also included for front crawl, backstroke, breaststroke, butterfly, elementary backstroke and sidestroke. Must be able to swim 25 yards non-stop in order to participate. Leadership activity assigned. 1 laboratory. Prerequisite: KINE 180. Formerly KINE 218.

KINE 231 Leading Group Fitness Activities (2)

Aerobic fitness activities appropriate for large and small group exercise sessions. Development of instructional competency in the basic components of aerobic exercise, and leadership skills associated with the delivery of these activities. Emphasis on warm-up, cardiovascular fitness, heart-rate monitoring, dance choreography, elements of higher risk stretching and relaxation protocols, and equipment, and muscle conditioning. 2 activities. Prerequisite: KINE 230. Formerly KINE 220.

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: 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 or Liberal Studies majors. Fulfills GE D4.

KINE 255 Personal Health: A Multicultural Approach (4)**GE D4 USCP**

Personal health with special emphasis on multicultural practices. Not open to students with credit in KINE 250. 4 lectures. Fulfills GE D4 and USCP.

KINE 260 Women's Health Issues (4)**GE D4 USCP**

Introduction to major health issues that affect women disproportionately or differently from men. Topics include female sexual health and reproduction, exercise and eating behaviors, substance abuse, mental health and stress, and violence against women. 4 lectures. Fulfills GE D4 and USCP.

KINE 265 Introduction to Community Health Issues (4)

Introduction to community health issues and related problems. Epidemiological trends in health and disease. Sociological, educational, environmental, biological and policy influences on health status. 4 lectures. Prerequisite: KINE 180 or FSN 101; KINE 250, KINE 255, or KINE 260. Recommended: STAT 217 or STAT 218. Formerly KINE 405.

KINE 266 Introduction to 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 180 or RPTA 101 or RPTA 160. Recommended: Completion of GE Area A. Formerly KINE 411.

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 (2-3) (CR/NC)

Practical experience through the actual coaching of a competitive sports team. 2-3 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: Consent of instructor.

KINE 290 Selected Topics (1-4)

Directed group study of selected topics. The Schedule of Classes will list title selected. Total credit limited to 8 units. 1 to 4 lectures. Prerequisite: Consent of instructor.

KINE 298 Chronic and Communicable Disease Prevention (4)

Significant chronic and communicable diseases including disparities among population groups in the U.S. Social, ecological, behavioral and lifestyle factors. Primary, secondary and tertiary prevention strategies that promote health, prevent disease and improve quality of life. 4 lectures. Prerequisite: KINE 250, KINE 255, or KINE 260, and BIO 111 or BIO 161.

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. Corequisite: KINE 306.

KINE 301 Functional Muscle Anatomy (2)

Functional organization of the human muscular system. Review of all major muscle groups, with emphasis on segmental motion. 2 lectures. Prerequisite: KINE 180 or FSN 101; corequisite: BIO 432 or ZOO 231 or ZOO 331.

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: PHYS 118 or PHYS 121; KINE 301.

KINE 303 Physiology of Exercise (4)

Application of human physiology to exercise situations. 3 lectures, 1 laboratory. Prerequisite: ~~KINE 270~~ and ZOO 231 or ZOO 331 and ZOO 232 or ZOO 332. *Change effective Winter 2013.*

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 (4)

Social, biological, and psychological factors of the major drugs associated with therapeutic and recreational use and abuse in society. Topics include drug use as a social problem, theories and treatment of addiction, how drugs work, and the detrimental health effects of drug use. Emphasis on illegal and legal drugs. 4 lectures. Prerequisite: KINE 250 or KINE 255 or KINE 260 or KINE 443.

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. 2 lectures, 1 laboratory. Prerequisite: KINE 270.

KINE 308 Motor Development (3)

Motor development of individuals from birth to maturity. Emphasis on interrelationship between motor and cognitive characteristics and affective needs and interests. 3 lectures. Prerequisite: GE D4.

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 and Applications in Elementary Physical Education (3)

Movement as it relates to physical motor skill development, fitness, wellness, social development, cross-cultural understanding, and self-image. 2 lectures, 1 activity. Prerequisite: Junior standing.

KINE 311 Strength Training Instruction (1)

Proper use of weight room resistance modalities including free weights and machine based exercises. Emphasis on effective and safe methods for leading individuals through an exercise session. 1 activity. Prerequisite: KINE 231, KINE 301. *Formerly KINE 219.*

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 319 Introduction to Research Methods in Kinesiology (4)

Principles of measurement and evaluation including contemporary research perspectives in kinesiology, health and exercise science. 3 lectures, 1 laboratory. Prerequisite: KINE 180, STAT 217 or STAT 218.

KINE 320 Media and Technology in Science and Human Performance (4)

Applications of computers, electronic media and information technology as related to understanding and solving problems in the field of kinesiology and human performance. Projects include white papers, digital video, ePortfolios, and blogs. 3 lectures, 1 laboratory. Prerequisite: KINE 180 (formerly KINE 270) ~~KINE 265 and KINE 266, junior standing, and completion of GE Area A and basic computer literacy.~~ *Change effective Spring 2012*

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: Junior standing; completion of GE Areas A, D1 and either D3 or D4. Fulfills GE D5 except for Kinesiology majors. Fulfills USCP.

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. 3 lectures, 1 activity. Prerequisite: Junior standing; completion of GE Areas A, D1 and D3. Fulfills GE D5 except for Kinesiology majors. Fulfills USCP.

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: Consent of instructor.

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: KINE major and senior standing.

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 STAT 218 or STAT 221 or equivalent coursework.

KINE 406 Neuroanatomy (4)

Structure and function of the human nervous system. Afferent 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 407 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 B2, GE B3, sophomore standing.

KINE 408 Exercise and Health Gerontology (4)

Special fitness, exercise, and health needs of elder adults. Theories of aging and age-related changes. Health and physical activity programs for elder adults. 3 lectures, 1 activity. Prerequisite: KINE 250, ~~or~~ KINE 255 or KINE 260; and ~~one of the following: KINE 219, KINE 220, KINE 227, or KINE 228, KINE 231 (formerly KINE 220) or KINE 311 (formerly KINE 219).~~ *Change effective Winter 2013.*

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 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 I (4)

Introduction to theory and methods to facilitate individual and group behavior change to promote health and prevent disease. Concepts from behavioral sciences and theories of health behavior change. Development of needs assessment and health promotion program design skills. 3 lectures, 1 laboratory. Prerequisite: KINE 250 or KINE 255 or KINE 260, KINE 265, and junior standing.

KINE 435 Health Promotion Program Planning II (4)

Planning, implementation and evaluation of health promotion programs in school, community, medical, public health, worksite, and college/university settings. Planning, intervention design, implementation and design of evaluation protocols including process, impact and outcome assessments. 3 lectures, 1 laboratory. Prerequisite: KINE 265, KINE 298, KINE 319, and KINE 434.

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 407.

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 Health Education for Teachers (4)

The health status, special concerns and national health objectives for school aged children. Coordinated school health programs and California Health Framework. Health, nutrition, safety, alcohol, tobacco and other drugs, reproductive health, and chronic disease prevention. Satisfies CCTC requirement for credential. 4 lectures. Prerequisite: GE B2, D4 and junior standing.

KINE 445 Electrocardiography (4)

Basic principles of electrocardiography, including practical skills of the ECG technician. Recognition of normal ECG patterns and abnormal changes related to rhythm disturbances, conduction defects, myocardial ischemia/infarction, and exercise. 3 lectures, 1 laboratory. Prerequisite: KINE 303 or consent of instructor.

KINE 446 Echocardiography (4)

Basic principles of echocardiography, including practical skills of the echocardiographer. Recognition of normal echocardiographic patterns and abnormalities, including those caused by pathology and exercise conditioning. 2 lectures, 2 laboratories. Prerequisite: KINE 445 or consent of instructor.

KINE 449 Exercise Prescription and Leadership (4)

Use of medical history, physical examination, laboratory and exercise testing data for establishment of appropriate exercise programs for healthy adults and those with chronic and acute disease. Exercise leadership for normal and clinical populations. 3 lectures, 1 laboratory. Prerequisite: KINE 230, KINE 231, KINE 304 and KINE 311.

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 or KINE 260, and senior standing.

KINE 451 Nutrition for Fitness and Sport (3)

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. 3 lectures. Prerequisite: KINE 250, KINE 255 or KINE 260; KINE 303. Recommended: FSN 210.

KINE 452 Exercise Testing and 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 453 Lifestyle Prescriptions for Wellness (3)

Understanding weight, physical activity, and dietary recommendations for diverse patient populations. Effectively communicating with patients. Promoting health behaviors in multidisciplinary exercise science and health promotion settings. 3 lectures. Prerequisite: FSN 210 or FSN 250, and KINE 298, KINE 304.

KINE 454 Exercise Metabolism (3)

Advanced understanding of endocrine, metabolic, and physiological responses to physical activity, exercise and nutrition. How physical activity impacts human storage, delivery, and use of fuel required for energy conversion. 3 lectures. Prerequisite: KINE 303 and CHEM 312 and CHEM 313. Recommended: KINE 304.

KINE 460 Experiential Senior Project (1) (CR/NC)

A comprehensive applied capstone experience that integrates content from Kinesiology courses under faculty supervision. Projects must be approved by the supervising faculty member. Minimum 30 hours. Credit/No Credit grading only. 1 laboratory. Prerequisite: KINE 319, completion of GE Area A, and senior standing.

KINE 461 Senior Project Report (1)

A comprehensive synthesis of professional literature that integrates content from kinesiology courses resulting in a report. Topic must be approved by the instructor. Minimum 30 hours. Prerequisite: KINE 319 and completion of GE Area A.

KINE 462 Research Honors Senior Project (1-2)

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. Total credit limited to 4 units. 1-2 laboratories (minimum 30 hours). Prerequisite: KINE 319, completion of GE Area A, and consent of instructor.

KINE 463 Exercise Science and Health Promotion Fieldwork (1-3) (CR/NC)

Practical experience 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. Total credit limited to 3 units. Prerequisite: Junior or senior standing and minimum GPA of 2.0.

KINE 470 Selected Advanced Topics (1–4)

Directed group study of selected topics for advanced students. The Schedule of Classes will list title 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 title 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. Major credit limited to 6 units; total credit limited to 12 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. Major credit limited to 12 units; total credit limited to 24 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, graduate standing, and consent of instructor.

KINE 501 Evaluation of Literature and Current Trends in Kinesiology (3)

Analysis and evaluation of published studies and current trends in kinesiology. 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 or KINE 260 and graduate standing.

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 or KINE 260 and KINE 503 or KINE 504 and graduate standing.

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: Graduate standing.

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.

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.

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.

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)

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 503 or KINE 504 or KINE 510; graduate standing.

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.

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; consent of instructor.

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.

KINE 570 Selected Advanced Topics (4)

Directed group study of selected topics for graduate students. Open to undergraduate and graduate students. The Schedule of Classes will list title selected. Total credit limited to 8 units. 4 lectures. Prerequisite: Graduate standing.

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.

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.

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, KINE 518 and **consent of instructor graduate standing. Change effective Winter 2012.**