

# Kinesiology (KINE)

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## Courses

### **KINE 1010A. Individual and Dual Activities: Badminton. Unit: 1**

Development of basic skills, techniques, rules and strategies through instruction and practice in a variety of individual and dual type sports and activities. Formerly known as KINE 101B; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1010B. Individual and Dual Activities: Pickleball. Unit: 1**

Development of basic skills, techniques, rules and strategies through instruction and practice in a variety of individual and dual type sports and activities. Can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1010D. Individual and Dual Activities: Bowling. Unit: 1**

Open to all CSUSB students. Development of basic skills, techniques, rules, and strategies through instruction and practice in a variety of individual and dual type sports and activities. May be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1010E. Individual and Dual Activities: Tennis. Unit: 1**

Development of basic skills, techniques, rules and strategies through instruction and practice in a variety of individual and dual type sports and activities. Formerly KINE 101S; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1140A. Physical Fitness and Conditioning Activities: Body Conditioning. Unit: 1**

Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Formerly KINE 114A; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1140B. Physical Fitness and Conditioning Activities: Independent Activity. Unit: 1**

Open to all CSUSB students. Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Can be repeated for credit. Graded ABC/No Credit.

### **KINE 1140C. Physical Fitness and Conditioning Activities: Jogging. Unit: 1**

Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Formerly KINE 114C; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1140D. Physical Fitness and Conditioning Activities: Weight Training. Unit: 1**

Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Formerly KINE 114E; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1140E. Physical Fitness and Conditioning Activities: Yoga. Unit: 1**

Principles, practices and individual evaluation in a variety of fitness and conditioning activities. Formerly KINE 114F; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1200A. Somatic and Martial Arts Activities: Aikido. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected combative and martial arts movement forms. Formerly KINE 120A; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1200E. Somatic and Martial Arts Activities: Karate. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected combative and martial arts movement forms. Formerly known as KINE 120E; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1200F. Somatic and Martial Arts Activities: Self-Defense. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected combative and martial arts movement forms. Formerly known as KINE 120F; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1200G. Somatic and Martial Arts Activities: Cardio-Arts. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected combative and martial arts movement forms. Formerly known as KINE 120G; can repeat for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1200I. Somatic and Martial Arts Activities: Pilates. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected somatic and martial arts movement forms. Formerly known as KINE 120J; can repeat for credit. Graded ABC/No Credit. Materials fee required.

### **KINE 1210A. Team Activities: Basketball. Unit: 1**

Basic skills, techniques, rules and strategies of selected team sports achieved through participation. Formerly known as KINE 121A; can be repeated for credit. Graded ABC/No credit. Materials fee required.

### **KINE 1210C. Team Activities: Soccer. Unit: 1**

Basic skills, techniques, rules and strategies of selected team sports achieved through participation. Formerly known as KINE 121F; can be repeated for credit. Graded ABC/No credit. Materials fee required.

### **KINE 1210F. Team Activities: Volleyball. Unit: 1**

Basic skills, techniques, rules and strategies of selected team sports achieved through participation. Formerly known as KINE 121K; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 1370A. Aquatic Activities: Swimming. Unit: 1**

Instruction and practice of basic skills and techniques used in aquatic activities. Formerly known as KINE 137J; students can repeat for credit. Graded ABC/No credit. Materials fee required.

**KINE 1370E. Aquatic Activities: Advanced Swimming for Fitness. Unit: 1**

Instruction and practice in the basic skills and techniques utilized in selected somatic and martial arts movement forms. Intended for those who have already taken an introductory swim class or who have prior swimming ability. Advanced swimming drills and lap swim workouts. Graded ABC/No Credit. Formerly known as KINE 137L; students can repeat for credit. Materials fee required.

**KINE 1490. Independent Activity Project. Unit: 1**

The course designed to meet the individual needs of a student who is not able to participate in the general Kinesiology physical activity program due to medical conditions or other extenuating circumstances. This course will provide an individually designed physical activity experience in a least restrictive environment. A Kinesiology faculty will supervise the activity experience. Consent of the instructor is required. Formerly known as KINE 149; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 1500A. Dance Activities: Aerobic. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms. Formerly known as KINE 150A; can be repeated for credit. Graded ABC/No credit. Materials fee required.

**KINE 1500B. Dance Activities: Low-Impact Aerobic. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms. Formerly known as KINE 150B; can be repeated for credit. Graded ABC/No credit. Materials fee required.

**KINE 1500C. Dance Activities: Step Aerobic. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms. Formerly known as KINE 150C; can be repeated for credit. Graded ABC/No credit. Materials fee required.

**KINE 1500D. Dance Activities: Ballet. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms. Formerly known as KINE 150D; can be repeated for credit. Graded ABC/No credit. Materials fee required.

**KINE 1500F. Dance Activities: Jazz. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms. Formerly known as KINE 150F; can be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 1500J. Dance Activities: Sampler. Unit: 1**

Development of proficiency and practice in basic dance skills including the exploration, expression and creativity of movement as utilized in a variety of dance forms from classes 1500A-J. Formerly known as KINE 150; students can be repeated for credit. Graded as ABC/No Credit. Materials fee required.

**KINE 1600. Women's Intercollegiate Activities. Unit: 1**

Enrollment limited to members of women's intercollegiate sports such as volleyball, cross country, basketball, softball, soccer, and track & field. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Formerly KINE 160; may be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 1700. Special Topics Activities. Unit: 1**

Open to all CSUSB students. Participation and instruction of special topics in physical activity which meet the dynamic needs and/or desires of the student population. The title to be specified in advance. May be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 1900. Men's Intercollegiate Activities. Unit: 1**

Enrollment limited to members of men's intercollegiate sports such as soccer, basketball, golf, and baseball. The intercollegiate activity units may not be substituted for physical education activity units in the undergraduate degree requirements. Formerly KINE 190; may be repeated for credit. Graded ABC/No Credit. Materials fee required.

**KINE 2000. CPR and First Aid. Unit: 1**

Introduction to the emergency care and treatment of illnesses and injuries including training in cardiopulmonary resuscitation (CPR). May lead to certification in Standard First Aid from the American Red Cross and/or CPR from the American Heart Association. Formerly known as KINE 200, students cannot receive credit for both.

**KINE 2010. Introduction to Physical Activity and Health Promotion. Units: 3**

This course provides a comprehensive introduction to the evidence-based principles underlying physical activity and health promotion. Students will explore the interdisciplinary nature of kinesiology, integrating concepts of the biological impacts of physical activity on the body's functioning and the complex interplay between chronic diseases, and the principles behind developing effective behavioral strategies for diverse populations. Not intended for kinesiology majors. May be combined with KINE 2010L. Satisfies GE B2/5B.

**KINE 2010L. Introduction to Physical Activity and Health Promotion Laboratory. Unit: 1**

Semester Corequisite: KINE 2010

This laboratory course provides a comprehensive introduction to applied principles of physical activity and health promotion. The analysis of health and physical activity data through a variety of assessments will be emphasized. Students will apply the interdisciplinary nature of physical activity and health through lab activities, which includes collaborative work, physical activity participation, and technology driven results. Not intended for kinesiology majors. May be combined with KINE 2010. Materials fee required. Satisfies GE B3/5C.

### **KINE 2050. Foundations for Lifetime Fitness and Wellness. Units: 3**

Introduction and discussion of the interrelationship between physical fitness, wellness, and student success. Topics include: benefits associated with physical activity, development of healthier lifestyles, and physical fitness assessment, while developing academic and intellectual competence. Students will develop practical skills to enhance personal wellness and academic success through the examination of learning techniques and the utilization of the various university support facilities. Formerly offered as KINE 205.

### **KINE 2100. Orientation to Kinesiology. Units: 3**

Provides a historical and philosophical analysis about the evolution of Kinesiology. This course introduces students to the influences of Kinesiology through the historical and philosophical lens of physical activity, movement behavior, as well as the broader cultural philosophical, political, intellectual, and economic patterns effecting the discipline and its sub-fields. Formerly offered as a combination of KINE 210 and KINE 310; student whom earned credit for KINE 210 and KINE 310 cannot earn credit for this course.

### **KINE 2200. Medical Terminology. Units: 3**

Introduction to medical terminology using word building (roots, suffixes, prefixes, spelling and pronunciation) as they relate to anatomical structure and function. Medical terminology related to pharmacology, abnormal conditions, surgical procedures, and diagnosis and treatment of common medical conditions. This course is taught online.

### **KINE 2300. Prevention and Care of Athletic Injuries. Units: 3**

Semester Prerequisite: BIOL 2230 and BIOL 2240. Quarter Prerequisite: BIOL 223 and BIOL 224

Theories and methods in the prevention, assessment, and treatment of injuries encountered in physical activity and sports. Formerly offered as KINE 305, students may not receive credit for both courses. Materials fee required.

### **KINE 2400. Applications of Technology in Kinesiology. Unit: 1**

Examination and application of technology in exercise science, physical activity, and health. Content is consistent with skills necessary to prepare students for professions in the field of kinesiology. Formerly known as KINE 240, students may not receive credit for both. Materials fee required.

### **KINE 2500. Observational Field Experience in Kinesiology. Units: 2**

Observational field experience (on or off-campus) in exercise testing, monitoring, and programming. The American College of Sports Medicine expects that new fitness professionals will have spent time observing practitioners. One hour lecture and three hours of observation. Formerly offered as KINE 493, students may not receive credit for both courses.

### **KINE 2540. Field Work in Physical Education and Adapted Physical Education. Units: 2**

Supervised off-campus observational field experience in teaching physical education and adapted physical education. One hour of lecture and three hours of observation. Instructor consent is required. Formerly offered as KINE 254; May be taken four times for eight units.

### **KINE 2610. Teaching/Coaching Principles for Dance. Units: 2**

The development of the fundamental techniques and skills for teaching and coaching professional dance activity preparation. Basic dance skills including the exploration, expression, and creativity of movement as utilized in a variety of dance forms. Formerly offered as KINE 261C; students may not earn credit for both. Materials fee required.

### **KINE 2611. Teaching/Coaching Principles for Gymnastics. Units: 2**

The development of the fundamental techniques and skills for teaching and coaching professional gymnastics as well as organizational strategies utilized in presenting gymnastics in K-12 physical education classes.

Formerly offered as KINE 261F; students may not earn credit for both. Materials fee required.

### **KINE 2612. Teaching/Coaching Principles for Swimming. Units: 2**

Quarter Prerequisite: KINE 137A, KINE 137C, KINE 137J, KINE 137K or KINE 137L or Pass Swim Test

The development of the fundamental techniques and skills for teaching and coaching professional swimming and water safety instruction preparation. Instructions in individual aquatic skills, and in organizing a school aquatic program. Registering for this course does not ensure admittance; a swim test must be passed in order to remain in the class. If you do not pass the swim test, you will be removed from the class and will be required to take KINE 1370 before acceptance into this course. Formerly offered as KINE 261H. Students may not earn credit for both. Materials fee required.

### **KINE 2620. Teaching/Coaching Principles for Combative/Fitness Activity. Units: 3**

The development of the fundamental techniques and skills for teaching and coaching professional combative and fitness activity. Consists of instruction, practice, and evaluation in physical fitness and basic skills and techniques utilized in selected combative and martial arts movement form. Two hours lecture and two hours activity. This course is a combination of KINE 261M and KINE 261N; students who earned credit for KINE 261M and KINE 261N may not earn credit for this course. Materials fee required.

### **KINE 2630. Teaching/Coaching Principles for Individual/Dual Sport. Units: 3**

The development of the fundamental techniques and skills for teaching and coaching professional individual and dual sports. This course centers on the basic skills of selected individual and dual sports and strategies for successful performance in individual and dual sports. Two hours lecture and two hours activity. This course is a combination of KINE 261B and KINE 261J; students who earned credit for KINE 261B and 261J may not earn credit for this course. Materials fee required.

### **KINE 2640. Teaching/Coaching Principles for Team Sports. Units: 3**

The development of the fundamental techniques and skills for teaching and coaching professional team sports. This course centers on the basic skills of selected team sports and strategies for successful performance in team sports. Two hours lecture and two hours activity. This course is a combination of KINE 263A, B, C, D, E; students who earned credit for four of the five courses listed may not earn credit this course. Materials fee required.

### **KINE 2650. Teaching/Coaching Principles for Fundamental Movement, Nontraditional Games. Units: 3**

The development of the fundamental techniques and skills for teaching and coaching professional fundamental movement and nontraditional games activity preparation. This course identifies examples of nontraditional, global, and cooperative games and activities, and applies knowledge of how to promote critical thinking, decision making, problem solving, collaboration, cooperation, leadership, and communication through participation in non-traditional games and activities. Two hours lecture and two hours activity. Materials fee required.

### **KINE 2700. Introduction to Fitness and Programming. Units: 3**

Understanding the scientific basis for assessing physical conditioning, fitness, and strength development. Acquisition of the skills and techniques necessary for designing and evaluating fitness programs for specific applications. Students will show a valid American Red Cross or American Heart Association CPR certification for completion of the course. Formerly known as KINE 270; students may not earn credit for both. Materials fee required.

### **KINE 3000. Exercise and well-being of the human body. Units: 3**

Semester Prerequisite: Junior or senior standing

This course will cover foundational links between scientific disciplines relating exercise, mental health, and overall well-being of the human body. Students will take a problem-oriented approach to explore, analyze, and explain the role of exercise and its impact on the overall well-being of the human body. An emphasis will be placed on the biopsychological, biological, biochemical, and physiological mechanisms underlying how exercise shapes an individual's well-being. Students will be able to explore, engage in, and analyze various exercises that have known relationships with reducing stress, reducing anxiety, and promoting a healthy well-being. The use of technology will be incorporated to collect, analyze, and interpret physiological and psychological data. Satisfies GE B5/UD-5.

### **KINE 3011. Service Learning in Kinesiology. Unit: 1**

Semester Prerequisite: KINE 2100. Quarter Prerequisite: KINE 210  
Supervised activities in Kinesiology that provide service to campus or community constituents based on field experiences for students to link their coursework with the discipline of Kinesiology. Graded ABC/No Credit. Formerly known as KINE 301; repeatable for credit.

### **KINE 3050. Disability, Society and Physical Activity. Units: 3**

This course will cover material related to disabilities and physical activity from a historical, societal, and social behavioral perspective. Students will be able to explore, develop, analyze, and integrate the social and physical aspects of disabilities. Emphasis will also be placed on the exploration of differing perspectives while making connections across disciplines. Social identities of race, class, gender, sexual orientation, and other conditions will be explored. Satisfies GE D4/UD-4.

### **KINE 3100. Introduction to Adapted Physical Activity. Units: 3**

Provides an overview of adapted physical activity. Understanding the basic concepts and issues about teaching/coaching/training individuals with various disabling conditions. Formerly offered as KINE 311; students cannot earn credit for both.

### **KINE 3200. Principles of Human Movement. Units: 3**

Semester Prerequisite: BIOL 2230 and BIOL 2240

Basic mechanical principles and their application in the study of human movement and an introduction to basic principles of biomechanics.

### **KINE 3250. Exercise Techniques for Resistance Training. Units: 3**

Semester Prerequisite: BIOL 2230 and BIOL 2240. Prerequisite: BIOL 223 and BIOL 224

The students will explore a variety of exercises relating to the development of muscular strength, endurance, and power using a variety of equipment, including free weights and resistance machines. Emphasis on the practical and appropriate application, instruction, and supervision of resistance exercise lifting and spotting techniques to accommodate a variety of clients and patients. Content is consistent with skills necessary to prepare students as health and fitness professionals by the American College of Sports Medicine, National Strength and Conditioning Association, and the United States Registry of Exercise Professionals. Two lecture hours and three lab hours. It is recommended to take KINE 3200 prior to this course. Materials fee required.

### **KINE 3300. Movement Skill Assessment for Individuals with Disabilities. Units: 3**

Semester Prerequisite: KINE 3100. Quarter Prerequisite: KINE 311

Analysis of motor skills for the purpose of conducting meaningful assessment for individuals with disabilities. Formerly offered as KINE 330, students may not receive credit for both courses. Course required for the California Adapted Physical Education Added Authorization.

### **KINE 3320. The Nature and Issues Concerning Individuals with Disabilities. Units: 3**

Semester Prerequisite: KINE 3100

Key initial adapted physical education core competencies about the nature and issues associated with disabling conditions across the lifespan. Formerly offered as KINE 332, students may not receive credit for both. Course required for the California Adapted Physical Education Specialist Credential.

### **KINE 3330. Applied Behavior Management. Units: 3**

Applied behavior management and analysis strategies that have relevance and application to teaching physical education. Strategies to manage, motivate, and teach responsible behaviors in a variety of physical activity settings for individuals with and without disabilities. Emphasis is on single-subject applied research design. Formerly offered as KINE 333, students may not receive credit for both. Course required for the California Adapted Physical Education Specialist Credential.

### **KINE 3400. Psychology and Sociology of Human Movement. Units: 3**

The theoretical foundations and practical applications of psychological and social concepts of sport, exercise, rehabilitation, and physical activity. Discussion topics relate to psychological components of human movement as well as components relating to social interactions and social institutions. Formerly offered as combination of KINE 323 and KINE 324, students may not receive credit for both.

### **KINE 3500. Motor Development Across the Lifespan. Units: 3**

Concepts of growth and motor development of human beings throughout the lifespan. Focuses on physical growth and maturation and their relationships to motor behavior. Areas covered include prenatal and postnatal growth, maturation, development, sequential progression of fundamental motor skills, environmental factors that influence the teaching/learning of fundamental motor skills, and physical activity of individuals across a lifespan. Formerly offered as KINE 325; students may not receive credit for both courses.

### **KINE 3510. Research Seminar in Kinesiology. Unit: 1**

Discussion and critical analysis of peer-reviewed articles in the area of Kinesiology.

### **KINE 3520. Movement for Children. Units: 2**

The study and analysis of movement for children. Includes the structure of movement, the integration of movement activities and the human development aspects of movement. Formerly known as KINE 352, students may not receive credit for both.

### **KINE 3600. Physical Activity and Aging. Units: 3**

Examination of the neurological and physiological changes associated with the aging process from post-adolescence through the senior years. Includes information concerning special planning, implementing and evaluation of adult oriented physical activity programs. Formerly offered as KINE 360; students may not earn credit for both courses.

### **KINE 3700. Statistics in Kinesiology. Units: 3**

Selection, application and interpretation of evaluative measures used in pedagogical and in exercise science settings. Includes both descriptive and inferential statistics. Specific attention will be given to parametric techniques. Satisfies WI designation. Formerly offered as KINE 370, students may not receive credit for both.

### **KINE 3800. Exercise Physiology. Units: 4**

Semester Prerequisite: BIOL 2230 and BIOL 2240. Quarter Prerequisite: BIOL 223 and BIOL 224

Examination of the acute physiological effects of exercise and the adaptations resulting from regular exercise. Three hours of lecture and three hours of laboratory. Formerly offered as KINE 481; students may not receive credit for both course. Materials fee required.

### **KINE 3810. Sport and Exercise Nutrition. Units: 3**

Discusses nutritional requirements for active people and athletes. Topics include nutritional requirements for exercise, nutrient timing, macronutrients, micronutrients, and popular sports nutrition supplements. Formerly offered as KINE 382 and HSCI 382; students may not earn credit for both courses. It is recommended to take BIOL 2240 prior to this course.

### **KINE 3900. Health and Fitness Business Management. Units: 3**

Discusses business management as related to the health/fitness/wellness industry. Topics include budgeting, finance, marketing, sales, leadership, management, human resources, scheduling, evaluation of programs, and legal issues. Formerly offered as KINE 471, students may not receive credit for both courses.

### **KINE 4100. Motor Learning and Control. Units: 3**

A behavioral and neurological level of analysis of the factors that influence the (re)acquisition and retention of motor skills with some emphasis on the role of the sensory and motor control systems. Formerly KINE 410, students may not receive credit for both.

### **KINE 4200. Seminar in Kinesiology. Unit: 1**

Semester Prerequisite: Senior standing. Quarter Prerequisite: Senior standing

This course provides students with the opportunity to demonstrate knowledge and understanding of various concepts and issues about the profession and discipline of Kinesiology. Formerly known as KINE 490, cannot repeat for credit. Consent of Department required.

### **KINE 4300. Environmental Exercise Physiology. Units: 3**

Semester Prerequisite: KINE 3800. Prerequisite: KINE 481

An examination of the acute and chronic physiological responses to exercise in different physical environments as well as injuries and illnesses related to exercising in environmental extremes.

### **KINE 4400. Exercise Testing and Prescription. Units: 4**

Semester Prerequisite: KINE 3800. Quarter Prerequisite: KINE 481, KINE 485, and KINE 486

Prepares students to perform health screenings, operate basic physiological measurement equipment used in fitness assessment, and develop exercise prescriptions for a variety of populations. Content is consistent with skills necessary to prepare students as exercise physiologists by the American College of Sports Medicine and the United States Registry for Exercise Professionals. Formerly offered as a combination of KINE 486 and KINE 483; students whom earned credit for KINE 486 and KINE 483 may not earn credit for this courses. Three hours of lecture and three hours of lab. Materials fee required.

### **KINE 4500. Principles of Strength and Conditioning. Units: 3**

Semester Prerequisite: KINE 3200 and KINE 3800. Prerequisite: KINE 481

An examination of the acute and chronic effects of various forms of strength training and conditioning in the generally healthy individual. Content is consistent with skills necessary to prepare students as health and fitness professionals by the National Strength and Conditioning Association and the United States Registry of Exercise Professionals.

### **KINE 4600. EKG Interpretation and Stress Testing. Units: 4**

Quarter Prerequisite: KINE 481

Principles of electrocardiography, including EKG interpretation at rest and during graded exercise testing. Content is consistent with skills necessary to prepare students as exercise physiologist by the American College of Sports Medicine and United States Registry of Exercise Professionals. Formerly offered as a combination of KINE 485 and KINE 486; students whom earned credit for KINE 485 and KINE 486 may not earn credit for this course. Three hours lecture and three hours lab. Materials fee required.

### **KINE 4700. Clinical Exercise Physiology. Units: 4**

Semester Prerequisite: KINE 3800. Prerequisite: KINE 481

An examination of the physiological issues that are important in the use of exercise for prevention and/or treatment of chronic disorders. Content is consistent with skills necessary to prepare students as an exercise physiologist by the American College of Sports Medicine and the United States Registry of Exercise Professionals. Three hours lecture and three hours lab hour. Materials fee required.

### **KINE 4720. Program Design in Physical Education. Units: 3**

Quarter Prerequisite: KINE 210

Basic skills necessary to design, implement, and evaluate effective physical education programs in public schools. Formerly KINE 472, cannot be repeated for course credit.

### **KINE 4730. Instructional Strategies in Physical Education. Units: 3**

Prepares future physical educators with skills to translate goals and objectives in the teaching-learning process into effective teaching behaviors. Formerly KINE 473, cannot be repeated for course credit.

### **KINE 4740. Technology in Physical Activity. Units: 3**

Prepares future Kinesiologists to effectively utilize technology to assist in the administration and evaluation of physical activity. This course focuses on the ever growing utilization of technology in the realm of kinesiology.

### **KINE 4800. Biomechanics. Units: 4**

Semester Prerequisite: Completion of GE category B4, and KINE 3200.

Quarter Prerequisite: BIOL 223 and BIOL 224 and MATH 110 or MATH 120, OR MATH 192, OR MATH 211

Application of physical laws to human performance; analytical and quantitative processes emphasized. Formerly offered as KINE 480, students may not receive credit for both courses. Three hours Lecture and three hours lab. GE B4- MATH 1301 is recommended for this course. Materials fee required.

### **KINE 4900. Seminar in Physical Education and Adapted Physical Education. Units: 3**

Semester Prerequisite: KINE 2540 and KINE 3100 and completion of a minimum of 90 semester units. Quarter Prerequisite: Senior standing

A study of issues associated with the philosophy, procedures, and practices of general physical education, adapted physical education and adapted physical activity. Course required for the California Adapted Physical Education Added Authorization. Formerly a combination of KINE 334 and KINE 490; students who earn credit for KINE 334 and KINE 490 may not earn credit for this course.

### **KINE 5951. Independent Study. Unit: 1**

Experimental effort, field or library research conducted under the direction of a faculty member. Consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the semester in which the course is to be taken is required. Formerly offered as KINE 595A; students may repeat up to 3 units. A maximum of 3 units course credit can be earned of KINE 595 series.

### **KINE 5952. Independent Study. Units: 2**

Experimental effort, field or library research conducted under the direction of a faculty member. Consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the semester in which the course is to be taken is required. Formerly offered as KINE 595B; students may not earn credit for both courses. A maximum of 3 units course credit can be earned of KINE 595 series.

### **KINE 5953. Independent Study. Units: 3**

Experimental effort, field or library research conducted under the direction of a faculty member. Consent of instructor and departmental approval of a written proposal of a project submitted on a standard application filed in advance of the semester in which the course is to be taken is required. Formerly offered as KINE 595C, students may not receive credit for both courses.