

KINESIOLOGY

College of Health and Social Sciences

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Department of Kinesiology

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Program Scope

The programs in Kinesiology at San Francisco State University are carefully designed so that students experience the multidisciplinary foundations of human movement and physical activity. Students gain theoretical and practical knowledge related to the biological, physical, behavioral, sociocultural, philosophical, and psychological factors underlying human movement and physical activity. The field of kinesiology studies underlying factors in the context of skill in a variety of contexts, including those related to activities of daily living, work settings, recreation, sport, and the performing arts. Factors and parameters associated with conditioning, learning, and rehabilitation are studied across the lifespan and within a diversity of populations. In addition, sport is studied as a personal endeavor and social institution. Thematic emphases allow students to select patterns of courses tailored to meet individual interests and career goals.

The department offers a wide array of physical activity classes that provide instruction in movement and sport skills from beginning to advanced levels; an array of General Education courses examining aspects of physical activity and mental-physical performance from various perspectives; prerequisites for advanced graduate study and certificates in therapeutic and allied health fields and adapted physical education; and minors leading to certification in coaching and adapted physical education.

Physical Education and Adapted Physical Education Teaching

Students who wish to become credentialed as public school teachers in physical education or as adapted physical education specialists should select the Integrated Teacher Education Program (ITEP) in Physical Education c (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/bs-kinesiology-concentration-physical-education/#degreerequirementstext>) concentration. However, to be eligible for admission to the credential program at San Francisco State, students must attain a GPA of 2.75 or better in the Subject Matter Program curriculum. Students must work closely with an advisor to fulfill the requirements of the Subject Matter Program, and should also contact the Credential and Graduate Services Center for teaching credential information. The Center is located in Burk Hall 244, (415) 405-3594; credinfo@sfsu.edu.

Adapted Physical Education (Added Authorization)

The Adapted Physical Education Added Authorization (APE AA) allows an individual to teach special needs students who are precluded from participating in a general education physical education program or a

specially designed physical education program as determined by the local level special education assessment. The APE Added Authorization is an add-on authorization for the holder of a valid prerequisite credential.

Candidates for the Add Authorization in Adapted Physical Education must hold a teaching credential in one of the following: Physical Education Single Subject, Multiple Subject, or Special Education – with 12 units of prerequisites that include the following coursework or equivalent:

Code	Title	Units
KIN 487	Motor Development	3
KIN 485	Biomechanics	3
KIN 580	Middle and High School Physical Education: Grades 6-12	3
KIN 581	Practicum in Middle and High School Physical Education	1
	An instructional analysis upon the advisor's approval	2

Bachelor of Science: Exercise and Movement Sciences

The concentration in Exercise & Movement Sciences serves students interested in biomechanics, exercise physiology, motor control, motor learning and development, sport and exercise psychology, sport history, sport sociology, at-risk youth development, and physical or occupational therapy.

Focus Areas:

Movement Science: Study of human movement from the perspective of the mover/performer (the status of performer, their abilities and characteristics), the task, what the mover is trying to accomplish (the goal of the movement or task and expected outcome), and the environmental conditions in which the task is performed.

Exercise Science: Study of human movement from the physiological perspective including understanding the factors that influence work performance, training programs, adaptations including the reduction of risk factor for medical conditions such as coronary heart disease, cerebral vascular disease, adult-onset diabetes, obesity, and osteoporosis, as well as special conditions such as pregnancy and thither hypokinetic illness, or adaptations that are effective for youth, aged, and disabled populations.

Social Science: Study of physical activity using theoretical and methodological approaches from sociology, history, cultural studies, pedagogy, psychology, youth development, and philosophy focusing on the context in which the activity occurs. Supports an understanding of the meanings and experiences of all forms of human physical activity for individuals and groups across the lifespan, from children and youth to older individuals across all forms of physical activity.

Minor in Athletic Coaching

This area of study provides students in academic areas other than kinesiology with the knowledge and skills required for coaching interscholastic or community athletic teams.

Therapeutic and Allied Health Profession Preparation

The B.S. in Kinesiology supports preparation for advanced study in graduate or certificate programs in therapeutic or rehabilitation areas including physical or occupational therapy, chiropractic, and allied health professions. With the addition of specific courses required for admission to various graduate programs, the student will graduate with a strong foundation in the movement sciences as well as with most of the prerequisites necessary for entry into a program of their choice.

Kinesiology programs include a number of courses typically required for the admission to physical or occupational therapy programs and may provide the graduate with more than one career/graduate path. Students are strongly advised to identify the specific requirements of each program to which they plan to apply. Some additional courses may be substituted for parallel courses in the major, upon approval of the student's major advisor. Other courses may be taken as free electives or, in some cases, to fulfill General Education requirements. To stay informed and to optimize planning, students must work closely with their assigned departmental advisor.

Advising

Students in all the programs must work closely with an advisor to select the proper degree program, concentration, and configuration of courses to support career and scholarly interest related to the study of human movement and physical activity. Students seeking to major in or change their major to kinesiology should follow the application procedures on the department's website.

Undergraduate students interested in pursuing a master's degree in Kinesiology should speak to their academic advisor after completing core requirements in the program (KIN 251, KIN 384GW, KIN 404, KIN 457, KIN 480, and KIN 486).

Many of the courses listed in the major patterns have prerequisites or co-requisites and must be taken in a particular sequence. See "Duplicate Use of Credit Between the Major and GE" in the (<http://bulletin.sfsu.edu/undergraduate-education/#Major>) *Bulletin* page Undergraduate Degree: Overview. Prior approval by the student's major advisor is required for all individually tailored groups of courses and course substitutions.

The course of study in the major requires that the student complete all basic subjects requirements (GE Areas A and B4) and pre-major prerequisites, all with **a grade of C or better**, prior to enrolling in the major upper-division courses. The major upper-division courses, projects, internships, and culminating experiences require competence in written and oral communication, quantitative reasoning, logical and critical thinking, computer facility, and a thorough grounding in biological and physical science. The B.S. in Kinesiology is science-intensive. Successful and timely progress through this program requires careful planning and organization. Students must show proof of completion of prerequisites to the instructor at the start of all applicable courses.

Transfer students are encouraged to visit the department prior to enrollment at SF State, or as soon as possible thereafter, to learn about the major and the expectations for student performance. Students having academic difficulty for any reason are encouraged to seek assistance **immediately** by speaking to their major advisor, a peer counselor (kin.sfsu.edu/advising (<https://kin.sfsu.edu/advising/>)), and/or the Student Resources Center (chss.sfsu.edu/src (<http://chss.sfsu.edu/src/>)) in the College of Health and Social Sciences.

Master of Science in Kinesiology

Students in the M.S. Kinesiology program apply multiple perspectives to problems related to exercise, fitness, motor skill, and development in the contexts of activities of daily living, play, games, sport, and other forms of human physical activity. Graduates finish the program with strong theoretical and problem-solving skills, experience in the evaluation of current research in the field, and knowledge in the field of kinesiology. They are able to apply these skills in a wide variety of careers as well as further graduate study. The curriculum allows for a focus in exercise physiology, movement science, or social science.

Exercise Physiology

A focus in exercise physiology is intended for students who are interested in furthering their understanding of how the physiological systems of the human body respond to exercise. Exercise physiology is a multi-disciplinary field with strong ties to basic research, life sciences, and medicine. This emphasis offers a comprehensive study of the acute and chronic cardiovascular, respiratory, and metabolic responses to exercise; and the application of these concepts to exercise testing, prescription, and supervision in both healthy and diseased populations. Furthermore, an objective of the exercise physiology emphasis is to assist in preparation for certification as an Exercise Physiologist and/ or Clinical Exercise Physiologist through the American College of Sports Medicine. Upon completion of the program, students will be prepared to further their education in a doctoral program or seek employment in a rehabilitation clinic, health club, wellness center, or other fitness settings. Kinesiology graduate students may earn a **Certificate** in Exercise Physiology by completing all requirements including three courses (9 units) in the emphasis that are marked with a number (¹). This certificate is only for graduate students in the Kinesiology program.

Movement Science

A focus in movement science provides an advanced degree that prepares students to work in a variety of movement and health care settings, teach in community colleges or high schools, or continue postgraduate studies leading to a doctoral degree. Students explore the multitude of factors that influence the control of human movement and the way in which that control changes over time. In addition, students develop skill critiquing and analyzing movement using techniques from the neurosciences and biomechanics. Students ultimately apply their knowledge and skill in areas such as sports, dance, recreation, rehabilitation, teaching, coaching, and ergonomics. Kinesiology graduate students may earn a **Certificate** in Movement Science by completing all requirements including three courses (9 units) in the emphasis that are marked with a number (¹). This certificate is only for graduate students in the Kinesiology program.

Social Science

A focus in social science is intended for students interested in advanced study of physical activity from within the socio-cultural, psychological, pedagogical, or at-risk youth development areas. Students who have been active in the fields of education and physical education and who are interested in or are currently pursuing a teaching credential will also find the program relevant to their career goals. The curriculum is designed so that students who are currently enrolled in the credential program can apply 12 units towards the master's program. In addition, students who previously received their teaching credential and are returning to school for the M.S. degree can design, with advisement, a program of studies from the courses listed below and other electives. Lastly, students can plan, with advisement, a program of studies within adapted physical education. Kinesiology graduate students may earn a **Certificate** in Physical Activity: Social Scientific Perspectives by completing three

courses (9 units) in the emphasis that are marked with a number ⁽¹⁾. This certificate is only for graduate students in the Kinesiology program.

Successful completion of the master degree requires that students demonstrate knowledge and skill in the following areas:

- a. Able to apply multiple perspectives to the study of various forms of physical activity (e.g., exercise, fitness, movement, and skill) across the lifespan and in a variety of contexts.
- b. Gain an in-depth understanding of the body of knowledge related to one or more of the sub-disciplines in the field of kinesiology.
- c. Able to identify and search for information associated with problems or topics in kinesiology.
- d. Able to use appropriate methodologies and technologies to address specific problems or topics in kinesiology.
- e. Exit the program with an understanding of dominant theories, models, and systems in the study of kinesiology.
- f. Become critical consumers of the literature in kinesiology and will have the skills and knowledge to make contributions to that literature.

Career Outlook

Graduates from our program can gain immediate entry into a number of physical activity, exercise, and human movement-related jobs or can seek advanced study leading to careers in: teaching, adapted physical education, coaching, athletic training, physical therapy, occupational therapy, exercise leadership, fitness program management, sports media, consulting, community-based program development, cardiac rehabilitation, biomechanical analysis of movement, ergonomics, sports-related endeavors, research in movement and skill development and learning, research in exercise physiology, research in sociocultural and psychological factors associated with sports, physical activity, and/or urban youth development, or careers in technical writing or computer technology.

Notes for Prospective Applicants for Undergraduate

Interested freshmen desiring a Bachelor of Science in Kinesiology should apply to the program as *Pre-Kinesiology*. Upper-division applicants will be considered for admission to the major. To be admitted to the major, students must have upper-division status (earned at least 60 units by the preceding semester) and are recommended to complete prerequisite courses (Human Biology, Human Anatomy, Human Physiology, Elementary Statistics, and Introduction to Kinesiology), all with grades of C or better. The applicants should choose their concentration (i.e., Exercise and Movement Science or Integrated Teacher Education Program) at the time of their application.

Impaction Information

Currently, our Exercise and Movement Science concentration in the B.S. program is impacted. This means that there are more students interested in studying kinesiology than the program can accommodate. Therefore, entrance into the program is a selective and competitive process. Prospective students will need to apply to the program and students will be accepted for the fall or spring semesters of each academic year. Transfer applicants not admitted to the major, but who meet GE and University admissions requirements, will be admitted to their alternate non-impacted majors. Continuing SF State students not admitted to the program will remain in their current majors or will be admitted to their alternate non-impacted majors.

Professor

David Anderson (1996), *Professor in Kinesiology*. Ph.D. Louisiana State University.

Claudia Guedes (2005), *Professor in Kinesiology*. Ph.D. State University of Campinas, Brazil.

Kathryn A. Hamel (2005), *Professor in Kinesiology*. Ph.D. Pennsylvania State University.

Charmayne Mary Lee Hughes (2015), *Professor in Kinesiology*. Ph.D. Purdue University.

Matthew Lee (2001), *Professor in Kinesiology*. Ph.D. Louisiana State University.

Marilyn Mitchell (1997), *Professor in Kinesiology*. Ph.D. University of Wisconsin, Madison.

Maria J. Veri (2008), *Professor in Kinesiology*. Ph.D. University of Tennessee, Knoxville.

David Walsh (2003), *Professor in Kinesiology*. Ph.D. University of Illinois, Chicago.

Susan Zieff (1989), *Professor in Kinesiology*. Ph.D. University of California, Berkeley.

Associate Professor

James R. Bagley (2015), *Associate Professor in Kinesiology*. Ph.D. Ball State University.

Nicole D. Bolter (2015), *Associate Professor in Kinesiology*. Ph.D. University of Minnesota, Twin Cities.

Kent A. Lorenz (2016), *Associate Professor in Kinesiology*. Ph.D. Arizona State University.

Assistant Professor

Leia B. Bagesteiro (2018), *Assistant Professor in Kinesiology*. Ph.D. University of Surrey.

Wei-Ru "Andy" Yao (2018), *Assistant Professor in Kinesiology*. Ph.D. Georgia State University.

Majors

- Bachelor of Science in Kinesiology: Concentration in Exercise and Movement Sciences (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/bs-kinesiology-concentration-exercise-movement-sciences/>)
- Bachelor of Science in Kinesiology: Concentration in Integrated Teacher Education Program in Physical Education (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/bs-kinesiology-concentration-physical-education/>)

Minor

- Minor in Athletic Coaching (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/minor-certificate-athletic-coaching/>)

Masters

- Master of Science in Kinesiology (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/ms-kinesiology/>)

Certificates

- Graduate Certificate: Exercise Physiology (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/ct-exercise-physiology/>)
- Graduate Certificate: Movement Science (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/ct-movement-science/>)
- Graduate Certificate: Physical Activity: Social Scientific Perspectives (<http://bulletin.sfsu.edu/colleges/health-social-sciences/kinesiology/ct-physical-activity-social-scientific-perspectives/>)

KIN 100 Aerobics: Low Impact (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Introduction to aerobic fitness via cardio-vascular training. Includes warm-ups, stretching, various aerobic activities, light strength training and cool down. Aimed at improving cardiovascular endurance, strength, flexibility, weight control, stress management, energy level, and overall well-being. Basic physiological principles of exercise and exercise safety are highly stressed. A physical activity course for all levels of fitness and no previous experience is required. Activity. May be repeated for a total of 3 units.

KIN 103 Aerobics: Steps (Unit: 1)

Prerequisite: Priority enrollment for Kinesiology majors. Students in other majors admitted on a space-available basis.

A Physical activity course designed to introduce students to cardio-vascular training using a hard plastic 4-inch "step" and additional risers to perform various exercises. Includes warm-ups, stretching, various stepping patterns, light strength training and cool down. Modifications allow everyone to participate at their own intensity. Activity. May be repeated for a total 3 units.

KIN 124 Fitness and Conditioning (Units: 2)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Learn and apply theories of fitness through practice with a focus on improving the individual's overall physical conditioning. Experience an improvement in cardiovascular endurance, strength, flexibility, weight control, stress management, energy level, and overall well-being. Physical activity course. Lecture, 1 unit; activity; 1 unit. May be repeated for a total of 6 units.

KIN 136 Hatha Yoga (Unit: 1)

The word hatha literally means "force" and thus alludes to a system of physical techniques. In the 20th century, hatha yoga, particularly asanas (the physical postures), became popular throughout the world as a form of physical exercise, and is now colloquially termed as simply "yoga". Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 139 Jogging (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Learn proper jogging/running technique. Beginning with a slower pace and shorter distance and evolving to allow the student to complete a goal set by the student. An example of a common goal has been to successfully complete the Bay-to-Breakers seven mile run without needing to walk. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 148 Elementary Kung Fu (Unit: 1)

Introduction to this Chinese Martial Art involving special hand movements, body positions, and breathing exercises. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 151 Tae Kwon Do (Unit: 1)

The Korean martial art form of Tae Kwon Do. Focus on learning the movement forms, the historical and cultural significance of this art form, and the modern evolution of Taekwondo. Activity. May be repeated for a total of 3 units.

KIN 158 Personal Defense (Units: 2)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Approximately one-third of the class will be discussion and the other two thirds a physical workout. Encourages students to think in terms of options and choices, develop awareness and assertiveness skills and provide practice for physical self-defense techniques. It should expand the way they think about violence prevention, help them deal with their fears and enable them to feel more empowered in their life. Physical activity course. Lecture, 1 unit; activity, 1 unit. May be repeated for a total of 6 units.

KIN 161 Shaolin Chuan: Tan-Tui (Unit: 1)

A Chinese exercise form that focuses on strength, flexibility and speed by mastering lines of quick movements, kicks and leaps. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 164 Elementary Soccer (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Introduction to understanding the rules of soccer, develop fundamental skills, and enjoy playing the world's most popular sport. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 171 Beginning Swimming: Non-Swimmers (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Introduction to the basic knowledge and skills of the beginning swimmer. Skills include breath holding, prone float, back float, and floating with kicking, and basic swim strokes. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 172 Elementary Swimming (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Instruction in the basic knowledge and skills of a beginning swimmer. Skills include breath holding, rhythmic breathing, prone float, floating with kicking, leading up to full standard swimming strokes. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 175 Elementary Tai-Chi Chuan (Unit: 1)

Ten basic exercises and 32 movements of the traditional form of Tai-Chi Chuan. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 189 Weight Training: Beginners Only (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Proper strength training techniques and training regimens which result in an increase in muscular strength and conditioning. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 191 Individualized Weight Training (Unit: 1)

Prerequisite: Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Weight training conducted in an open gym format. Work out under supervision according to an approved program of 100 minutes per week distributed over at least two sessions. Assessment of the strength of various muscle groups. Lectures on various approaches to strength training. Activity. May be repeated for a total of 3 units.

KIN 236 Intermediate/Advanced Hatha Yoga (Units: 2)

Prerequisite: KIN 136 or permission of the instructor.

Intermediate/advanced Hatha Yoga postures. Historical background of the branches of yogic philosophy. Explanation, demonstrations, and practice of various intermediate and advanced movements, postures, and breathing exercises of traditional Hatha Yoga. Lecture, 1 unit; activity, 1 unit. May be repeated for a total of 6 units.

KIN 240 Introduction to Teaching Physical Education (Units: 3)

Prerequisites: GE Areas A2, A3, and B4 with grades of C or better; priority enrollment for Kinesiology majors and undeclared students with an interest in Kinesiology.

Contemporary view of physical education as an applied field of Kinesiology and physical activity promotion. Introduction early field experience in K-12 schools, assessment, and planning in physical education. Physical education as a career choice. [Formerly KIN 340]

KIN 250 Introduction to Kinesiology (Units: 3)

Prerequisites: GE Areas A2, A3, and B4 with grades of C or better; priority enrollment for Kinesiology majors and undeclared students with an interest in Kinesiology.

Introduction to and examination of Kinesiology and its various subfields; exploration of career opportunities. Lecture, 2 units; laboratory, 1 unit.

KIN 251 Success in the Kinesiology Major (Units: 2)

Prerequisites: Restricted to Kinesiology majors; concurrent enrollment in KIN 384GW.

A quality advising experience in a learning-centered environment that will prepare students to be active learners engaged in their educational and life goals while teaching them to become self-sufficient, lifelong learners. (Plus-minus ABC/NC)

KIN 255 Health-Related Fitness and Wellness (Units: 3)

Prerequisite: Completion of GE Areas A and B4 with grades of C or better; enrollment in an activity course is recommended.

Exploration of the roles of regular exercise, healthy eating habits, and stress management in the maintenance of health-related fitness and wellness over the lifespan.

Course Attributes:

- Social Justice
- D1: Social Sciences
- E1 LLD Pre-Fall 2019
- Environmental Sustainability
- Global Perspectives

KIN 257 Wellness, Fitness and the Global Perspective (Units: 3)

Introduction to human anatomy, physiology, the basic principles of exercise and wellness, and to the benefits and limitations of wellness practices around the world; blending physical movement and fitness training with academic skills including critical reading, research, and scholarly presentations. Lecture, 2 units; activity, 1 unit. (Plus-minus ABC/NC, CR/NC)

Course Attributes:

- Global Perspectives
- E1 LLD Pre-Fall 2019

KIN 272 Intermediate/Advanced Swimming (Unit: 1)

Prerequisite: KIN 172 or permission of the instructor. Priority enrollment given to Kinesiology majors. Students in other majors admitted on a space-available basis.

Development of form and fine-tuning of all swim strokes. Attention to distance swimming and swim speed. Physical activity course. Activity. May be repeated for a total of 3 units.

KIN 298 Practicum in Kinesiology (Unit: 1)

Prerequisite: Permission of the instructor and associate chair.

Individually directed experiences as leadership assistants in movement activities.

KIN 299 Practicum in Kinesiology (Unit: 1)

Prerequisite: Permission of the instructor and associate chair.

Individually directed experiences as leadership assistants in movement activities.

KIN 305 Instructional Analysis: Track, Field, and Gymnastics Floor Activities (Units: 2)

Prerequisites: KIN 240 or permission of the instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) before enrolling in this course.

Analysis of fundamental skills and strategies in track and field and gymnastics floor activities for teaching and coaching beginning and intermediate learners. Progressions, feedback, structuring effective learning environments in various teaching situations, and individual differences. Lecture, 1 unit; activity, 1 unit.

KIN 307 Instructional Analysis: Basketball and Volleyball (Units: 2)

Prerequisites: KIN 240 or permission of the instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) before enrolling in this course.

Analysis of fundamental skills and strategies in basketball and volleyball for teaching and coaching beginning and intermediate learners. Skill progressions, feedback, structuring effective learning environments, and individual differences. Lecture, 1 unit; activity, 1 unit.

KIN 308 Instructional Analysis: Fitness Activities (Units: 2)

Prerequisites: KIN 255 (may be taken concurrently); fitness assessment; or permission of the instructor.

Analysis of fundamental skills and strategies in teaching a variety of fitness activities. Lecture, 1 unit; activity, 1 unit.

KIN 309 Instructional Analysis: Soccer and Softball (Units: 2)

Prerequisites: KIN 240 or permission of the instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) before enrolling in this course.

Analysis of fundamental skills and strategies in soccer and softball for teaching and coaching beginning and intermediate learners. Skill progressions, feedback, structuring effective learning environments, addressing individual differences. Lecture, 1 unit; activity, 1 unit.

KIN 310 Youth Development Instructional Analysis I (Units: 3)

Prerequisites: KIN 240 or KIN 250 and any GVAR course.

Introduction to the theoretical and practical applications of the Teaching Personal and Social Responsibility Model (TPSR), a youth development physical activity-based curriculum model. Focus on TPSR goals, strategies, and a developmental progression for using the model. Learn how to teach, plan, and assess fundamental movement skills, and facilitate the California Physical Education Standards through the context of softball and tennis. (Plus-minus letter grade only)

KIN 312 Youth Development Instructional Analysis II (Units: 3)

Prerequisites: Restricted to Kinesiology majors and Athletic Coaching minors; upper-division standing; KIN 240* or KIN 250*, and any GVAR course*.

Extended implementation of TPSR to the broader field of youth development, including research conducted, assessment tools, unit plan development, and specifically how TPSR and Youth Development facilitate the California Physical Education Standards. Continued emphasis on how to teach, plan, and assess fundamental movement skills through the context of basketball and volleyball. (Plus-minus letter grade only)

KIN 314 Principles of Strength and Conditioning (Units: 3)

Prerequisites: KIN 240* or KIN 250*.

Science and methods of instruction related to resistance training and muscular strength activities. How to safely and properly perform a variety of muscular strengthening exercises. Introduces and reviews fundamental principles of physiology and kinesiology underlying the ability to properly perform and instruct individuals of varying ages and physical abilities in the safe and effective performance of a wide variety of muscular strength and conditioning exercises. Includes exercises using a variety of resistance equipment including free weights and machines. (Plus-minus letter grade only)

KIN 322 Sport in America (Units: 3)

Prerequisites: Upper-division standing; two courses from GE Areas A1, A2, A3, or B4; or permission of the instructor.

Interpretation of contemporary issues in sport from the perspective of American society. Professional sport, women in sport, and youth sport using a multimedia approach that includes film, print media, literature and historical texts.

KIN 325 Computer Applications in Kinesiology (Units: 3)

Prerequisites: Restricted to upper-division standing; KIN 250 with a grade of C or better; or permission of the instructor.

Information management for Kinesiology applications using computerized word processing, spreadsheets, graphics, outlining, and databases. Lecture, 2 units; activity, 1 unit.

KIN 331 Peak Performance (Units: 3)

Prerequisites: Restricted to upper-division standing; GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better; or permission of the instructor.

Examination and understanding of the stress process, assessments of stress, and the application of psychological intervention strategies to help bring about optimum performance in human movement as well as other endeavors. Practical application for maximizing human potential.

Course Attributes:

- Social Justice
- Global Perspectives
- UD-D: Social Sciences
- E1 LLD Pre-Fall 2019

KIN 355 Science, Sport, and Fitness (Units: 3)

Prerequisites: GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better or permission of the instructor.

Physiological and mechanical principles of sport and fitness. Evaluation of myths and truths about sport science, nutrition, injury prevention, physiology of exercise, sport, and individualized training programs.

Course Attributes:

- UD-B: Physical Life Science
- E1 LLD Pre-Fall 2019

KIN 384GW Research Methods in Kinesiology - GVAR (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; GE Area A2; KIN 240* or KIN 250*; MATH 124* or equivalent; all with grades of C or better. Concurrent enrollment in KIN 251.

Understanding and applying research methods and statistics relevant to studying kinesiology. Topics include sampling, validity, reliability, experimental design, qualitative approaches, and statistical analyses. Development of students' critical thinking and writing abilities specific to the discipline of kinesiology. (Plus-minus ABC/NC)

Course Attributes:

- Graduation Writing Assessment

KIN 401 Elementary School Physical Education: K-5 (Units: 3)

Prerequisites: Restricted to upper-division standing; KIN 240 or LS 200 or CAD 210 or E ED 250 or equivalent; or permission of the instructor.

Teaching education on fitness and movement skill programs for children. California and National Physical Education Standards-based Curricula for K-5. Learning outcomes, planning, assessment, peer teaching experience, and education on quality physical education programs. Lecture, 2 units; activity, 1 unit.

KIN 402 Practicum in Physical Education, N-5 (Unit: 1)

Prerequisites: Restricted to upper-division standing; two courses in GE Areas A and B4; KIN 250 or equivalent; or permission of the instructor. Concurrent enrollment in KIN 401 required for Physical Education majors.

Directed experiences as teaching assistants of physical education in pre-school and elementary school programs.

KIN 404 Sport and Exercise Psychology (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors and Athletic Coaching minors; KIN 384GW* or other GVAR* course (may be taken concurrently).

Psychological factors influencing the performance of physical activity in sport, exercise, educational, and rehabilitative settings, including social implications, theoretical perspectives, and application of research findings in the areas of sport and exercise psychology. (Plus-minus letter grade only) [Formerly KIN 504]

KIN 434 Sport-Based Youth Development (Units: 3)

Prerequisite for KIN 734: Restricted to graduate Kinesiology students. Prerequisite for KIN 434: Restricted to upper-division Kinesiology majors and Athletic Coaching minors.

A survey of the theories, principles, practices, and research related to programs that promote youth development outcomes through sport participation. (Plus-minus letter grade only) (KIN 734/KIN 434 is a paired course offering. Students who complete the course at one level may not repeat the course at the other level.)

KIN 437 Physical Dimensions of Aging (Units: 3)

Prerequisite for KIN 737: Graduate Kinesiology students or permission of the instructor.

Prerequisites for KIN 437: Restricted to upper-division Kinesiology majors; BIOL 212*; BIOL 220* or BIOL 328*, and KIN 384GW* or equivalents with grades of C or better; GPA of 3.0 or higher; or permission of the instructor.

Study of the physical aspects of aging from a developmental perspective in the adult years. The role of exercise and activity in the maintenance of functionality. Hypotheses of physical decline and the implications of age-related physical changes for daily living and activity patterns. (KIN 737/KIN 437 is a paired course offering. Students who complete the course at one level may not repeat the course at the other level.)

KIN 457 Culture, Gender and Movement (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 384GW*.

Transmission of culture, values, and gender roles through a variety of movement forms. Interpretation of the cultural dimension of movement.

Course Attributes:

- Global Perspectives

KIN 480 Anatomical Kinesiology (Units: 4)

Prerequisites: Restricted to upper-division Kinesiology majors; BIOL 220 or BIOL 328 or equivalent with a grade of C or better; KIN 384GW* (may be taken concurrently).

Structure and function of the musculoskeletal system in movement; relation to external forces; principles of aggregate muscle function. Application to exercise, skill, activities of daily living. Lecture, 3 units; laboratory, 1 unit. (Plus-minus letter grade only)

KIN 482 Exercise Physiology (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; completion of BIOL 212*, or equivalent, KIN 240 or KIN 250, and KIN 384GW*.

Examination of the acute physiological responses to exercise and the adaptations that occur with systematic exercise training.

KIN 483 Exercise Physiology Laboratory (Unit: 1)

Prerequisites: Restricted to upper-division Kinesiology majors; BIOL 212* and BIOL 213* or equivalents with grades of C or better; KIN 384GW*; or permission of the instructor. Concurrent enrollment in KIN 482.

Effects of various types of exercise on the body's physiological systems. Laboratory. (Plus-minus letter grade only)

KIN 485 Biomechanics (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; PHYS 101 and PHYS 102 or PHYS 111 and PHYS 112; KIN 384GW or equivalent; KIN 480*; all with grades of C or better.

Mechanical principles applied to analyzing human movement. Interaction of mover and physical environment, efficiency in tasks of daily living, work settings, sport, and exercise. (Plus-minus letter grade only).

KIN 486 Motor Learning (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors and Athletic Coaching minors; KIN 384GW* or other GVAR* course (may be taken concurrently).

Acquisition and development of motor skills with application to teaching and therapeutic intervention. Coordination, perception, task analysis, learning, and the facilitation of skill acquisition.

KIN 487 Motor Development (Units: 3)

Prerequisites: Restricted to upper-division standing; GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better; or permission of the instructor.

A developmental perspective on the physical, psychological, and social factors which contribute to the acquisition of motor control and movement performance from the prenatal stage through old age.

Course Attributes:

- UD-B: Physical Life Science

KIN 489 History and Philosophy of Sport and Physical Activity (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 384GW*.

History and philosophy of physical activity from ancient times to the early 20th century. Evolution of attitudes towards exercise and physical fitness.

KIN 490 Introduction to Sport and Fitness Program Management (Units: 3)

Prerequisite: Restricted to upper-division Kinesiology majors.

Introduction to the academic and professional field of sport and fitness administration and management by grounding students in the history, socio-cultural context, and structure of community and private fitness clubs and university, elite amateur, and professional sports organizations.

KIN 502 Sport and Social Issues (Units: 3)

Prerequisites: Restricted to upper-division standing; GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better; or permission of the instructor.

Examines contemporary issues in sport from the perspectives of sociology and cultural studies. Focus on the intersections between sport and education, media, and politics, as well as on gender, race, ethnicity, and class dynamics in sport. Emphasis on the application of social justice concepts to sport.

Course Attributes:

- UD-D: Social Sciences
- Am. Ethnic & Racial Minorities
- Social Justice

KIN 510 Sport, Movement, and Screen Culture (Units: 3)

Prerequisites: Restricted to upper-division standing; GE Areas A1*, A2*, A3*, and B4* all with grades of C- or better; or permission of the instructor.

Examine how the cultural, political, psychological, and historical dimensions of sport and other forms of movement are portrayed in feature films and documentaries. Analyze presentations of identity, power, performance, social justice, and the body.

Course Attributes:

- UD-C: Arts and/or Humanities
- Global Perspectives
- Social Justice

KIN 536 Introduction to Adapted Physical Education (Units: 3)

Prerequisites: Restricted to upper-division standing; KIN 240* or KIN 250* with a grade of C or better; 6 units of upper-division KIN courses; GE Areas A and B4; or permission of the instructor.

Mild and moderate disabling conditions throughout the lifespan as they relate to the development and efficiency of movement. Implications for design and conduct of movement programs, inclusion, and evaluation of individual needs. Lecture, 2 units; activity, 1 unit.

KIN 537 Movement for Individuals with Severe Disabilities (Units: 3)

Prerequisites: Restricted to upper-division standing; KIN 240* or KIN 250* with a grade of C or better; 6 units of upper-division KIN courses; or permission of the instructor.

Severe and profound disabling conditions throughout the lifespan as they relate to the development and efficiency of movement. Implications for design and conduct of movement programs, inclusion, and evaluation of individual needs.

KIN 538 Therapeutic Exercise (Units: 3)

Prerequisites: Restricted to upper-division standing Kinesiology majors; KIN 480* and KIN 482*.

Fitness programming, conditioning, and stress reduction for individuals who are disabled. Factors that influence exercise and the disabled include positioning, use of assistive devices, specifically designed equipment, wheelchairs, and utilization of personal aids.

KIN 539 Motor Assessment of Individuals with Disabilities (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 384GW*.

Evaluation and diagnosis of motor ability problems for individuals with disabilities. Evaluation methods and the development of individual education plans.

KIN 555 Exercise Testing and Prescription (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 480*, KIN 482*, and KIN 483*; or permission of the instructor.

Principles and practices of prescribing exercise to healthy individuals and individuals with conditions such as cardiac problems, asthma, diabetes, pregnancy, and physical disabilities. Assists in preparation for ACSM certification. Lecture, 2 units; activity, 1 unit. (Plus-minus letter grade only)

KIN 570 Directed Coaching Experience (Unit: 1)

Prerequisites: Restricted to upper-division standing; KIN 240 or KIN 250; 6 units in the coaching minor sequence; or permission of the instructor.

Assistant coaching experience, recreation leagues, youth, interscholastic or intercollegiate athletics. The coaching site must be approved in advance. (CR/NC grading only)

KIN 580 Middle and High School Physical Education: Grades 6-12 (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 240*, KIN 384GW*, and KIN 486* or KIN 487*; concurrent enrollment in KIN 581.

Strategies and teaching styles to establish the environment for learning motor skills. Long- and short-term planning, class management and communication techniques, evaluation procedures, and basic legal considerations for physical education programs in grades 6 to 12. Lecture, 2 units; activity, 1 unit.

KIN 581 Practicum in Middle and High School Physical Education (Unit: 1)

Prerequisites: Restricted to upper-division Kinesiology majors; enrollment in a teaching credential program; KIN 384GW*; concurrent enrollment in KIN 580.

Directed experiences in teaching and coaching youth and adolescents in activities common to middle and high school physical education programs. (Plus-minus letter grade only)

KIN 604 Advanced Exercise Psychology (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 404*.

Focus on understanding the psychological principles that promote and maintain positive exercise attitudes, emotions, and behaviors of participants. Covers psychological theories for understanding and predicting health-oriented exercise behavior, and psychological interventions for increasing exercise participation and adherence.

KIN 620 Advanced Practicum in Kinesiology (Units: 2)

Prerequisites: Restricted to upper-division standing; KIN 250 with a grade of C or better; GE Areas A1, A2, A3, and B4; or permission of the instructor and associate chair.

Individually directed experiences as student trainers, varsity sport managers, or special leadership assistants in Kinesiology. [CSL may be available]

KIN 621 Advanced Practicum in Kinesiology (Units: 2)

Prerequisites: Restricted to upper-division standing; KIN 250 with a grade of C or better; or permission of the instructor and associate chair.

Individually directed experiences as student trainers, varsity sport managers, or special leadership assistants in Kinesiology.

KIN 630 Internship in Adapted Physical Education (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 384GW*; KIN 536*, KIN 537*, and KIN 538* (may be taken concurrently); or permission of the instructor.

Directed experiences with exceptional individuals participating in PE programs in schools or other agencies; supervised development of individual plans. Includes weekly seminars.

KIN 636 Neuromotor Control Processes (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; BIOL 100 and BIOL 101 or BIOL 230; BIOL 220 or BIOL 328; and KIN 486* with a grade of C or better; or permission of the instructor.

Neuromuscular processes underlying coordination and control of movement in the context of skill. (Plus-minus letter grade only)

KIN 680 Musculoskeletal Biomechanics and Human Movement (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 485* with a grade of C or better; or permission of the instructor.

Structure, function, and mechanics of the musculoskeletal system. Analytic tools and techniques to understand the mechanical properties and structural behavior of biological tissues and the interrelationship of force and motion. Identification and measurement of biomechanical correlates as means of understanding coordination and movement strategies in the context of development, aging, performance, injury, and rehabilitation. (Plus-minus letter grade only)

KIN 683 Advanced Exercise Physiology (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 482* and KIN 483* with grades of C or better; or permission of the instructor.

Theory and application of advanced principles related to exercise metabolism, muscle physiology, environmental stress, and aging/health-related aspects of exercise and physical activity.

KIN 685 Projects in the Teaching of Kinesiology (Units: 1-3)

Prerequisites: Restricted to upper-division Kinesiology majors; permission of the associate chair and supervising instructor; a grade of B or better in the course in which the student will be an instructional aide.

Teaching experiences in Kinesiology through assigned instructional projects in a classroom or laboratory, and under the guidance of a faculty member. Training in pedagogical principles, including supervised classroom teaching activities. Units may not be applied towards fulfilling major requirements. (Students may earn a maximum of 4 units toward the baccalaureate degree for any course(s) numbered 685 regardless of discipline.)

KIN 690 Internship in Fitness/Wellness (Units: 3)

Prerequisites: Restricted to upper-division Kinesiology majors; KIN 482, KIN 483, and KIN 490; or permission of the instructor. KIN 555 is strongly recommended. Attendance at MANDATORY meeting at the end of the semester PRIOR to enrollment is required. Dates and times will be posted in the gymnasium.

Work as a trainee with professionals in the field of fitness/wellness and extend learning experiences beyond those acquired on campus.

KIN 696 Kinesiology Community-Based Internship (Units: 3)

Prerequisites: Upper-division Kinesiology majors; KIN 482, KIN 483, KIN 485, KIN 486, and KIN 504; or permission of the instructor. Enrollment priority given to graduating seniors.

Kinesiology community-based internship with youth in underserved communities coupled with a theory-practice project. (Plus-minus letter grade only) [CSL may be available]

KIN 697 Integrative Research Seminar (Units: 2)

Prerequisites: Restricted to upper-division Kinesiology majors; priority enrollment for graduating seniors; KIN 404*, KIN 457*, KIN 482*, KIN 483*, KIN 485*, and KIN 486* (all may be taken concurrently); concurrent enrollment in KIN 698; or permission of the instructor.

Critical analysis and research design to explore a topic in exercise and movement science from a multidisciplinary perspective. (Plus-minus letter grade only)

KIN 698 Senior Research Project (Unit: 1)

Prerequisites: Restricted to upper-division Kinesiology majors; priority enrollment for graduating seniors; KIN 404*, KIN 457*, KIN 482*, KIN 483*, KIN 485*, and KIN 486* (all may be taken concurrently); concurrent enrollment in KIN 697; or permission of the instructor.

Conduct an appropriate research study in the student's area of concentration. Laboratory. (Plus-minus letter grade only)

KIN 699 Independent Study (Units: 1-3)

Prerequisites: Restricted to upper-division standing; overall GPA of 3.0 or above; permission of the associate chair and supervising instructor.

Intensive study of a particular problem under the direction of an instructor in the department. May be repeated for a total of 6 units. [CSL may be available]

KIN 710 Research in Kinesiology (Units: 3)

Prerequisites: Graduate standing; undergraduate kinesiology degree; a computer and a statistics course; or permission of the instructor.

Descriptive, quasi-experimental, experimental, and qualitative research in kinesiology. (Plus-minus letter grade only)

KIN 715 Research Designs and Analysis (Units: 3)

Prerequisite: KIN 710 or permission of the instructor.

Designs and statistics in descriptive, experimental, quasi-experimental, and qualitative research. (Plus-minus letter grade only)

KIN 730 Advanced Biomechanics (Units: 3)

Prerequisites: Graduate standing; undergraduate biomechanics or kinesiology course; or permission of the instructor.

Techniques for qualitative and quantitative analysis of movement as a means of understanding movement processes.

KIN 733 Motor Learning (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

Factors influencing the development and acquisition of motor skills from a multidisciplinary perspective. Current theory and research in motor skills are discussed with implications for practice. (Plus-minus letter grade only)

KIN 734 Sport-Based Youth Development (Units: 3)

Prerequisite for KIN 734: Restricted to graduate Kinesiology students. Prerequisite for KIN 434: Restricted to upper-division Kinesiology majors and Athletic Coaching minors.

A survey of the theories, principles, practices, and research related to programs that promote youth development outcomes through sport participation. (Plus-minus letter grade only) (KIN 734/KIN 434 is a paired course offering. Students who complete the course at one level may not repeat the course at the other level.)

KIN 736 Advanced Neuromotor Control (Units: 3)

Prerequisite: Graduate standing or permission of the instructor.

Advanced neuromotor control will cover the current theories and underlying neurophysiology of motor control and learning. (Plus-minus letter grade only)

KIN 737 Physical Dimensions of Aging (Units: 3)

Prerequisite for KIN 737: Graduate Kinesiology students or permission of the instructor.

Prerequisites for KIN 437: Restricted to upper-division Kinesiology majors; BIOL 212*; BIOL 220* or BIOL 328*, and KIN 384GW* or equivalents with grades of C or better; GPA of 3.0 or higher; or permission of the instructor.

Study of the physical aspects of aging from a developmental perspective in the adult years. The role of exercise and activity in the maintenance of functionality. Hypotheses of physical decline and the implications of age-related physical changes for daily living and activity patterns. (KIN 737/KIN 437 is a paired course offering. Students who complete the course at one level may not repeat the course at the other level.)

KIN 740 Advanced Exercise Metabolism (Units: 3)

Prerequisites: Graduate standing; KIN 482 or equivalent; or permission of the instructor.

Historical and contemporary evaluation of energy metabolism, nutrition, and neuromuscular functions.

KIN 742 Exercise and Cardiovascular Dynamics (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

Understanding the regulation of the cardiovascular system as it relates to regulatory mechanisms for acute and chronic exercise. (Plus-minus letter grade only)

KIN 746 Clinical Exercise Physiology (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

Examination of acute and chronic responses to exercise in patients with various cardiac, pulmonary, metabolic, and musculoskeletal diseases. Emphasis is placed on physical activity epidemiology, the pathophysiology of the disease process, assessment of disease severity, and current literature examining the effectiveness of physical activity/exercise training as a treatment strategy. (Plus-minus letter grade only)

KIN 750 Curriculum and Instruction I: Physical Education (Units: 3)

Prerequisite: Admission to credential program or permission of instructor.

Principles and practices for teaching physical education, including the planning of content and instruction with consideration of student learning and state standards. (Plus-minus letter grade only)

Course Attributes:

- Teacher Credential Program Crs

KIN 751 Curriculum and Instruction II: Physical Education (Units: 3)

Prerequisites: KIN 750; concurrent enrollment in S ED 660 or S ED 751.

Principles and practices for teaching physical education to all learners with additional emphasis on assessment, reflective practice, and technology. (Plus-minus letter grade only)

Course Attributes:

- Teacher Credential Program Crs

KIN 755 Exercise Electrocardiography, Testing, and Prescription (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

In-depth theoretical background for exercise, electrocardiography, testing, and prescription for individuals and groups in clinical, corporate, community, and occupational settings. (Plus-minus letter grade only)

KIN 763 Motivation and Performance (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

Psychological perspectives of human performance and research findings in the areas of sport and exercise psychology. Awareness of literature focused on the psychological dimension. (Plus-minus letter grade only)

KIN 766 Sociocultural Bases of Physical Activity (Units: 3)

Prerequisite: Graduate standing or permission of the instructor.

Sociocultural factors underlying participation in physical activity, sport, and exercise. Implications for the practitioner.

KIN 781 Muscle Physiology (Units: 3)

Prerequisite: Restricted to graduate Kinesiology students or permission of the instructor.

Basic and applied physiological properties of skeletal muscles (from the molecular to whole muscle level), in the context of the physiological adaptations from disuse, injury, and training. (Plus-minus letter grade only) [Formerly paired with KIN 681]

KIN 795 Seminar in Kinesiology (Units: 3)

Prerequisites: KIN 710 and KIN 715; 15 units towards advancement to candidacy (ATC).

Interdisciplinary seminar on relevant kinesiology issues, areas of interest, problems, and future directions. Involves extensive analysis of recent and significant research. (Plus-minus letter grade only)

KIN 895 Master's Project in Kinesiology (Units: 3)

Prerequisites: Completion of core and concentration requirements; permission of the instructor and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies.

Development of a research question on a topic approved by faculty with literature review, methodology and statistical analysis. Includes proposal and oral presentation. Advancement to Candidacy and Proposal for Culminating Experience Requirement must be approved by Graduate Studies before registration. (CR/NC grading only)

KIN 896 Directed Reading in Kinesiology (Units: 3)

Prerequisites: 21 units towards Advancement to Candidacy; permission of the adviser and instructor.

Integrating information in movement and exercise science or a significant issue. May be repeated once for a total of 6 units.

KIN 897 Independent Research in Kinesiology (Units: 3)

Prerequisites: KIN 710 and KIN 715 or equivalent; 12 graduate units towards Advancement to Candidacy; and permission of the graduate adviser.

Independent, original research investigation supervised by a graduate adviser. For students who selected the thesis culminating experience. (CR/NC grading only)

KIN 898 Master's Thesis (Units: 3)

Prerequisites: Graduate Kinesiology students; KIN 897; and permission of the graduate major adviser and instructor; and approval of Advancement to Candidacy (ATC) and Culminating Experience (CE) forms by Graduate Studies. Advancement to Candidacy and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

(CR/NC grading only)

KIN 899 Independent Study (Units: 1-3)

Prerequisites: Graduate standing with demonstrated ability to do independent work and permission of the adviser and supervising instructor.

Independent study or research is planned, developed, and completed under the direction of a faculty member. May be repeated for a total of six units. (CR/NC grading only)