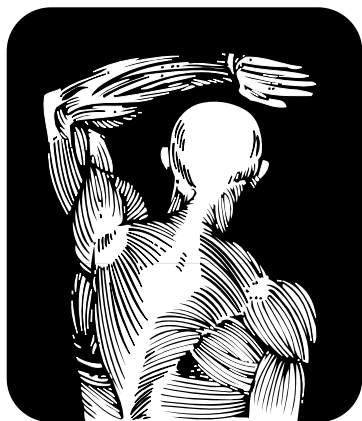




NOTE:

This document is specific to the
2002-2004 printed catalog.



kinesiology

**BACHELOR OF SCIENCE:
ATHLETIC TRAINING
ADAPTED PHYSICAL EDUCATION SPECIALIST
CREDENTIAL
SUBJECT MATTER PROGRAM
MINOR
MASTER OF SCIENCE**

PROGRAM DESCRIPTION

Kinesiology is an academic area of study concerned with the art and science of human movement. The department offers a BS degree with three options of study (Physical Education, Athletic Training, and Exercise Science), an MS with two options of study (Exercise Science and Sport Performance), and a Personal Trainer/Strength and Conditioning Certificate. A dance concentration is currently being developed that meets the standards of the Commission on Teacher Credentialing. Completion of the concentration, along with completion of the Physical Education Option, qualifies students for entry into the Single Subject Credential Program. An Adapted Physical Education Specialist Credential, a Personal Trainer/Strength and Conditioning Certificate program, and three minor programs (Coaching, Secondary Teaching, and Elementary Teaching) are also available.

The undergraduate **Physical Education Option** is an accredited program which meets the standards for the California Commission on Teacher Credentialing for subject matter preparation for teaching physical education. Upon completion of this program, students need to take additional units in student teaching and other professional preparation courses to be certified to teach physical education in California. The Adapted Physical Education Specialist Credential is for students preparing to work with children with disabilities.

The **Athletic Training Option** is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP). The program prepares students for careers in athletic training, sports medicine, and other

FACULTY

Fred Baldini, *Department Chair*

Fred Baldini, Lois Boulgarides, Bruce Drummond, William Edwards, Louis Elfenbaum, Doris Flores, Nancy Hennefer, Alan Hreljac, Julie Kuehl, William Kutzer, John Maxwell, Pamela Milchrist, Scott Modell, Joan Neide, Jennifer Park, Daryl Parker, Ronald Peek, Roberto Quintana, Robin Reese, John Skube, Maureen Smith, Gloria Solomon, Harry Theodor, Lindy Valdez, Jayne Willett

Department Office, Solano Hall 3002, (916) 278-6441

paramedical areas. Upon completion of the degree, students are qualified to take the national certification exam to become an NATABOC Certified Athletic Trainer.

The **Exercise Science Option** has two concentrations of study: 1) Exercise Science, and 2) Therapeutic Exercise and Rehabilitation. The Exercise Science concentration prepares students for graduate work in the areas of exercise and sport science, as well as for careers in personal training, cardiac rehabilitation, wellness, fitness consulting in business/industry and health clubs, and other paramedical and health related fields. The Therapeutic Exercise and Rehabilitation concentration provides students with in-depth science-based coursework which meets the prerequisite requirements for most Physical Therapy, Occupational Therapy, and other health related professional preparation programs. Admission to professional preparation programs is competitive and it is critical that students work closely with an assigned advisor to plan coursework.

FEATURES

The Kinesiology facility includes state of the art high tech laboratories for motor learning, biomechanics, exercise physiology, sport performance, physical therapy and athletic training. Several activity spaces are available, including a dance, weight training and gymnastics room. Outside facilities include a diving and racing pool, racquetball and tennis courts, jogging trails, sports fields, putting green and driving range.

Kinesiology majors at CSUS have opportunities for unique intern experiences at the undergraduate level. In the Physical Education Option, students observe and teach children in both on and off campus field sites. Students concentrating in the Athletic Training area serve their

CAREER POSSIBILITIES

Teacher • Athletic Trainer • Corrective Therapist • Exercise Test Technologist • Community Center Leader • Personal Trainer • Rehabilitation • Sportscaster • Coach • Resort Sports Coordinator • Wellness Coordinator • Cardiac Rehabilitator • Fitness Consultant

internship under certified athletic trainers in the community colleges and on the campus. CSUS is the only institution in Northern California that offers an accredited CAAHEP undergraduate Athletic Training Option. Exercise Science students gain useful experience through their work in the UCD Medical Center with its cardiac rehabilitation program. Students interested in Physical Therapy build a valuable background of experience in community hospitals and rehabilitation centers. At the graduate level, students engage in a variety of research projects, both on and off campus.

Students interested in majoring or minoring in Kinesiology are encouraged to go to the Kinesiology and Health Science Department office for an assignment to a faculty advisor.

DEGREE REQUIREMENTS • BS

Units required for Major: 74-83

Minimum total units for the BS: 121-123

Note: Additional units may be required to meet the CSUS foreign language requirement. See page 86.

Courses in parentheses are prerequisites.

Bachelor of Science Physical Education Option (76 units)

A. Required Core (20 units)

- (4) BIO 025 Human Anatomy and Physiology I
- (4) BIO 026 Human Anatomy and Physiology II (BIO 025 or instructor permission)
- (3) KINS 151 Kinesiology (BIO 022 or equivalent*)
- (3) KINS 151D Applied Biomechanics (Corequisite: KINS 138)
- (3) KINS 152 Physiology of Exercise (BIO 131 or equivalent*)
- (3) KINS 158 Motor Learning (BIO 022 or equivalent*)

*BIO 025 and BIO 026 are considered equivalent prerequisites for these courses for Physical Education Option majors.

B. Required Upper Division Courses (9 units)

- (3) KINS 134 Historical and Philosophical Foundations of Physical Education
- (3) KINS 137 Sociology of Sport
- (3) KINS 160 Sport and Exercise Psychology

C. Required Pedagogy Courses (27 units)

- (3) KINS 130 Physical Education for Children (KINS 138; Corequisites: KINS 135, KINS 149)
- (3) KINS 131 Curriculum and Methods of Teaching Secondary School Physical Education (KINS 138)
- (3) KINS 133 Integration of Concepts
- (3) KINS 135 Assessment Strategies in Physical Education
- (3) KINS 138 Teaching Strategies in Physical Education
- (3) KINS 177 Adapted Physical Education: History and Philosophy
- (3) EDBM 105 Multicultural Education for a Pluralistic Society
- (3) EDTE 106 Educational Psychology
- (3) EDTE 384 Teaching Reading in the Secondary Schools

D. Skill Analysis (20 units)

Note: KINS 138 is a prerequisite for all skill analysis courses in the 140 series. May be taken concurrently with all the 140 series courses except KINS 142.

- (1) KINS 091 Creative Aerobic Fitness I
- (2) KINS 140 Analysis of Tumbling and Gymnastics
- (2) KINS 141 Analysis of Racquet Sports
- (2) KINS 142 Analysis of Rhythm and Dance
- (1) KINS 143 Analysis of Track and Field
- (2) KINS 144 Analysis of Weight Training
- (3) KINS 145A Analysis of Team Passing Games
- (1) KINS 145B Analysis of Softball and Flag Football
- (1) KINS 146 Analysis of Volleyball
- (1) KINS 147 Analysis of Self Defense
- (1) KINS 148 Analysis of Nontraditional Games and Outdoor Activities
- (1) KINS 149 Analysis of Health-Related Fitness
- (1) Select one of the following:
 - KINS 021 Beginning Swimming
 - KINS 022A Lifeguard Training (Proficiency in crawl, breast, side and elementary backstroke)
 - KINS 012A Intermediate Swimming
- (1) Select one of the following:
 - KINS 064 Beginning Golf
 - KINS 016D Intermediate Golf
 - KINS 106A Advanced Golf

Note: Students seeking a teaching credential also must complete the Professional Education Program in the College of Education in addition to other requirements. Consult a Physical Education Department Credential Advisor for details. Information about the Professional Education Program may be obtained from the Teacher Preparation Program office (Eureka Hall 216, 278-6403). Physical Education (Teaching Option) majors must achieve a grade of "C" or better in all courses included in the major.

Additional Requirements for a Single Subject Teaching Credential in Physical Education K-12

Note: The following certifications must be attained before middle/secondary student teaching can begin:

- Current Water Safety Instructor Certificate **OR**
- American Red Cross Emergency Water Safety Course Certification
- Current CPR Certification
- Standard First Aid
- (7) EDTE 480A Student Teaching - Single Subject Credential (Admission to Teacher Preparation Program)
- (1) KINS 198A Seminar in Physical Education - Elementary
- (7) EDTE 480B Student Teaching - Single Subject Credential (Admission to Teacher Preparation Program)
- (1) KINS 198B Seminar in Physical Education - Secondary

Athletic Training Option (80-83 units)

A. Required Core (20 units)

- (4) BIO 022* Introductory Human Anatomy (BIO 010 or BIO 020 or instructor permission)
- (4) BIO 131* Systemic Physiology (BIO 010 or BIO 020 or BIO 022 and one year of college chemistry)
- (3) KINS 151* Kinesiology (BIO 022 or equivalent)
- (3) KINS 151A* Biomechanics (KINS 151)
- (3) KINS 152* Physiology of Exercise (BIO 131 or equivalent)
- (3) KINS 158 Motor Learning (BIO 022 or equivalent)

B. Required Lower Division Courses (18 units)

- (3) BIO 010 Basic Biological Concepts **OR**
BIO 020 Biology: A Human Perspective
- (5) CHEM 001A General Chemistry (High school algebra (two years) and high school chemistry; or equivalent) **OR**
CHEM 006A Introduction to General Chemistry (One year high school algebra)
- (5) CHEM 006B Introduction to Organic and Biological Chemistry (CHEM 001A or CHEM 006A) **OR**
CHEM 001B General Chemistry (CHEM 001A)
- (3) FACS 010* Nutrition and Wellness
- (2) NURS 014 Pharmacology (BIO 131, or equivalent [may be taken concurrently])

C. Required Upper Division Courses (42-45 units)

- (2) KINS 144 Analysis of Weight Training
 - (3) KINS 154A* Principles and Techniques in a Clinical Setting
 - (3) KINS 154B* Management and Health Care Administration in Athletic Training
 - (1) KINS 154C* Therapeutic Modalities Laboratory
 - (2) KINS 155A* Clinical Evaluation of the Upper Extremity (BIO 022, KINS 154A)
 - (2) KINS 155B* Clinical Evaluation of the Lower Extremity (BIO 022, KINS 154A)
 - (3) KINS 156* Care of Athletic Injuries
 - (2) KINS 156A* Emergency Response (instructor permission)
 - (3) KINS 157* Therapeutic Exercise (BIO 022, KINS 151, KINS 155A or KINS 155B; or equivalent)
 - (3) KINS 160* Sport and Exercise Psychology
 - (1-3) KINS 194H* Assigned Field Experience in Athletic Training
 - (1-2) KINS 195C* Observation in Athletic Training (Phase I)
 - (4) KINS 195D* Practicum in Athletic Training (Phase II)
 - (4) KINS 195D* Practicum in Athletic Training (Phase III)
 - (4) KINS 195D* Practicum in Athletic Training (Phase IV)
 - (4) KINS 195D* Practicum in Athletic Training (Phase V)
- *Required to meet CAAHEP accreditation. (See Program Director for all requirements.)

Athletic Training Credential

Athletic Training students interested in teaching must meet the California Teaching Commission Standards prior to entrance into a credential program. Courses to meet standards can be taken concurrently with the Athletic Training courses. See Program Director for appropriate coursework.

Exercise Science Option (74-76 units)

A. Required Core (20 units)

- (4) BIO 022* Introductory Human Anatomy (BIO 010 or BIO 020)
- (4) BIO 131* Systemic Physiology (BIO 010, or BIO 020 or BIO 022 and one year of college chemistry)
- (3) KINS 151* Kinesiology (BIO 022 or equivalent)
- (3) KINS 151A* Biomechanics (KINS 151)
- (3) KINS 152* Physiology of Exercise (BIO 131 or equivalent)
- (3) KINS 158 Motor Learning (BIO 022 or equivalent)

Exercise Science Track

B. Required Lower Division Courses (17 units)

- (3) BIO 010 Basic Biological Concepts **OR**
BIO 020 Biology: A Human Perspective
- (5) CHEM 006A Introduction to General Chemistry (One year high school algebra)
- (5) CHEM 006B Introduction to Organic and Biological Chemistry (CHEM 001A or CHEM 006A)
- (4) PHYS 002 Topics in Elementary Physics (A recent one year course in high school algebra and one year of plane geometry or a college course in algebra [MATH 009])

C. Required Upper Division Courses (32 units)

- (3) EDS 140 Introductory Behavioral Statistics
- (3) FACS 113 Nutrition and Metabolism (BIO 010 or BIO 020; CHEM 001A or CHEM 006A. Passing score on WPE)
- (3) KINS 132 Planning, Designing and Managing A Fitness Center
- (3) KINS 137 Sociology of Sport **OR**
KINS 160 Sport and Exercise Psychology
- (3) KINS 139 Leadership and Communication
- (2) KINS 144 Analysis of Weight Training
- (3) KINS 153 Cardiovascular Testing and Exercise Prescription (KINS 152 or instructor permission)
- (3) KINS 154A Principles and Techniques in the Clinical Setting
- (3) KINS 156 Care of Athletic Injuries
- (3) KINS 194B Assigned Internship in Exercise Science (KINS 151 and/or KINS 152; or instructor permission) **OR**
KINS 195B Directed Internship in Exercise Science (KINS 151 and/or KINS 152; or instructor permission)
- (3) Select one of the following:
HLSC 150 Aging and Health
NURS 163 Holistic Approach to Aging (passing score on WPE)
KINS 136 Sport and Aging
PSYC 150 Psychological Aspects of Aging (PSYC 001 or PSYC 005)

D. Electives (5-6 units)

- (5-6) Select 5-6 units from the following:
KINS 152A Fundamentals of Exercise Programs (KINS 152)
- KINS 152B Exercise Physiology of Women
- KINS 152C Prolonged Exercise (an introductory college course in Biology or Zoology)
- KINS 152D Blood Lactate and Exercise (KINS 152)
- KINS 153C Exercise Mini Series: Electrocardiography
- KINS 196 Experimental Offerings in Kinesiology

Note: Other elective courses can be used with the permission of an advisor.

Therapeutic Exercise and Rehabilitation Track (formerly Pre-Physical Therapy)

B. Required Lower Division Courses (17 units)

- (3) BIO 010* Basic Biological Concepts **OR**
BIO 020* Biology: A Human Perspective
- (5) CHEM 006A* Introduction to General Chemistry (One year high school algebra) **OR**
CHEM 001A General Chemistry
- (5) CHEM 006B* Introduction to Organic and Biological Chemistry (CHEM 001A or CHEM 006A) **OR**
CHEM 001B General Chemistry
- (4) PHYS 005A* General Physics: Mechanics, Heat, Sound (Recently completed three years of high school algebra and geometry; and a college course in algebra and trigonometry (MATH 009 recommended) for those having an inadequate mathematics background)

C. Required Upper Division Courses (11 units)

- (3) KINS 153 Cardiovascular Testing and Exercise Prescription (KINS 152 or instructor permission)
- (3) KINS 154A Principles and Techniques in the Clinical Setting
- (2) KINS 155A Clinical Evaluation of the Upper Extremity (BIO 022, KINS 154A) **OR**
KINS 155B Clinical Evaluation of the Lower Extremity (BIO 022, KINS 154A)
- (3) KINS 194F Assigned Internship in Allied Health

D. Required Therapeutic Exercise and Rehabilitation Electives (6 units)

- (6) Select two from the following:
 - KINS 139 Leadership and Communication
 - KINS 156 Care of Athletic Injuries
 - KINS 157 Therapeutic Exercise (KINS 151, KINS 155A or KINS 155B, BIO 022; or equivalent)
 - KINS 176* Perceptual Motor Development

E. Additional Therapeutic Exercise and Rehabilitation Electives (22 units)

Select from the following:

- (4) PHYS 005B* General Physics: Light, Electricity and Magnetism, Modern Physics (PHYS 005A or instructor permission)
- (3) KINS 152A Fundamentals of Exercise Programs (KINS 152)
- (4) BIO 122* Advanced Human Anatomy (BIO 022)
- (3) BIO 123* Neuroanatomy (BIO 022)
- (3) BIO 132* Neurophysiology (BIO 010 or BIO 020, and one year of college chemistry)
- (4) BIO 139 General Microbiology (BIO 010, BIO 011, BIO 012; CHEM 006B or CHEM 020)
- (3) PSYC 168* Abnormal Psychology (PSYC 005)
- (3) STAT 001* Introduction to Statistics (MATH 009 or three years of high school mathematics which includes two years of algebra and one year of geometry; completion of ELM requirement and the Intermediate Algebra Diagnostic Test)
- (2) NURS 014* Pharmacology (BIO 131 or equivalent [may be taken concurrently])

- (2) NURS 130* Pathophysiology (BIO 022 or equivalent, BIO 131 or equivalent)
- (3) MATH 030 Calculus I (MATH 029 or four years of high school mathematics which includes two years of algebra, one year of geometry, and one year of mathematical analysis; completion of ELM requirement and Pre-Calculus Diagnostic Test)
- (1-3) KINS 194F Assigned Field Experience in Allied Health

Note: Other elective courses can be used with the permission of an advisor.

*Prerequisite for CSUS MS in Physical Therapy

Adapted Physical Education Specialist Credential

The Adapted Physical Education Specialist Credential consists of a minimum of 21 units. It is intended that the courses in this specialty be taken in addition to or concurrent with the courses required for the Single Subject Teaching Credential in Physical Education.

A. Required Courses (21 units)

- (3) KINS 171 Adapted Physical Education: Basic Skill/Fitness Activities and Assessment (KINS 177)
- (3) KINS 176 Perceptual Motor Development
- (3) KINS 177 Adapted Physical Education: History and Philosophy
- (3) KINS 179 Adapted Physical Education: Program Planning (KINS 171, KINS 177)
- (3) KINS 194E Assigned Internship in Adapted Physical Education (Any two of the following: KINS 171, KINS 176, KINS 177 or KINS 179; permission of Adapted Credential Advisor)
- (3) RLS 125 Therapeutic Recreation and Persons with Physical Disabilities (RLS 106 or instructor permission; RLS 106 may be taken concurrently)
- (2) EDS 120A Management of Learning and Teaching (Corequisite: EDS 120B)
- (1) EDS 120B Management of Learning and Teaching Lab (Corequisite: EDS 120A)

B. Prerequisite courses for students who are not Physical Education Teaching Option Majors:

- (4) BIO 022 Introductory Human Anatomy (BIO 010, BIO 020, or instructor permission)
- (3) KINS 130 Physical Education for Children (KINS 138. Corequisites: KINS 135, KINS 149) **OR**
KINS 172 Movement Education
- (3) KINS 151 Kinesiology (BIO 022 or equivalent)
- (3) KINS 151D Applied Biomechanics (Corequisite: KINS 138)
- (3) KINS 158 Motor Learning (BIO 022 or equivalent)
- (2) HLSC 136 School Health Education (CPR training; may be taken concurrently)

MINOR REQUIREMENTS

The minor requires from 19 to 21 units depending upon the option selected.

Elementary Teaching Minor Option (20 units)

- (3) KINS 138 Teaching Strategies in Physical Education (Corequisite: KINS 151D)
- (3) KINS 172 Movement Education
- (3) KINS 176 Perceptual Motor Development **OR**
KINS 176A Lifespan Motor Development
- (3) KINS 158 Motor Learning (BIO 022 or equivalent) **OR**
KINS 150 Exercise and Sport Physiology
- (3) Select from the following:
KINS 137 Sociology of Sport
KINS 139 Leadership and Communication
KINS 160 Sport and Exercise Psychology

Select at least one course from each of the following areas to total at least 5 units.

Area 1

- (2) KINS 140 Analysis of Tumbling and Gymnastics
- (2) KINS 141 Analysis of Racquet Sports
- (1) KINS 143 Analysis of Track and Field
- (1) KINS 149 Analysis of Health-Related Fitness

Area 2

- (3) KINS 145A Analysis of Team Passing Games
- (1) KINS 145B Analysis of Softball and Flag Football
- (1) KINS 146 Analysis of Volleyball
- (1) KINS 148 Analysis of Nontraditional Games and Outdoor Activities

Area 3

- (2) KINS 142 Analysis of Rhythm and Dance
- (2) KINS 171 Adapted PE: Basic Skill/Fitness Activities and Assessment (KINS 177)
- (3) KINS 177 Adapted Physical Education: History and Philosophy
- (1-2) KINS 194A Assigned Field Experience in Kinesiology **OR**
KINS 195A Directed Field Experience in Kinesiology

Secondary Teaching Minor Option (21 units)

- (3) KINS 138 Teaching Strategies in Kinesiology
- (9) KINS 140-149 Analysis Series
- (3) KINS 150 Exercise and Sport Physiology
- (3) KINS 158 Motor Learning (BIO 022 or equivalent)
- (3) Select one of the following:
KINS 110 Women and Sport
KINS 137 Sociology of Sport
KINS 160 Sport and Exercise Psychology

Coaching Minor Option (19-20 units)

- (3) KINS 150 Exercise and Sport Physiology
- (3) KINS 156 Care of Athletic Injuries
- (3) Select one of the following:
KINS 110 Women and Sport
KINS 137 Sociology of Sport
KINS 160 Sport and Exercise Psychology
- (4) ATIC 160 Coaching Series
- (2-3) KINS 140-149 Analysis Series
- (4) Select 4 units from the following:
KINS 156A Emergency Response (Instructor permission)
KINS 161 Organization and Administration of Physical Education and Intramurals
KINS 140 Analysis Series
KINS 194D Assigned Field Experience in Coaching

Personal Trainer/Strength and Conditioning Certificate

The program includes a minimum of 28 units of specified coursework:

- (3) KINS 120 Scientific Bases of Physical Conditioning
- (3) KINS 132 Planning, Designing and Managing a Fitness Center
- (3) KINS 139 Leadership and Communication
- (2) KINS 144 Analysis of Weight Training
- (3) KINS 151 Kinesiology (BIO 022)
- (3) KINS 152 Physiology of Exercise (BIO 131 or equivalent)
- (3) KINS 153 Cardiovascular Testing and Exercise Prescription (KINS 152 or instructor permission)
- (3) KINS 156 Care of Athletic Injuries
- (2) KINS 194A Assigned Field Experience in Kinesiology **OR**
KINS 195A Directed Field Experience in Kinesiology
- (3) FACS 113 Nutrition and Metabolism (BIO 010 or BIO 020; CHEM 001A or CHEM 006A. Passing score on WPE)

GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Kinesiology is designed to expand the students' knowledge and to augment their qualifications for leadership in their chosen profession.

The objectives of the program are to increase the students' breadth and depth of knowledge relative to the discipline of Kinesiology; to provide the opportunity for students to engage in scholarly activity that includes creative and analytical thinking, interpreting, evaluating and reporting published research, designing and conducting research; and to provide a focus of study that will enhance career commitment and allow for experiences that will lead to continued self-development and growth.

Admission Requirements

For students **with an undergraduate major** in Kinesiology, admission to the MS program as a classified graduate student requires:

- an overall GPA of 2.8 or 3.0 in the last 60 semester units; and
- EDS 140 or equivalent.

Students who have deficiencies in admission requirements which can be removed by specific additional preparation may be admitted to unclassified or conditionally classified graduate status for the purpose of removing deficiencies. Coursework taken to qualify for classified graduate status is in addition to and not counted toward the master's program. While completing admission deficiencies, students may, if they possess the necessary prerequisites, enroll also in degree coursework, but no more than 6 units as an unclassified student or 12 units as a conditionally classified student can be applied toward the MS degree. Students must remove all admission deficiencies before being considered for classified status.

Students with deficiencies in admission requirements are requested to submit additional documentation in support of their application. These materials may include:

- GRE or MAT scores.
- A letter stating reasons for pursuing graduate study in Kinesiology.
- A copy of recent research paper and/or a creative project.
- Letters of recommendation that speak specifically to academic ability.

Students applying for admission to the Kinesiology graduate program who *do not have a major in Kinesiology*, are required to take a minimum of 20 specified units in Kinesiology. These students should see the graduate coordinator or a graduate advisor for details.

Admission Procedures

Applications are accepted as long as room for new students exists. However, students are strongly urged to apply by March 1 for the following Fall or October 1 for the following Spring in order to allow time for admission before Computer Access Student Phone Entry Registration (CASPER). All prospective graduate students, including CSUS graduates, must file the following with the Graduate Center:

- an application for admission and a supplemental application for graduate admission (Forms A and B in the CSU application booklet); and
- two sets of official transcripts from all colleges and universities attended, other than CSUS.

Approximately six weeks after receipt of all items listed above, a decision regarding admission will be mailed to the applicant. Upon admission, the student will select a graduate advisor.

Advancement to Candidacy

Each student must file an application for Advancement to Candidacy. This must be filed no later than the semester prior to enrolling in KINS 211. If a student chooses to enroll in KINS 299, the application is filed at that time. Advancement to Candidacy forms are available in the Graduate Center. Please see the department's graduate coordinator for more information about this process.

Degree Requirements

The Master of Science degree in Kinesiology consists of a minimum of thirty (30) units. A 14-unit core of courses is required of all students; 10 units of required courses and 4 units that are earned through the completion of a thesis or project. The thesis or project is required of all candidates for the Master of Science in Kinesiology. The courses in the core are designed to focus on an advanced study of the knowledge which is of common interest and concern to all graduate students pursuing a degree in Kinesiology. Within the remaining 16 units, the student is focused in an area of special interest by selecting an option: Exercise Physiology and Sport Performance. Each option includes a set of required courses and a specified number of elective units.

Six semester units of graduate work taken at other accredited institutions may be approved by the Graduate Coordinator or the student's graduate advisor. Prerequisite units, units taken for undergraduate majors/minors and units taken to qualify for fully classified graduate status, will not be counted for graduate credit. Only rarely are undergraduate Kinesiology courses approved for graduate credit. A maximum of 6 elective units may be taken in upper division undergraduate courses with advisor approval. A maximum of 4 units of graduate Practicum or Directed Individual Study may be taken for degree credit with advisor approval.

A. Required Courses (10 units)

- | | | |
|-----|----------|--|
| (3) | KINS 210 | Research Methods in Kinesiology |
| (1) | KINS 211 | Research Seminar |
| (3) | KINS 260 | Psychology of Sport and Exercise |
| (3) | KINS 270 | Instructional Strategies for Physical Activity and Sport |

B. Option Requirements (16 units)

Select one of the following options:

1. Exercise Physiology Option

- | | | |
|-----|----------|--|
| (3) | KINS 250 | Advanced Exercise Physiology Lab (KINS 152 or instructor permission) |
| (3) | KINS 254 | Advanced Biomechanics (KINS 151, KINS 210; or instructor permission) |
| (3) | KINS 259 | Research in Exercise Physiology (KINS 152, KINS 210, or instructor permission) |
| (7) | | Electives selected in consultation with an advisor. |

2. Sport Performance Option

- | | | |
|------|----------|---|
| (6) | | Select two of the following: |
| | KINS 203 | Specificity of Conditioning |
| | KINS 236 | Sport and Society |
| | KINS 262 | Psychological Aspects of Peak Performance |
| (10) | | Electives selected in consultation with an advisor. |

OR

Strength/Conditioning Concentration

- | | | |
|-----|----------|---|
| (3) | KINS 203 | Specificity of Conditioning |
| (3) | | Select one of the following: |
| | KINS 236 | Sport and Society |
| | KINS 258 | Research in Motor Learning (KINS 158, KINS 210, or instructor permission) |
| | KINS 262 | Psychological Aspects of Peak Performance |
| (4) | KINS 295 | Practicum (Approval of graduate faculty advisor and graduate coordinator) |
| (6) | | Electives selected in consultation with an advisor. Can include no more than 3 units of KINS 299. |

Note: Student teaching, extension courses, undergraduate fieldwork, and 300-numbered methods or workshop courses may not be applied to the MS program requirements.

C. Culminating Requirement (4 units)

- | | | |
|-----|----------|--|
| (4) | KINS 500 | Culminating Experience (Completion of KINS 211 or concurrent enrollment) |
|-----|----------|--|

Note: The first time the student registers for KINS 500, he/she must also register for KINS 211. During this semester, the student develops his/her proposal with assistance from others in the seminar, the seminar professor and the student's committee. When the proposal is completed, formal written and oral presentations are made to the seminar with the student's committee in attendance. If the student does not complete the proposal and have it approved, he/she must enroll and attend KINS 211 another semester.

LOWER DIVISION COURSES

KINS 012A. Intermediate Swimming. Development of physical skills involving strokes, turns, safety and survival techniques. 1 unit.

KINS 012B. Intermediate Sailing. Continuation of KINS 025, using our fleet of C-15s, Laser and Hobie Turbo 14s. Covers rigging, boating safety, sailing, theory and racing tactics. 1 unit.

KINS 012C. Advanced Scuba Diving. Designed for those divers who wish to increase their understanding and enjoyment of safe diving. Emphasis is placed on student participation and practical application of knowledge in open water after a classroom introduction to each selected subject. Provides an opportunity for the diver to gain a variety of safe experiences under controlled conditions. Leads to NAUI certification. **Prerequisite:** KINS 027 or certification from National Scuba Diving Organization, pass medical examination. 2 units.

KINS 013A. Intermediate Self-Defense for Women. Prepares women psychologically, sociologically and physically to deal with an assailant carrying a deadly weapon. An in-depth study of firearms, knives, etc., and fears surrounding these weapons. Physical tactics taught enable the student to disarm the assailant. 1 unit.

KINS 013B. Intermediate Tae Kwon Do. An extension of the beginning Tae Kwon Do class. Students will be taught the importance of traditions in Tae Kwon Do training. Emphasis will be on intermediate skills of performance, including transition to dynamic movement through patterns and forms. An extended knowledge of the philosophical aspects of Tae Kwon Do, including the influence of the Asian culture, will be explored. The class will include mental and physical exercises geared towards self defense. **Prerequisite:** KINS 034 or equivalent, or instructor permission. 1 unit.

KINS 013C. Intermediate Tai Chi. Explores the ancient traditions of Tai Chi in a much greater depth. Asks the student to physically experience the discipline and structure of Tai Chi to enhance his/her understanding of the next level of training. **Prerequisite:** KINS 031 or prior experience in Tai Chi. 1 unit.

KINS 014B. Men's Intermediate Ballroom Dance. Development of intermediate skills in foxtrot, waltz, swing, cha cha cha, and basic skills in tango, rumba, samba, and dance routines. 1 unit.

KINS 014C. Women's Intermediate Ballroom Dance. Development of intermediate skills in foxtrot, waltz, swing, cha cha cha, and basic skills in tango, rumba, samba, and dance routines. 1 unit.

KINS 016C. Intermediate Badminton. Development of movement skills, strokes, tactics in singles and doubles at a more advanced level. Emphasis on "cut" or deceptive strokes, rotation or diagonal system of doubles play, increased ability to move on the court, application of laws to move difficult playing situations. Singles, doubles and mixed doubles play in tournaments. 1 unit.

KINS 016D. Intermediate Golf. Continued development of the fundamental mechanics involved in the golf swing with emphasis on individual swing analysis and correction; introduction to play on a nine-hole golf course using U.S.G.A. rules and accepted rules of etiquette. 1 unit.

KINS 016E. Intermediate Tennis. Development and refinement of skills at the intermediate level in all strokes. Development and refinement of playing techniques and strategies. Learning how to enjoy competitive situations and to relate well to others in competition. Adjustment to stressful competitive conditions and improvement of personal responses under stress. 1 unit.

KINS 016F. Intermediate Weight Training. Weight training as a lifetime fitness activity; emphasis on going beyond the beginning level through development of an individualized program designed to meet the needs of each individual. 1 unit.

KINS 016G. Intermediate Racquetball. Development of proficiency at the intermediate level. Includes service and return, backwall play, offensive and defensive shots with emphasis on techniques, strategy and tactics of competition. 1 unit.

KINS 017A. Intermediate Basketball. The advancement of basketball skills and strategy. Emphasis is given to individual and team concepts as they relate to performance competition and officiating basketball. 1 unit.

KINS 017B. Intermediate Volleyball. Refine and improve proficiency in fundamental skills, strategies, multiple offenses and defenses, transitions, interchanges and international rules. Emphasis on teamwork and communication in competition situations which enhances continued involvement in volleyball as a physical activity. 1 unit.

KINS 020. Basic Windsurfing. Introduces the student to the basic fundamentals of windsurfing. Covers rigging, terminology, balance, stance, sail adjustment, safety, rescue skills, and tricks. 1 unit.

KINS 021. Beginning Swimming. Development of physical and mental adjustment to the water. Basic instruction in front crawl, back crawl, elementary backstroke, breast and side strokes and survival is stressed. 1 unit.

KINS 021A. Bicycling. Cycling as a lifetime sport; physiological benefits derived from bicycle riding; individual functional evaluation and conditioning, cycle touring. Lecture one hour; activity two hours. 2 units.

KINS 022A. Life Guard Training. Leads to certification in American Red Cross Emergency Water Safety. **Prerequisite:** Proficiency in crawl, breast, side and elementary backstroke. 1 unit.

KINS 023. Personal Watercraft Safety. Basic course in personal watercraft safety, operation, and knowledge of California boating laws as it applies to personal watercraft. Additional charge for off-campus services. 1 unit.

KINS 024. Water Skiing. A basic course in water skiing, boat and boating safety and in the fundamental skills in water skiing. Additional charge for off-campus services. **Prerequisite:** 50 yards swimming ability. 1 unit.

KINS 025. Beginning Sailing. Instruction in the fundamentals of sailing including safety and a discussion of terminology and technology of sailing. Additional charge for off-campus services. **Prerequisite:** 50 yards swimming ability. 1 unit.

KINS 027. Basic Scuba Diving. Basic instruction using self-contained underwater breathing apparatus. Course to include lecture, pool work, and open water diving in lake and ocean. **Prerequisite:** Pass swimming ability test, medical exam. 3 units.

KINS 029. Basic Olympic Rowing. Teaches the novice rower oar control, basic commands, and correct style. Students will begin rowing on a modern eight-oared racing shell and be introduced to the one person rowing single. 1 unit.

KINS 031. Beginning Judo. Instruction in beginning judo tactics including throws and falls, conditioning, and protective devices for self-defense. 1 unit.

KINS 032. Uechi-Ryu Karate. Examines the historical, philosophical, and physical aspects of Uechi-Ryu Karate. Students will be asked to learn the basic techniques and skills used in this Okinawan system as well as to develop and improve in body strength, flexibility and coordination. 1 unit.

KINS 033. Beginning Self-Defense for Women. Prepares women to deal psychologically, sociologically and physically with rape and violent assault. The physical tactics taught are based on the use of hands and feet as weapons. They are simple yet an effective use of one's strength and mental attitude. 1 unit.

KINS 034. Beginning Tae Kwon Do. Primary emphasis on throwing, blocking, punching and kicking. The philosophy of Truism and Confucianism is explored. 1 unit.

KINS 035. Self Defense and Conditioning. Multifaceted conditioning course that utilizes self defense techniques to develop self discipline, confidence and respect for physical capabilities and limitations of others. 1 unit.

KINS 036. Tai Chi. Examines the historical, philosophical, psychological and physiological aspects of Tai Chi. Students will be provided the opportunity to experience a wide range of movement patterns that focus on the integration of mind and body. The form and structure of technique as well as breathing exercises will be included. 1 unit.

KINS 037. Chinese Martial Arts. Examines the historical, philosophical and physical aspects of Chinese Martial Art systems, wushu. Students will be asked to learn the basic techniques and skills used in a variety of wushu systems, including both northern and southern styles. Students will also be exposed to a variety of ceremonial weapons that are part of Chinese martial art training. Will help students develop and improve in body strength, flexibility, and coordination. 1 unit.

KINS 038. Okinawan Martial Arts. An examination of the historical and physical aspects of Shorin-ryu and Isshin-ryu karate. Students will learn the basic skills used in these Okinawan systems as well as develop and improve in body, strength, flexibility, and coordination. 1 unit.

KINS 040. Beginning Country Western Dance. Development of proficiency in Country Western Dance to include history, vocabulary, etiquette, and basic steps for Country 2-Step, Waltz, West Coast Swing, plus choreographed couple and line dance. 1 unit.

KINS 041A. Men's Beginning International Folk Dance. Development of skill in folk dances from countries of the world, dance vocabulary, interest in these dances for use throughout life. 1 unit.

KINS 041B. Women's Beginning International Folk Dance. Development of skill in folk dances from countries of the world, dance vocabulary, interest in these dances for use throughout life. 1 unit.

KINS 043A. Men's Beginning Ballroom Dance. Development of proficiency in ballroom dance, including history, vocabulary, ballroom dance etiquette and basic steps for foxtrot, waltz, swing and cha cha cha. 1 unit.

KINS 043B. Women's Beginning Ballroom Dance. Development of proficiency in ballroom dance, including history, vocabulary, ballroom dance etiquette and basic steps for foxtrot, waltz, swing and cha cha cha. 1 unit.

KINS 052. Beginning Trampoline and Tumbling. Involves beginning level skills ranging from forward rolls to handsprings in tumbling and feet bouncing to full twisting movements (without flips) on trampoline. In addition, students learn appropriate flexibility and strength exercises. 1 unit.

KINS 053. Beginning Gymnastics. Open to men and women who would like to learn skills or routines on one or more selected events (four women's/six men's). Student will learn appropriate flexibility and strength exercises as well as principles of fitness involving physiological, psychological, and social variables. No experience required. 1 unit.

KINS 062. Exercise for Fitness. Designed to encourage self-improvement through posture evaluation, biomechanic analysis of exercises performed and through participation in varied exercise forms. Students will develop a personalized repertoire of strength, suppleness and stamina exercises calculated to improve possible deficiencies in posture or movement to optimize enjoyment of living. 1 unit.

KINS 063. Beginning Badminton. Development of fundamentals in badminton including beginning skills, offensive and defensive tactics and strategy; singles, doubles and mixed doubles tournament play. 1 unit.

KINS 064. Beginning Golf. Development of sufficient basic proficiency in golf to recognize and enjoy it as a lifetime activity; including U.S.G.A. rules, etiquette and the fundamental mechanics involved in the use of irons and woods. 1 unit.

KINS 067. Beginning Tennis. Development toward proficiency in tennis, including basic court skills, knowledge, and elementary strategies. Development of enjoyable and appropriate cooperative and competitive modes of behavior, including etiquette and self-awareness. Attention is given to healthful approaches to vigorous lifetime physical activity. 1 unit.

KINS 068. Beginning Weight Training. Weight training as a lifetime fitness activity; emphasis on total body development through the use of different weight training systems. 1 unit.

KINS 068A. Beginning Olympic Weight Lifting. Introduces the lifter to the sport of weight lifting which consists of the two lifts (two hands snatch and the two hands clean and jerk) used in Olympic competition. It includes the complete breakdown of the two lifts, the assistive lifts necessary to learn the parts of the two lifts, and the proper training sequence. The students will also be introduced to training cycles, proper diet, and the use of assistive equipment. **Prerequisite:** KINS 016F or equivalent. 1 unit.

KINS 069. Beginning Racquetball. Fundamental theory and practice of the game of racquetball including service, receiving the service, back wall play, basic shots, variations, court positioning and general tactics; history rules, and safety precautions. 1 unit.

KINS 071A. Beginning Basketball. Development of fundamental skills and tactics of the game, knowledge of basic strategy and rules. Emphasis given to individual and team concepts as they relate to performance and competition. 1 unit.

KINS 072. Beginning Volleyball. Develop basic skills, basic offensive and defensive systems of team play, basic strategies and rules. Emphasis on team work and developing supportive attitudes and behavior which encourages continued involvement in volleyball as a physical activity. 1 unit.

KINS 073. Slow Pitch Softball. Develop fundamental skills, knowledge and techniques necessary to enjoy playing the game of softball as a leisure time activity. Includes the factors that lead to team cohesiveness, a sense of self-worth and psychological preparedness for competition. Emphasizes the inter-relationship of social, psychological and physiological skills required to achieve success in individual and/or team performances. 1 unit.

KINS 074. Beginning Soccer. Development of basic skills of ball handling, passing, dribbling, trapping, tackling, individual and team tactics and strategies; rules interpretation and officiating; promotion of bio-psychosocial well being. 1 unit.

KINS 080. Alpine Skiing and Snowboarding. Designed to develop proficiency at all skill levels of alpine skiing, beginner through expert, while promoting appreciation of the sport as socio cultural phenomena and lifetime pursuits. Sessions will take place at a scheduled Sierra ski area as well as on campus. Additional fee. 1 unit.

KINS 090. Jogging. Jogging will expose the student to the fundamentals of jogging/running, its potential physiological and sociological benefits as a lifetime activity, fitness testing and individualized conditioning programs. 1 unit.

KINS 091. Creative Aerobic Fitness I. Provides student with a wide range of flexibility, strength, muscular endurance and creative cardiovascular endurance (aerobic) exercises that promote physical fitness, positive changes in body composition and stress reduction when performed regularly. 1 unit.

KINS 093. Aqua Aerobics. Using the unique buoyancy and resistance properties of water, the course includes aquatic exercises for flexibility, strength, and cardiovascular endurance to promote general fitness, body conditioning, and stress reduction. As the course will take place in shallow water, swimming proficiency is not required. 1 unit.

KINS 094. Adapted Physical Fitness. A weight training and fitness class designed for students with disabilities who wish to increase their fitness levels. Includes programs of physical fitness exercises to develop strength, flexibility, and cardiorespiratory endurance. 1 unit.

UPPER DIVISION COURSES

KINS 101. Exercise for Healthy Living. Expose students to a broad range of information related to understanding personal fitness and health. Offers a well-rounded examination of lifestyle components elemental to lifelong healthful living. Explores a variety of personal choice options for developing and maintaining lifetime wellness from physiological, psychological, and sociological perspectives. Encourages students to participate in a wide variety of physical activities. Provides a comprehensive understanding of elements for successful participation in physical activities. **Prerequisite:** One unit skill or fitness class; may be taken concurrently. 2 units.

KINS 106A. Advanced Golf. More technical level of swing analysis and instruction; enhancement of golf skills under actual playing conditions with emphasis on strategical shot placement, club selection, shot selection, etiquette and U.S.G.A. rules. 1 unit.

KINS 106B. Advanced Tennis. Develop a proficiency at the advanced level in all strokes, including forehand, backhand, serve and service return, volley, half-volley, overhead, lob, slice spin and drop shots. Covers evaluation of rules and different scoring systems, singles, and doubles play with an emphasis on competitive strategy and techniques. 1 unit.

KINS 106C. Advanced Weight Training. Advanced instruction in weight lifting including Olympic weight lifting, power lifting, body building, lifting for athletic competition and lifting for physical fitness. 1 unit.

KINS 107B. Advanced Volleyball. Instruction in advanced skills, strategies, and techniques. Emphasis on various offensive and defensive patterns of play. 1 unit.

KINS 110. Women and Sport. The role of women in sport; an inquiry into traditional and contemporary attitudes and practices regarding the woman's role in the sporting world. 3 units.

KINS 118A. Martial Arts: Karate. Explores the ancient tradition of the Asian martial arts in conjunction with actual participation in a selected martial arts course. Asks the student to critically examine the cultural contributions of specific Asian communities such as Japan, China, and Korea, to the Martial Arts as practiced in the United States. 3 units.

KINS 118B. Martial Arts: Tae Kwon Do. 3 units.

KINS 118C. Martial Arts: Tai Chi. 3 units.

KINS 120. Scientific Bases of Physical Conditioning. Examines physical fitness through the following activities: swimming, cross country running, running games, and weight training. Emphasis is placed on the lifelong carry-over value of these and related activities. Special attention is given to scientific understanding of physical fitness and the role of physical fitness in maintaining good health. 3 units.

KINS 120A. Health Maintenance Program for Adults. Offers a personalized program of nutrition and physical activity emphasizing weight control and the development and maintenance of the individual's cardiovascular system. Active participation will be supplemented by instruction in the physiological bases of physical activity. **Prerequisite:** Medical clearance prior to beginning of the course; thirty (30) years of age or older. 3 units.

KINS 121. Peak Performance Through Psychological Skills. An examination of, and practical experience in, techniques for maximizing sport and creative performance through the development of mental skills and strategies for stress control, imagery, goal setting and concentration. 3 units.

KINS 122B. Cardiopulmonary Resuscitation. Designed to meet American Red Cross or American Heart Association Certification in CPR. **Note:** May be repeated for credit. Graded Credit/No Credit. 1 unit.

KINS 123A. Weight Training for Lifelong Fitness. Designed to provide participants with a process oriented approach to lifelong fitness by developing exercise adherence that builds on knowledge and basic skills related to weight training. Individual assessment of body composition, as well as other measures, are determined to establish baseline data for improving exercise adherence. (Additional charge for assessment and computer analysis.) **Prerequisite:** Weight training course or instructor permission. 1 unit.

KINS 123B. Aerobics for Lifelong Fitness. Designed to provide participants with a process oriented approach to lifelong fitness by developing exercise adherence that builds on knowledge and basic skills related to aerobic fitness. Individual assessment of body composition, as well as other measures, are determined to establish baseline data for improving exercise adherence. (Additional charge for assessment and computer analysis.) **Prerequisite:** KINS 091 or instructor permission. 1 unit.

KINS 123C. Weight Training and Aerobics for Lifelong Fitness. Designed to provide participants with a process oriented approach to lifelong fitness by developing exercise adherence that builds on knowledge and basic skills related to weight training and aerobics. Individual assessment of body composition, as well as other measures, are determined to establish baseline data for improving exercise adherence. (Additional charge for assessment and computer analysis.) **Prerequisite:** KINS 091 and a weight training class or instructor permission. 1 unit.

KINS 130. Physical Education for Children. Introduction to developmentally appropriate physical education for children. Concepts and skills will be analyzed and utilized progressively as a means of developing, refining and applying the physical, social and cognitive abilities of young children. Emphasis is on maximum participation, success, challenge, cooperative learning, healthy competition, fitness for life and enhanced self-esteem. **Note:** Senior Physical Education Majors Only. **Prerequisite:** KINS 138. **Corequisite:** KINS 135, KINS 149. 3 units.

KINS 131. Curriculum and Methods of Teaching Secondary School Physical Education. Examination of multiple facets of curriculum planning and teaching physical education at secondary schools. Emphasis is on the teaching of motor skills, fitness, knowledge and attitudes as part of the comprehensive secondary school experience. The unique needs of adolescents will be addressed. **Prerequisite:** KINS 138. 3 units.

KINS 132. Planning, Designing and Managing a Fitness Center. Designed to provide students with the basic guidelines for starting and managing multiple health and fitness centers in the private setting; focus on initial start-up of a health and fitness center and operating procedures with emphasis on equipment selection and arrangement, employee training, program planning for safe and optimally beneficial health and fitness results. 3 units.

KINS 133. Integration of Concepts. A critical perspective of how theoretical concepts and integrated knowledge can be applied to the teaching of physical education. Emphasis is on a coherent understanding of the interrelationships that exist in the subdisciplines of physical education and other subject areas. This capstone experience for students in the Physical Education Teaching Option. Meets the advanced study requirement. 3 units.

KINS 134. Historical and Philosophical Foundations of Physical Education. An examination of historical events that have influenced the philosophy of physical education, past and present, including a study of selected leaders of physical education; the identification of societal forces in cultures which lead to philosophical beliefs and concepts relative to the structure of the discipline of physical education. 3 units.

KINS 135. Assessment Strategies in Physical Education. The selection, analysis, construction and administration of norm-referenced and criterion-referenced tests used for formative and summative evaluation in the physical education public school setting. Includes both traditional and alternative assessment strategies. Computers are used for data collection, development of assessment instruments, development of grading programs, and for descriptive statistical analysis. 3 units.

KINS 136. Sport and Aging. Considers the positive and negative aspects of vigorous exercise and/or sport activity throughout the aging process. Included will be inquiry into the opportunities for activity among adults over the age of thirty, through the active career years, and beyond. 3 units.

KINS 137. Sociology of Sport. Analysis of sport as a social institution and the interrelations between sport and societal subsystems. Consideration of the attitudes, values, and behaviors associated with sport. Analysis of contemporary problems associated with sport: race relations, the traditional and emergent role of women, leisure behavior, aggression and violence, and political and economic concerns. Analysis of a sociological problem within the context of sport. 3 units.

KINS 138. Teaching Strategies in Physical Education. An introduction to teaching in K-12 schools for physical education majors. Topics include: professionalism, philosophy, the CA framework, lesson/unit planning, class management, organiza-

tion techniques, communication skills, teaching styles and effective teaching skills. (Students will be required to complete four observations off campus and two peer-teaching assignments on campus.) Serves as a prerequisite or corequisite for all skill analysis classes in the major. **Note:** Physical Education Majors, Minors and Liberal Studies KINS Concentration. 3 units.

KINS 139. Leadership and Communication. Social actions and behavioral patterns as influenced by the communication process; experiential approaches to techniques of interpersonal and small group relationships and leadership; the constantly evolving communication media as instruments of behavioral change. 3 units.

KINS 140. Analysis of Tumbling and Gymnastics. Provides experience in both performing and teaching fundamental gymnastics skills which are relevant at the elementary or secondary levels. Attention is given to the effective analysis of skills, appropriate progressions, spotting techniques, safety and methods of organization. **Prerequisite:** KINS 138. 2 units.

KINS 141. Analysis of Racquet Sports. Basic techniques, offensive and defensive strategies, and rules used in a variety of racket sports. Emphasis on teaching methodology, skill analysis, lead-up games, organization of groups, and the construction of unit and lesson plans. **Prerequisite:** KINS 138 and instructor permission. 2 units.

KINS 142. Analysis of Rhythm and Dance. An introduction to basic rhythm and dance. Activities may include, but are not limited to: basic locomotor skill development; basic rhythm activities; and contemporary, line, square round, contra, folk country & western and ballroom dance. Historical and multi-cultural concepts related to dance are emphasized. Designed to prepare students to teach rhythm and dance in K-12 settings. **Note:** Physical Education Majors, Minors and Liberal Studies KINS Concentration. **Prerequisite:** KINS 138. 2 units.

KINS 143. Analysis of Track and Field. An introduction to fundamental skill techniques, strategies, and rules required for teaching track and field. Instruction will focus on teaching methodology and different styles of teaching designed specifically for individuals who aspire to teach and coach track and field in K-12 settings. **Prerequisite:** KINS 138. 1 unit.

KINS 144. Analysis of Weight Training. Prepares students in the analysis of skills and concepts of weight training. Emphasis is on kinesiology/biomechanics principles, human anatomy, and physiological adaptations to training. Addresses class organization as applied to school populations, and program design as applied to athletics and equipment selection related to modes or resistance. 2 units.

KINS 145A. Analysis of Team Passing Games. An introduction to knowledge, skills, practice and strategies for teaching and participation in team passing games. Instruction will focus on performance, analysis, methods of teaching, and evaluation of skills and strategies utilized in team passing games: Basketball, Team Handball, Ultimate Frisbee, Lacrosse, Hockey, and Soccer. Designed to prepare students to teach in K-12 settings. **Prerequisite:** KINS 138 and instructor permission. 3 units.

KINS 145B. Analysis of Softball and Flag Football. An introduction to basic skills and teaching strategies that are applicable to the teaching of softball and flag football. Instruction will focus on the analysis skills, correction of errors and application of principles of feedback, learning and performance. Includes game stages, skill techniques, skill analysis, lead-up games, modified games, organization of groups and the construction unit, block, and lesson plans. Activities are designed to prepare students to teach in K-12 settings. **Prerequisite:** KINS 138 and instructor permission. 1 unit.

KINS 146. Analysis of Volleyball. Introduces fundamental skills in volleyball. Includes progressions, skill analysis and motivation techniques, evaluation methods, and other knowledge associated with the game. **Prerequisite:** KINS 138. 1 unit.

KINS 147. Analysis of Self Defense. Basic defensive and offensive movements used in self defense. Emphasis is on analysis of skills and teaching strategies that can be used to present skills safely and effectively in K-12 settings. **Prerequisite:** KINS 138 and instructor permission. 1 unit.

KINS 148. Analysis of Nontraditional Games and Outdoor Activities. Introduces a variety of nontraditional games and outdoor activities. A clinical experience is provided for middle school students in the community. **Prerequisite:** KINS 138. 1 unit.

KINS 149. Analysis of Health-Related Fitness. Presents a variety of exercises and conditioning programs that encompass the components of health-related physical fitness. Emphasis is on application of exercise physiology principles, physical fitness testing, computer analysis of fitness test results, and field experiences. **Prerequisite:** KINS 138. 1 unit.

KINS 150. Exercise and Sport Physiology. A course in sports physiology with special emphasis on studying the various systems in the body that are involved in work, exercise and sport. Training programs to improve these systems and their responses will be discussed in a wide variety of settings including exercise for health, fitness, recreation, and sports competition. Lecture two hours; laboratory three hours. 3 units.

KINS 151. Kinesiology. Anatomical concepts and physical laws as applied to human movement emphasizing the effects of individual and environmental variables. Includes analysis of normal and pathological gait. Lecture two hours; laboratory three hours. **Prerequisite:** BIO 022 or equivalent. 3 units.

KINS 151A. Biomechanics. An introduction to fundamental mechanical concepts as they apply to human movement. A broad range of human movement will be explored including activities from sport, industrial settings, normal and pathological locomotory skills, and movements involved in manipulating the environment in which we live. Laws of physics, mechanical principles and mathematical concepts will be integrated in studying man as a biological entity. Lecture two hours; laboratory three hours. **Prerequisite:** KINS 151. 3 units.

KINS 151C. Dance Kinesiology. The human musculoskeletal and neurological systems, energy production, and biomechanical interrelationships of human motion applied to dance. Emphasis on the nervous, muscular and tendinous structures and the mechanical function of levers and force application and injury prevention for the dancer. **Prerequisite:** BIO 022 or equivalent. 3 units.

KINS 151D. Applied Biomechanics. Fundamentals of human movement patterns with an emphasis on movement principles, movement sequences, applied biomechanics, developmental motor stages and basic movement analysis. **Corequisite:** KINS 138. 3 units.

KINS 152. Physiology of Exercise. The study of circulatory, respiratory and metabolic response to exercise in humans under various physiological and ambient conditions. Lecture two hours; laboratory three hours. **Prerequisite:** BIO 131 or equivalent. 3 units.

KINS 152A. Fundamentals of Exercise Programs. A study of current training programs used in different types of activity. Emphasis will be placed on specific training techniques, nutritional needs, methods of testing/evaluating, and special considerations needed for various populations. **Prerequisite:** KINS 152. 3 units.

KINS 152B. Exercise Physiology of Women. Examines the general physiology of women, how physical activity affects women's physiological functions, and how physiological functions affect women in sport and exercise performance. A comprehensive review of scientific literature is included. 2 units.

KINS 152C. Prolonged Exercise. Extensive review of the energy metabolism, cardiovascular and pulmonary function, endocrine response, nutritional need, training effect, and biochemical response to prolonged exercise of 1-6 hours in duration. **Prerequisite:** An introductory college biology or zoology course. 2 units.

KINS 152D. Blood Lactate and Exercise. Reviews the basic aspects of lactate formation, release, and uptake by skeletal muscle and blood during exercise and training. Presents recent clinical and research findings related to physical performance. **Prerequisite:** KINS 152. 2 units.

KINS 153. Cardiovascular Testing and Exercise Prescription. Designed to train exercise leaders, exercise test technologists, and exercise program directors. Focus is upon development of basic skills, both administrative and technical, needed to develop a program of graded exercise testing and exercise prescription for asymptomatic and symptomatic populations. Lecture two hours; laboratory three hours. **Prerequisite:** KINS 152 or instructor permission. 3 units.

KINS 153C. Exercise Mini-Series: Electrocardiography. An introduction to electrocardiography, reviews the basic concepts and its application during rest and graded exercise testing. 2 units.

KINS 154A. Principles and Techniques in a Clinical Setting. An introduction to professional ethics and attire, the allied health care system, patient transfers, wheelchair and ambulation aids, medical terminology and record keeping. Fundamental principles and concepts underlying the therapeutic application of modalities, including methods of administering heat, cold, electricity, sound, light and water are covered. 3 units.

KINS 154B. Management and Health Care Administration in Athletic Training. Organization, management and health care administration of athletic training programs. Includes communication skills, budget, facility design and management, legal aspects, drug testing, education, computer use, insurance and record keeping, personnel development (job search, CEUs, licensure), professional and governing organizations, athletic training reporting systems, emergency action plans, blood borne pathogen procedures, preparticipation exam management, health care issues and fundraising. 3 units.

KINS 154C. Therapeutic Modalities Laboratory. Techniques and clinical skills in the treatment of injuries using therapeutic modalities. Hands-on experience in the clinical application of contemporary therapeutic modalities (electrotherapeutic modalities, hydrotherapeutic modalities, cryotherapy, radiant energy, paraffin, intermittent compression units, traction units, massage) including patient preparation, set-up, dosage determination and operational procedures. Lab two hours. **Prerequisite:** BIO 022, KINS 154, KINS 156, prior instructor permission. 1 unit.

KINS 155A. Clinical Evaluation of the Upper Extremity. Analysis and performance of evaluation procedures of the upper extremity, head and spine. Includes the development of skills in a patient interviewing, palpation methods, manual muscle testing, neurological and orthopedic assessments and special tests. **Prerequisite:** BIO 022, KINS 154A, KINS 156. 2 units.

KINS 155B. Clinical Evaluation of the Lower Extremity. Analysis and performance of evaluation procedures of the lower extremity, trunk and low back. Includes the development of skills in patient interviewing, palpation methods, manual muscle testing, neurological and orthopedic assessments and special tests. **Prerequisite:** BIO 022, KINS 154A, KINS 156. 2 units.

KINS 156. Care of Athletic Injuries. Application and methods of caring for and preventing athletic injuries through strapping, padding, conditioning, etc.; practical application of first aid and a basic introduction to treatment and rehabilitation of common athletic injuries. 3 units.

KINS 156A. Emergency Response. Underlying principles and applied techniques of first aid. Meets the requirements for the Emergency Response and CPR for the Professional Rescuer certificates of the American Red Cross. Lecture one hour, laboratory two hours. **Prerequisite:** Instructor permission. 2 units.

KINS 157. Therapeutic Exercise. Biomechanical principles in the prescription of musculoskeletal rehabilitation exercises. Topics include passive, active and resistive range of motion, manual muscle testing, and exercises for strength, stamina and suppleness for every part of the body. **Prerequisite:** KINS 151, KINS 155A or KINS 155B, BIO 022; or equivalent. 3 units.

KINS 158. Motor Learning. A study of the motor and cognitive characteristics of individuals involved in learning and controlling motion skills and the conditions that can influence that learning and control. Lecture two hours; laboratory three hours. **Prerequisite:** BIO 022 or equivalent. 3 units.

KINS 160. Sport and Exercise Psychology. The application of research findings as they apply to psychological performance factors in sport, physical education and exercise settings, such as motivation/adherence, stress management, personality and psychological skills training. 3 units.

KINS 161. Organization and Administration of Physical Education and Intramurals. Presents information on the efficient and effective organization and administration of instruction and intramural programs in physical education. Topics include legal liability, budget and facilities. 2 units.

KINS 162. Officiating Fall Sports. Exposes students to rules, mechanics and officiating procedures in several types of sports found in interscholastic, intercollegiate, intramural programs such as football, basketball, soccer, volleyball and wrestling; practical experiences in officiating in wide variety of sports provided. 2 units.

KINS 167. The African American Sport Experience. An examination of the experiences of the African American athlete in sport and society, from the period of enslavement to the contemporary era. Topics include gender experiences, intercollegiate experiences, professional sport, and the Olympic games, as well as the interconnections between African American communities and the role of sport. The experiences of African Americans will be compared to those of other ethnic and cultural groups. 3 units.

KINS 171. Adapted Physical Education: Basic Skill/Fitness Activities and Assessment. Development of competencies for planning, developing, and evaluating effective skill and fitness activities for students with disabilities. Emphasis will be placed on basic skill development, fitness and traditional and alternative assessment strategies and postures assessment and programming for students with disabilities. Information regarding the application of specific standardized assessment instruments for placement decisions will be examined. Students will be required to participate in 15 hours of service learning. Class meets for 2 hours lecture and 2 hours activity. **Prerequisite:** KINS 177. 3 units.

KINS 172. Movement Education. An examination of activities and theoretical concepts that relate to the physical, social, emotional and intellectual development of the individual. Content includes: health-related physical fitness, movement concepts, stability, locomotor and manipulative skills, rhythms and dance, gymnastics, games and sport activities. 3 units.

KINS 176. Perceptual Motor Development. Study of the genetic, prenatal, perinatal and postnatal factors affecting the sequential perceptual motor development of children. Inquiry is made into reflexes, sensory motor testing and stimulation, perceptual motor testing and remedial activities in motor development. 3 units.

KINS 176A. Lifespan Motor Development. Study of the processes and mechanisms underlying motor development over a life span, biological and environmental factors affecting motor development; application of motor development knowledge to physical activity programs. 3 units.

KINS 177. Adapted Physical Education: History and Philosophy. Historical and philosophical bases for adapted physical education, including the development and management of programs with emphasis on the psychomotor, affective and cognitive domains. The impact of federal and state legislation, legal liability and special health and safety problems will be studied in relationship to the role of the adapted physical education teacher, the interdisciplinary team, the parent and the pupil. 3 units.

KINS 178. Methods of Teaching Elementary Physical Education. Designed to prepare physical education single-subject credential candidates in Phase I of the Professional Preparation Program in Education for successful student teaching experiences at the elementary school level. These experiences include: learning how to establish a positive, productive cooperative and non-threatening learning environment; planning and delivering developmentally appropriate physical education units and lessons to children; and choosing a variety of teaching methodologies and assessment strategies to accommodate different learning styles. 2 units.

KINS 179. Adapted Physical Education: Program Planning. Study of the variables in physical education curriculum and program planning - assessment, goals and objectives, development of program content, and evaluation - as related to individuals with disabilities. **Prerequisite:** KINS 171 and KINS 177. 3 units.

KINS 194A. Assigned Field Experience in Kinesiology. Assigned experience in the conduct of physical education. Students keep records of daily experiences and prepare periodic progress reports. Students receive one unit of credit for three hours per week for one semester of field experience. **Note:** Registration requires prior approval of the department coordinator. May be repeated for a total of five units. Graded Credit/No Credit. 1-2 units.

KINS 194B. Assigned Internship in Exercise Science. Assigned internship other than in the Human Performance Lab. The student will assist in laboratory experiments and other special procedures; will learn the operation of equipment and sequentially will be expected to administer tests and interpret the results. Interns will be expected to attend monthly conferences. May be repeated for a total of 3 units. **Prerequisite:** KINS 151 and/or KINS 152; or instructor permission. Graded Credit/No Credit. 1-3 units.

KINS 194C. Assigned Field Experiences in Pre-Physical Therapy. Assigned experience under the direction of a physical therapist. Students keep records of their experiences. Registration requires prior approval of the pre-physical therapy coordinator. May be repeated up to a total of 6 units. **Note:** Open to Physical Education majors in the pre-physical therapy option. Graded Credit/No Credit. 1-2 units.

KINS 194D. Assigned Field Experience in Coaching. Assigned experience in coaching (two hours daily for the full schedule of the sport for two units of credit). Students keep records of daily experiences and prepare periodic progress reports. Succeeding enrollments should be in different sports. May be repeated for a total of 6 units. Graded Credit/No Credit. 1-2 units.

KINS 194E. Assigned Internship in Adapted Physical Education. Assigned experience in the conduct of Adapted Physical Education Programs. Students will keep records of their experiences. Three clock hours per week per unit of credit. Credential candidates may not use in lieu of Phase III requirements. **Prerequisite:** Any two of the following: KINS 171, KINS 176, KINS 177, or KINS 179; permission of Adapted Credential Advisor. Graded Credit/No Credit. 1-3 units.

KINS 194F. Assigned Field Experience in Allied Health. Practical experience in Occupational Therapy, Chiropractic or other allied health professions. Students keep records of their experiences while working under the direct supervision of a licensed clinician. Registration requires prior approval of a Pre-Physical Therapy advisor. May be repeated up to a total of 6 units. Graded Credit/No Credit. 1-2 units.

KINS 194G. Assigned Professional Experience. Assigned professional experience in organization and evaluation of physical education, athletic training, exercise or pre-therapy. Students work closely with a CSUS faculty member and receive one unit of credit for three hours of work per week for one semester. May be repeated for a total of 3 units toward graduation. These units may not be applied to the major. Graded Credit/No Credit. 1-2 units.

KINS 194H. Assigned Field Experience in Athletic Training. Practical experience in athletic training under the direct supervision of an NATA Certified Athletic Trainer in one of the following settings: professional athletics, high school, clinic, industrial or private business. **Note:** Registration requires prior approval of the program director. May be repeated up to a total of 3 units. **Prerequisite:** BIO 022, KINS 156, KINS 195C or equivalent. Graded Credit/No Credit. 1-3 units.

KINS 195A. Directed Field Experience in Kinesiology. Directed experience in the conduct of physical education. Students keep records of daily experiences and prepare periodic progress reports. Students receive one unit of credit three hours per week for one semester of field experience. **Note:** Registration requires prior approval of the department coordinator. May be repeated for a total of 5 units. Graded Credit/No Credit. 1-2 units.

KINS 195B. Directed Internship in Exercise Science. Directed internship in the Human Performance Laboratory under the supervision of one or more members of the faculty. The student will assist in laboratory experiments and other special procedures; will learn the operation of equipment and sequentially will be expected to administer tests and interpret the results. Interns will be expected to attend monthly conferences. May be repeated for a total of 3 units. **Prerequisite:** KINS 151 and/or KINS 152; or instructor permission. Graded Credit/No Credit. 1-3 units.

KINS 195C. Directed Observation in Athletic Training. Planned student observation of the health care practices of the Athletic Trainer and other sports medicine personnel in a clinical setting. Selected NATA competencies may be completed on site. 60 hours per unit. Registration requires prior approval of Program Director. Graded Credit/No Credit. 1-2 units.

KINS 195D. Practicum in Athletic Training. Supervised athletic training experience in the athletic training room under the direct supervision of a Certified Athletic Trainer. Included are a series of guest lecturers from the medical and paramedical field presenting lectures and demonstrations on topics in sports medicine. 200 hours plus all lectures are 3 units; 300 hours plus all lectures are 4 units. **Prerequisite:** BIO 022, KINS 156, prior approval of the Program Director. Graded Credit/No Credit. 4 units.

KINS 196. Experimental Offerings in Kinesiology. Guided study and discussion of problems and topics in physical education. Supplemental readings, reports, and term projects are included. Proseminars dealing with specific topics or problems will be scheduled when the need exists. 2-3 units.

KINS 198A. Seminar in Physical Education - Elementary. Designed to accompany a nine-week elementary physical education student teaching experience. Focuses on helping student teachers implement developmentally appropriate lessons that are philosophically aligned with the Physical Education Framework for CA Public Schools while utilizing a variety of teaching methodologies, assessment strategies and effective teaching skills. **Note:** Open to Phase II physical education single subject credential candidates only. 1 unit.

KINS 198B. Seminar in Physical Education - Secondary. Examines the 7-12 school environment and the role of the student teacher. Emphasis will be on the problems and issues facing credential candidates in physical education. **Note:** Open to Physical Education Phase II students only. 1 unit.

KINS 199. Directed Individual Study. Individual research, project or directed reading. Open only to majors who appear competent to carry on individual work. Approval of the faculty under whom the individual work is to be conducted, and approval of the Department Chair required. Formal written report required. May be repeated for credit. 1-3 units.

GRADUATE COURSES

KINS 203. Specificity of Conditioning. Survey of current research in training regimen of conditioning programs designed to optimize physical conditioning in preparation for specific athletic competitions. 3 units.

KINS 210. Research Methods in Kinesiology. Various methods and techniques of educational research as they are commonly applied in the field of Kinesiology; study of examples of their use in published research; practice in applying them to problems of interest to the student; analyzing data and writing research reports. 3 units.

KINS 211. Research Seminar. Students develop and defend research proposals. Students registering for KINS 500 for the first time must register for KINS 211 concurrently. Graded Credit/No Credit; student must re-enroll if proposal is not completed and accepted during the first registration. 1 unit.

KINS 236. Sport and Society. Society and the institution of sport interact in a variety of ways. Students are given the opportunity to investigate and discuss in depth a wide range of topics linking sport and society. Among these topics are violence and aggression, politics, racism, sexism, counter-cultures, mass media and the future of sport. The application of research to the real world is an integral part of the course. 3 units.

KINS 250. Advanced Exercise Physiology Laboratory. Describes, explains, and practices the application of selected measurement techniques in the laboratory as they relate to pertinent research in the areas of exercise physiology. Emphasis will be placed on the use and calibration of equipment as well as adaptation of equipment to different research settings. Lecture two hours; laboratory three hours. **Prerequisite:** KINS 152 or instructor permission. 3 units.

KINS 252. Advanced Exercise Physiology. Human physiological responses, from the cellular level to organ system level, to both acute and chronic exercise will be studied in detail with an emphasis on integrative physiological responses to exercise. The course will emphasize a complex regulatory systems approach to the changes and adaptations that occur with exercise. Specifically, how the regulatory systems dictate these changes. The course will aid in the understanding of both theoretical and integrative concepts in the area of exercise physiology. The course will provide a solid foundation that is needed to review and understand complex research in exercise physiology. **Prerequisite:** 1 year of General Chemistry, BIO 131 or equivalent, KINS 152 or equivalent, and KINS 153 or equivalent. 3 units.

KINS 254. Advanced Biomechanics. The intent of this course is to study human movement from a mechanical perspective utilizing laws of physics and relevant functional anatomical principles. Human movement will be looked at from a broad perspective, including basic movements to more complex skills. Students will use a variety of techniques to study the biomechanical principles of movement production including laboratory work, library research and examination of the appropriate theoretical constructs. Lecture two hours; laboratory three hours. **Prerequisite:** KINS 151, KINS 210; or instructor permission. 3 units.

KINS 257. Motor Development and Motor Control. The study of the neurological processes involved in motor development and motor control, including sensory integration, perceptual motor development, attention, memory, modes of motor control and motor programs. 3 units.

KINS 258. Research in Motor Learning. Designed to provide students with a solid foundation experience in motor learning; focus is on an intensive examination of a selected topic in motor learning; directed individual pilot study and the nature of original laboratory research. **Prerequisite:** KINS 158, KINS 210, or instructor permission. 3 units.

KINS 259. Research in Exercise Physiology. Provides students with a solid foundation experience in human performance research. Primary focus is on intensive examination of selected advanced topics in exercise physiology. **Prerequisite:** KINS 152, KINS 210, or instructor permission. 3 units.

KINS 260. Psychology of Sport and Exercise. The in-depth study of parameters of human behavior as specifically related to sport and exercise, including motivational techniques, personality factors, aggression, arousal, stress control, cognitive intervention strategy, exercise therapy, psychological status and health/injury cohesion, and attention. 3 units.

KINS 262. Psychological Aspects of Peak Performance. An in-depth examination of current research relating to theories of and techniques for performance enhancement in sport and dance through psychological skills strategies. 3 units.

KINS 270. Instructional Strategies for Physical Activity and Sport. A study of theoretical concepts, models and research that relates to organizational and instructional strategies for physical activity and sport. Along with developing problem solving and critical thinking skills, provides the student with the opportunity to partake in self-directed and cooperative learning experiences, and develops communications skills that will enhance staff development and teaching of individuals and groups in a variety of physical activity and sport environments. 3 units.

KINS 274. Program Planning: The Learner. Study of selected neuropsychological, psychosocial and biophysical variables which lead to the flow of learning in the Physical Education school setting. 3 units.

KINS 275. Program Planning: Design and Content. Study of selected cultural and educational variables which affect program planning strategies and content; principles and processes used in the planning, designing and evaluation of Physical Education programs. 3 units.

KINS 276. Teaching and Coaching Effectiveness. A study of the research methodology, systematic observation, and findings that relate to effective teaching and coaching in the school environment. Provides an analytical approach to the investigation of teaching and coaching behaviors by examining models and critical variables involved in describing, analyzing and interpreting the instructional process. 3 units.

KINS 294A. Contemporary Topics in Sport Performance. Advanced research seminars on topics of contemporary interest. Specific topics will vary. **Note:** May be taken more than once for credit, provided topic is not repeated. **Prerequisite:** KINS 210. 1-3 units.

KINS 294B. Contemporary Topics in Exercise Physiology. Advanced research seminars on topics of contemporary interest. Specific topics will vary. **Note:** May be taken more than once for credit, provided topic is not repeated. **Prerequisite:** KINS 210. 1-3 units.

KINS 294C. Special Topics in Biomechanics. Advanced research seminars on varied topics of contemporary interest. **Note:** May be taken more than once for credit, provided topic is not repeated. **Prerequisite:** KINS 254. 1-3. units.

KINS 295. Practicum. Graduate experiences in a practical setting. **Note:** Open only to graduate students within the Physical Education Department. **Prerequisite:** Approval of graduate faculty advisor and graduate coordinator. Graded Credit/No Credit. 1-3 units.

KINS 296. Experimental Offerings in Kinesiology. Guided study in selected topics. Previous offerings have included motor development, current issues and problems, sports psychology, corrective physical education and physical education for the educationally handicapped. 2-3 units.

KINS 299. Directed Individual Study. Individual research, project, or directed reading. **Note:** Open only to majors who appear competent to carry on individual work. Admission to this course requires approval of the graduate advisor and the graduate coordinator. Formal written report required. May be repeated for credit. Graded Credit/No Credit. 1-3 units.

KINS 500. Culminating Experience. Completion of a thesis or project under the direction of a department committee. **Note:** Open only to graduate students advanced to candidacy. **Prerequisite:** Completion of KINS 211 or concurrent enrollment. Graded Credit/No Credit. 1-4 units.