The Exercise and Movement Sciences concentration prepares students for advanced study in a number of exercise and movement related fields. This degree concentration examines Kinesiology from the perspectives of exercise physiology; biomechanics; motor learning and development; and the psychological and the social-cultural aspects of physical activity. The programmatic approach is multidisciplinary and invites study in the physical, biological and social sciences, psychology, philosophy, and communication. The degree program examines those factors that influence the form, function, and effectiveness of exercise and movement across the lifespan and for the disabled.

This degree concentration will prepare students who wish to become exercise physiologists or fitness specialists in clinical, research, educational, or business settings, or who seek careers in physical or occupational therapy, biomechanics, motor learning and development, and ergonomics. Students will also be prepared for advanced study in such fields as sport history, sport sociology, sport and exercise psychology, and at-risk youth development. In addition, students who wish to pursue graduate studies in these areas will be well prepared to do so. Students will also be ready to pursue endeavors in the private sector.

**PRE-REQUISITES TO CORE REQUIREMENTS (13-15 Units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100</td>
<td>Human Biology</td>
<td>3.5</td>
</tr>
<tr>
<td>BIO 328</td>
<td>Human Anatomy</td>
<td>4</td>
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<tr>
<td>MATH 124</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>KIN 250</td>
<td>Introduction to Kinesiology</td>
<td>3</td>
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**CORE REQUIREMENTS (19 Units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>KIN 330</td>
<td>G.W.A.R: Becoming a Kinesiologist</td>
<td>3</td>
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<tr>
<td>KIN 384</td>
<td>Research in Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 457</td>
<td>Culture, Gender and Movement</td>
<td>3</td>
</tr>
<tr>
<td>KIN 480</td>
<td>Anatomical Kinesiology</td>
<td>4</td>
</tr>
<tr>
<td>KIN 486</td>
<td>Motor Learning</td>
<td>3</td>
</tr>
<tr>
<td>KIN 504</td>
<td>Sport and Exercise Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**PRE-REQUISITE AND CORE TOTAL**  
32-34
CONCENTRATION: Exercise and Movement Sciences

BIO 610  Human Physiology 10  3
BIO 611  Human Physiology Lab 11  1
CHEM 101  Survey of Chemistry and  
CHEM 102  Survey of Chemistry Lab (OR)  
CHEM 115  General Chemistry 12  4-5
PHYS 101  Conceptual Physics 13 and  
PHYS 102  Conceptual Physics Lab 14 (OR)  
PHYS 111  General Physics I 15 and  
PHYS 112  General Physics I Lab 16  4
KIN 482  Exercise Physiology 17  3
KIN 483  Exercise Physiology Lab 18  1
KIN 485  Biomechanics 20  3
KIN 697-8  Integrative Research Seminar 21, 698  3  (OR)
KIN 699  Independent Research 22  3  (OR)
KIN 696  Kinesiology Community Internship 23  3
KIN Activities  1 Advisor Approved Activity Course (KIN/DANC) 24  1

Students must choose an emphasis area which accounts for 11-12 Units in order to complete the degree program.

THE EMPHASIS AREAS ARE AS FOLLOW:

MOVEMENT SCIENCE

Neuromuscular Science (12 Units)
KIN 487  Motor Development 25  3
KIN 538  Therapeutic Exercise 26  3
KIN 680  Quantitative Analysis of Human Performance 27  3
KIN 636  Neuromotor Control Processes 28  3

OR

Human Performance Analysis (12 Units)
KIN 325  Computer Applications in Kinesiology 29  3
KIN 331  Peak Performance 30  3
KIN 539  Motor Assessment of Individuals with Disabilities 31  3
KIN 680  Quantitative Analysis of Human Performance 32  3

Page 2 of 4
SOCIAL SCIENCE

Fitness, Physical Activity, & Society (12 Units)

KIN 502  Sport and Social Issues* 3

Select 9 Units from the following courses:

KIN 300  Health Related Fitness & Wellness 3
KIN 322  Sport in America 3
KIN 437  Physical Dimensions of Aging 3
KIN 490  Introduction to Sport and Fitness Management 3
KIN 510  Sport, Movement and Screen Culture3

* Required Course

OR

Social Science Studies in Physical Activity (11 Units)

KIN 489  History/Philosophy of Physical Activity* 3

Select a minimum of 9 Units from the following courses:

KIN 322  Sport in America 3
KIN 331  Peak Performance 3
KIN 502  Sport and Social Issues 3
KIN 510  Sport, Movement and Screen Culture

* Required Course

EXERCISE SCIENCE

(CPR IS REQUIRED)

Physiology of Fitness & Health (12 Units)

KIN 490  Introduction to Sport and Fitness Management 3
KIN 555  Exercise Testing and Prescription 3
KIN 683  Applied Exercise Physiology 3
KIN 690  Internship

OR

Fitness Programming in Youth and Elderly Populations (11 Units)

KIN 308  Instructional Analysis: Fitness Activities 2
KIN 490  Introduction to Sport and Fitness Management 3
KIN 437  Physical Dimensions of Aging 3
KIN 555  Exercise Prescription 3

TOTAL FOR CONCENTRATION 66-70
COURSE PRE-REQUISITES

1. Credit for this course can be applied towards San Francisco State University General Education (GE) Requirements. Students may apply up to 12 GE units towards the major.
2. One course in college biology. Grade of "C" or better in BIOL 100 + 101 or BIOL 230, and 30 or more units.
3. Successful completion of Entry Level Mathematics Exam (ELM), score of 550 or above.
4. Completion of GE Segment I with grades of C or better; declared KIN major.
5. ENG 214 with grade of C- or better or equivalent; declared KIN major; upper division standing.
6. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
7. Passing JEPET or ENG 414 or KIN 330 GW, KIN 250 Math 124 or equivalent with all grades of C or better; upper division standing or consent of instructor.
8. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250, all with grades of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Concurrent enrollment in an activity course is recommended.
9. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
10. BIOL 328, CHEM 101, or consent of instructor.
11. BIOL 610 (may be taken concurrently)
12. 50 or above on ELM or approved exemption, or MATH 70 with grade of C, and satisfactory score on chemistry placement exam.
13. High school algebra and score of 50 or above on entry level mathematics (ELM) examination, which must be taken prior to enrollment.
14. Must be taken concurrently with PHYS 101
15. MATH 109 or equivalent. Score of 50 or above on entry level mathematics (ELM) examination, which must be taken prior to enrollment. Acceptable score on the physics readiness test (to be administered during first week of class).
16. Must be taken concurrently with PHYS 112.
17. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250, BIOL 610 and BIO 611, all with grades of C or better. Must be taken concurrently with KIN 483.
18. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250, BIOL 610 and BIO 611, all with grades of C or better. Must be taken concurrently with KIN 482.
19. Passing JEPET or ENG 414 or KIN 330 GW, KIN 250, Math 124 or equivalent with all grades of C or better; upper division standing or Consent of instructor.
20. Passing JEPET or ENG 414 or KIN 330 GW, and two additional courses of the GE Segment I requirements; BIOL 328, KIN 250, and KIN 480, all with grades of C or better; upper division standing or consent of instructor.
21. ENG 214 and two additional courses of the GE Segment I requirements; KIN 384; KIN 483, KIN 485, KIN 486; upper division standing or consent of instructor. Must be taken concurrently with KIN 698. Enrollment preference given to graduating seniors.
22. ENG 214 and two additional courses of the GE Segment I requirements; KIN 482, KIN 485, KIN 486; upper division standing, B average and consent of advisor and instructor. Must be taken concurrently with KIN 697.
23. Consent of associate chair and supervising instructor. Overall GPA of 3.0 or above.
24. KIN 384, 482, 483, 485, 486, and 504; upper division standing; or consent of instructor. Enrollment preference given to graduating seniors.
25. Advisor approval.
26. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
27. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250, all with grades of C or better; two additional courses of the GE Segment I requirements; KIN 482/483 or KIN 355; KIN 480; upper division standing or consent of instructor.
28. KIN 485 with grade of C or better; upper division standing or consent of instructor.
29. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; KIN 486; upper division standing or consent of instructor. PSY 581 or BIOL 642 is recommended.
30. Passing JEPET or ENG 414 or KIN 330 GW, KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Enrollment priority to kinesiology majors.
31. ENG 214 and two additional courses of the GE Segment I requirements, upper division standing or consent of instructor.
32. Passing JEPET or ENG 414 or KIN 330 GW, and KIN 250, all with grades of C or better; KIN 536 and two additional courses of the GE Segment I requirements; 537 recommended; upper division standing or consent of instructor.
33. Segment I with grades of C or better; enrollment in activity class recommended.
34. Passing JEPET or ENG 414 or KIN 330 GW, KIN 250, Biol 328, and Biol 610, all with grades of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
35. ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
36. Passing JEPET or ENG 414 or KIN 330 GW, KIN 250 with a grade of C or better; two additional courses of the GE Segment I requirements; upper division standing or consent of instructor.
37. KIN 189 or equivalent, KIN 480, 482, 483 or consent of instructor.
38. Passing JEPET or ENG 414 or KIN 330GW and two additional courses of the GE Segment I requirements; BIOL 328, 610, and 611, and KIN 384, 482 and 483 with grades of C or better; upper division standing or consent of instructor.
39. KIN 300 (may be taken concurrently); successful completion of fitness assessment; or consent of instructor.
40. Passing JEPET or ENG 414 or KIN 330 GW and two additional courses of the GE Segment I requirements; KIN 384, 482, 483, and90; upper division standing or consent of instructor. Prior completion of KIN 555 is strongly recommended. Attendance to a MANDATORY meeting at the end of the semester PRIOR to enrollment is required. Exact dates and times will be posted in the gymnasium by the instructor.