

1. Restricted to Kinesiology Majors. Must be taken concurrently with KIN 384 GW
2. Restricted to Biology, Biochemistry, Chemistry, Clinical Science, and Kinesiology majors with sophomore standing or above; BIOL 230 with a grade of C- or better; or consent of the instructor.
3. Category I or II placement for QR/Math, or satisfactory completion of ELM requirement, or MATH 70 or ESM 70 with a grade of C or better. Students with Category III or IV placement for QR/Math or students who have not passed MATH 70 or ESM 70 with a C or better or satisfied the ELM must concurrently enroll in MATH 123.
4. Completion of GE Areas A and B4 requirements with grades of C or better; priority given to undeclared with interest in KIN or declared KIN major.
5. Completion of GE Areas A and B4 with grades of C or better; priority enrollment for undeclared with interest in KIN or declared KIN major.
6. KIN 384GW*; Restricted to upper-division Kinesiology majors;
7. BIOL 220 or BIOL 328 or equivalent with a grade of C or better; KIN 384GW* (may be taken concurrently). Restricted to upper-division Kinesiology majors
8. KIN 384GW* (may be taken concurrently). Restricted to upper-division Kinesiology majors
9. Category I or II placement for QR/Math. Category III or IV placement for QR/Math must have completed MATH 197 with a grade of C or better or satisfied the B4 requirement. An ELM score of 50 or higher or exemption; or MATH 70 or ESM 70 with a grade of C or better. High school chemistry recommended.
10. CHEM 101 or CHEM 115, BIOL 100 and BIOL 101 or BIOL 210, all with grades of C or better. Intended for non-Biology majors.
11. BIOL 212 (may be taken concurrently).
12. Category I or II placement for QR/Math, or ELM score of 50 or higher or exemption, or MATH 70 or ESM 70 with a grade of C or better. Category III or IV for QR/Math placement or students who have not completed MATH 70 with a grade of C or better must have completed MATH 197 with a grade of C or better, or have satisfied the B4 requirement. Satisfactory score on the Chemistry readiness assessment. CHEM 100 is recommended for students needing additional preparation for the assessment and CHEM 115.
13. Category I or II placement for QR/Math, or completion of GE Area B4, or MATH 197.
14. Must be taken concurrently with PHYS 101.
15. MATH 198 or MATH 199 or equivalent with a grade of C-minus or higher. Concurrent enrollment in PHYS 112 required. If pre-calculus was completed in high school, the online Math Preparation for Physics mini-course is required; see the Department of Physics & Astronomy website for details.
16. Must be taken concurrently with PHYS 111.
17. BIOL 212*, or equivalent, KIN 240 or KIN 250, and KIN 384GW*. Restricted to upper-division Kinesiology majors.
18. BIOL 212* and BIOL 213* or equivalents with grades of C or better; KIN 384GW*; or consent of the instructor. Concurrent enrollment in KIN 482. Restricted to Upper-division Kinesiology majors.
19. Restricted to upper-division Kinesiology majors; GE Area A2; KIN 240* or KIN 250* (may be taken concurrently) and MATH 124* or equivalent with grades of C or better.
20. PHYS 101 and PHYS 102 or PHYS 111 and PHYS 112; KIN 384GW or equivalent; KIN 480*; all with grades of C or better. Restricted to upper-division Kinesiology majors.
21. Restricted to upper-division Kinesiology majors; Concurrent enrollment in KIN 698; or consent of the instructor. Enrollment priority given to graduating seniors.
22. Restricted to upper-division Kinesiology majors; concurrent enrollment in KIN 697; or consent of the instructor. Enrollment priority given to graduating seniors.

23. Restricted to upper-division standing; overall GPA of 3.0 or above; consent of the associate chair and supervising instructor.
24. Upper-division Kinesiology majors; KIN 482, KIN 483, KIN 485, KIN 486, and KIN 504; or consent of the instructor. Enrollment priority given to graduating seniors.
25. Advisor approval.
26. Restricted to upper-division standing; GE Areas A1, A2, A3, and B4; or consent of the instructor.
27. KIN 480*; KIN 482* or KIN 355*. Restricted to upper-division standing Kinesiology majors.
28. KIN 485* with a grade of C or better; or consent of the instructor. Restricted to upper-division Kinesiology majors.
29. KIN 486* with a grade of C or better; or consent of the instructor. Restricted to upper-division Kinesiology majors.
30. Restricted to upper-division standing; KIN 250 with a grade of C or better; or consent of the instructor.
31. Restricted to upper-division standing; GE Areas A1, A2, A3, and B4.
32. KIN 384GW*; KIN 536 and KIN 537 recommended. Restricted to upper-division Kinesiology majors.
33. Completion of GE Areas A and B4 with grades of C or better; enrollment in an activity course is recommended.
34. BIOL 212*; BIOL 220* or BIOL 328*, and KIN 384GW* or equivalents with grades of C or better; GPA of 3.0 or higher; or consent of the instructor. Restricted to upper-division Kinesiology majors.
35. Upper division standing or consent of instructor; completion of GE Area A4 requirement and two additional courses in GE Areas A and B4.
36. Restricted to upper-division Kinesiology majors.
37. KIN 189 or equivalent, KIN 480, KIN 482, & KIN 483 or consent of instructor.
38. Restricted to upper-division Kinesiology majors; KIN 482* and KIN 483* with grades of C or better; or consent of the instructor.
39. KIN 255 (may be taken concurrently); fitness assessment; or consent of the instructor.
40. BIOL 100 and 101, or BIOL 212 and 213.
41. Restricted to Biology and Biochemistry majors and minors, Kinesiology majors, and Environmental Studies: Natural Resources Management and Conservation majors.
42. KIN 384 GVAR, KIN 482, KIN 483, and KIN 490. Prior completion of KIN 555 is strongly recommended. Attendance at MANDATORY meeting at the end of the semester PRIOR to enrollment is required. Upper division standing or consent of instructor; completion of GE Area A4; two additional courses in GE Areas A and B4.
43. KIN 482, KIN 483, and KIN 490; or consent of the instructor. KIN 555 is strongly recommended. Attendance at MANDATORY meeting at the end of the semester PRIOR to enrollment is required. Dates and times will be posted in the gymnasium. Restricted to upper-division Kinesiology majors.
44. KIN 250 or consent of instructor
45. KIN 240 and KIN 384GW or consent of the instructor.
46. KIN 240*, KIN 310, and KIN 384GW*; or consent of the instructor. Restricted to Kinesiology majors; upper-division standing.
47. Restricted to Kinesiology Majors; KIN 250



College of Health & Social Sciences
Department of Kinesiology

BACHELOR OF SCIENCE IN KINESIOLOGY Concentration in Exercise and Movement Sciences

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.

Advising Students in all the programs must work closely with an advisor to select the proper degree program, concentration, and configuration of courses to support career and scholarly interest related to the study of human movement and physical activity. Students seeking to major in or change their major to kinesiology must consult with the undergraduate advisor in GYM 137 to be officially accepted into the major.

Undergraduate students interested in pursuing a master's degree in kinesiology should speak to their academic advisor after completing core requirements in the program (KIN 384, KIN 457, KIN 480, KIN 486, and KIN 504).

Many of the courses listed in the major patterns have prerequisites or co-requisites and must be taken in a particular sequence. (Consult the on-line course descriptions.) See "Duplicate Use of Credit Between the Major and GE" at http://bulletin.sfsu.edu/undergraduate_education/uged/Undergraduate_Degree_Overview. Prior approval by the student's

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BACHELOR OF SCIENCE IN KINESIOLOGY: Concentration in Exercise and Movement Sciences (67-70 Units)

1 Pre-requisites (14-15 units)

BIOL 100 Human Biology (3 units)	BIOL 101 Human Biology Lab (1 unit)
OR	
BIOL 230 Introduction to Biology (5)	

MATH 124 Elementary Statistics (3 units)	BIOL 220 Principles of Human Anatomy (4 units)
OR	
KIN 250 Introduction to Kinesiology (3 units)	BIOL 328 Human Anatomy (4 units)

2 Core Requirements (18 units)

KIN 251 Success In Kinesiology (2 units)	KIN 384 GW Research Methods GWAR (3 units)
KIN 480 Anatomical Kinesiology (4 units)	KIN 457 Culture, Gender, and Movement (3 units)
KIN 486 Motor Learning (3 units)	KIN 404 Sports and Exercise Psychology (3 units)

3 Concentration Requirements (23-24 units)

CHEM 101 Survey of Chemistry (3 units)	CHEM 102 Survey of Chemistry Lab (1 unit)
OR	
CHEM 115 General Chemistry I (5 units)	

BIOL 212 Principles of Human Physiology (3 units)	BIOL 213 Principles of Human Physiology Lab (1 unit)
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PHYS 101 Conceptual Physics (3 units)	PHYS 102 Conceptual Physics Lab (1 unit)
OR	
PHYS 111 General Physics I (3 units)	PHYS 112 General Physics I Lab (1 unit)

KIN 482 Exercise Physiology (3 units)	KIN 483 Exercise Physiology Lab (1 unit)
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KIN 485 Biomechanics (3 units)	KIN ACTIVITY KIN activity course (1 unit)
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KIN 697 Integrative Research Seminar (3 units)	KIN 699 Independent Study (3 units)	KIN 696 Kinesiology Community Internship (3 units)
OR		
KIN 698 Senior Research Project (1 unit)		

4 Emphasis Areas (11-12 units)

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

Movement Science Emphasis

- KIN 325 Computer Applications in Kinesiology (3) [30]
- KIN 331 Peak Performance (3) [31]
- KIN 437 Physical Dimensions of Aging (3) [34]
- KIN 487 Motor Development (3) [26]
- KIN 538 Therapeutic Exercise (3) [27]
- KIN 539 Motor Assessment of Individuals with Disabilities (3) [32]
- KIN 636 Neuromotor Control Processes (3) [29]
- KIN 680 Quantitative Analysis of Human Performance (3) [28]
- KIN 681 Muscle Mechanics (3) [43]

Social Science Emphasis

- KIN 255 Health Related Fitness & Wellness (3) [33]
- KIN 322 Sport in America (3) [31]
- KIN 331 Peak Performance (3) [31]
- KIN 434 Sport-based Youth Development (3) [47]
- KIN 437 Physical Dimensions of Aging (3) [6]
- KIN 489 History/Philosophy of Physical Activity (3) [30]
- KIN 490 Introduction to Sport and Fitness Management (3) [36]
- KIN 502 Sport and Social Issues (3) [31]
- KIN 510 Sport, Movement and Screen Culture (3) [31]

Exercise Science Emphasis

- KIN 310 Youth Development Instructional Analysis I (3) [45] (or KIN 312)
- KIN 314 Theory and Application of Fitness Training (3) [44]
- KIN 437 Physical Dimensions of Aging (3) [34]
- KIN 490 Introduction to Sport and Fitness Management (3) [36]
- KIN 538 Therapeutic Exercise (3) [27]
- KIN 555 Exercise Testing and Prescription (3) [37]
- KIN 681 Muscle Mechanics (3) [43]
- KIN 683 Applied Exercise Physiology (3) [38]
- KIN 690 Internship (3) [42]

General Education Requirements Met in Major | Below are lists of courses that meet both GE and major requirements. This is referred to as "duplicate use of credit" or "double-counting."

LEGEND

- This course may not be substituted
- This course may be substituted with a relevant course
- () Units
- [] Course Prerequisites

Area B: Scientific Inquiry and Quantitative Reasoning

Physical Science (B1) - 3 units
 PHYS 101 Conceptual Physics
 CHEM 101 Survey of Chemistry
 PHYS 111 General Physics I

Life Sciences (B2) - 3 units
 BIOL 100 Human Biology
 BIOL 212 Principles of Human Physiology
 BIOL 220 Principles of Human Anatomy
 BIOL 328 Human Anatomy

Physical or Life Science Lab (B3) 0-1 units
 BIOL 101 Human Biology Laboratory
 CHEM 102 Survey of Chemistry Laboratory
 PHYS 102 Conceptual Physics Laboratory
 PHYS 112 General Physics I Laboratory

Math/Quantitative Reasoning (B4) - 3 units
 MATH 124 Elementary Statistics

Area D: Social Sciences

Social Sciences (D1) - 3 units
 KIN 255 Health-related Fitness and Wellness

Area E: Lifelong Learning & Self-Development (LLD)

BIOL 100 Human Biology
 COMM 531 Conflict Resolution (4) *
 KIN 255 Health-related Fitness and Wellness
 KIN 331 Peak Performance
 KIN 355 Science, Sport, and Fitness
 RPT 380 Developmental Play Processes *

Upper Division General Education

Physical and/or Life Sciences (UD-B) - 3 units
 KIN 355 Science, Sport, and Fitness
 KIN 487 Motor Development

Social Sciences (UD-D) - 3 units
 KIN 331 Peak Performance
 KIN 502 Sport and Social Issues

Arts and/or Humanities (UD-C) - 3 units
 KIN 510 Sports, Movement and Screen Culture

SF State Studies

Environmental Sustainability (ES)
 KIN 255 Health-related Fitness and Wellness

Global Perspective (GP)
 KIN 255 Health-related Fitness and Wellness
 KIN 331 Peak Performance
 KIN 457 Culture, Gender, and Movement
 KIN 510 Sports, Movement and Screen Culture

Social Justice (SJ)
 BIOL 100 Human Biology
 KIN 255 Health-related Fitness and Wellness
 KIN 331 Peak Performance
 KIN 502 Sport and Social Issues
 KIN 510 Sports, Movement and Screen Culture

American Ethnicities & Racial Minorities (AERM)
 KIN 502 Sport and Social Issues