

one of the central disciplines in biology and is of particular importance in the health professions and agriculture. This option offers excellent preprofessional preparation for medicine, dentistry, pharmacy, various careers requiring physiology, and for advanced graduate study. Students planning to enter professional and graduate programs should elect Chem 1A-B and 128A-B rather than Chem 3A and 8, and should consult an adviser about additional mathematics requirements as well.

Units

Option requirements 41
 Biology Core (21)
 A. Select one course from each of these three lines (9-12)
 1. Bot 133; PhyAn 130, 133, 135; Zool 132
 2. Bot 137; Micro 161; PhyAn 160
 3. Bot 130; PhyAn 141, 151; M Sci 123
 B. Select two additional courses from the following list or from other courses listed in category A (6-8)
 Genet 172; PhyAn 140, 162, 164, 165, 172
 C. Biological Science Electives (0-5)
 Select sufficient Biology Department courses to complete the option. Only one elective course may be lower division.
Additional requirements 32-41
 1. Chem 3A or 1A-B, 8 or 128A-B, 109, 150 or 155 .. (13-22)
 2. Phys 2A-B (8)
 3. Math 70 or 75 (4)
 4. C Sci 101 (3)
 5. Math 101 or Psych 42 (4)
Remaining General Education requirements 42*
Electives and remaining degree requirements 0-9
 (see *Degree Requirements*); may include a minor
Total 124

*Nine units of General Education requirements are satisfied to the following extent by major and additional requirements: CORE, Category 3 by Math 70, 72, or 75; Psych 42; BREADTH, Division 1 by Chem 3A, Division 2 by BioSc 1A. Consult your major academic adviser for details.

Ecology Option

This degree program is intended for students who wish to study the interrelationships between living things and their environments. This option has a strong field component that takes full advantage of the outstanding natural environments conveniently located near our campus. Students in this program gain an in-depth understanding of ecology and evolution, and acquire the skills to apply that understanding to important questions in freshwater, marine, and terrestrial systems, in fisheries and wildlife management, or other branches of applied ecology. Students completing this option are well prepared for entry into a wide range of environmental careers with governmental field research agencies, in agriculture-related areas, environmental microbiology, environmental law and consulting firms, or for graduate programs leading to advanced degrees in ecology, management, and evolution. Students may obtain an emphasis in marine science by selecting electives offered at the Moss Landing Marine Laboratories. Faculty advising plays an important role in this program. Students must consult an adviser for help in selecting courses appropriate to their interests and career objectives.

Units

Option requirements 47
 Biology Core (21)
 A. Select one course from the following (4)
 Ecol 151, 152; M Sci 103
 B. Select one course from the following (3-4)
 Bot 130; Micro 161; PhyAn 141, 151; M Sci 123
At least one botany (Bot) or microbiology (Micro) course must be selected from categories C or D below. M Sci 131 is also acceptable.
 C. Select one course from the following (3-4)
 Bot 131, 132; Micro 140; Zool 120, 141, 150; M Sci 124, 131
 D. Biological Science Electives (14-16)
 Select sufficient Biology Department courses, including those listed in categories A, B, and C, to complete the option. Only one elective course may be lower division.

Additional requirements 24-25

1. Chem 3A, 8, and 150 (10)
2. Math 70 or 75 (4)
3. C Sci 101 (3)
4. Math 101 or Psych 42 (4)
5. Select one course from the following (3-4)
 C Sci 20; Phys 2A; M Sci 142, 143; Geol 1, 105; SI 101

Remaining General

Education requirements 42*
Electives and remaining degree requirements 10-11
 (see *Degree Requirements*); may include a minor
Total 124

*Nine units of General Education requirements are satisfied to the following extent by major and additional requirements: CORE, Category 3 by Math 70, 72, or 75; Psych 42; BREADTH, Division 1 by Chem 3A, Division 2 by BioSc 1A. Consult your major academic adviser for details.

Advising Notes for all Options within the Bachelor of Science in Biology

1. B.S. biology majors who have taken introductory sequences other than Bio-Sc 1A-B must consult with their faculty adviser or department chair for equivalency evaluation prior to beginning their upper-division coursework.
2. Chem 1A may be taken as a substitute for Chem 3A, and Chem 128A and 128B may substitute for Chem 8. The reverse substitutions are not permissible. Pre-medical students should take Chem 1A and 1B and 128A and 128B instead of Chem 3A and 8.
3. Math 71 plus 72 may be taken as a substitute for Math 70 or 75.
4. B.S. biology majors selecting options in Molecular and Cellular Biology or in Physiology can complete a Minor in Chemistry with the addition of Chem 105. Consult the chemistry department chair for details (see *Chemistry Minor*).
5. No course used to satisfy General Education CAPSTONE requirements may be used to satisfy biology major requirements.
6. CR/NC grading is not permitted in the biology major.
7. General Education, additional, and elective requirements may be used toward a dual major or minor (see *Dual Major* or departmental *minor*). Consult the appropriate department chair, program coordinator, or faculty adviser for additional information.