



Biology AS-T Degree - combined botany & zoology

PART TIME

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2024-25

GE Pattern: IGETC-STEM

Total Units: 60

First Year

Semester 1

7 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|------------------------------|-------------------------------------|------|---------|
| RE | MATH 355 ¹ | Calculus for Biology and Medicine I | 4 | 2 |
| GE | ENGWR 300 / 480 ^H | College Composition | 3 | 1A |

¹ or MATH 400 (Calculus I). See a counselor to determine the appropriate math course(s) to take, based on your educational goals.

Semester 2

6 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|--------|--|------|---------|
| GE | | any Area 1B (Critical Thinking) course | 3 | 1B |
| Elec | | any elective course numbered 300-499 | 3 | |

Second Year

Semester 3

8 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|---------------------------------|------|---------|
| Req | CHEM 400 | General Chemistry I | 5 | 5A |
| GE | | any Area 3B (Humanities) course | 3 | 3B |

Semester 4

8 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|---|------|---------|
| Req | CHEM 401 | General Chemistry II | 5 | |
| GE | | any Area 1C (Oral Communication) course | 3 | 1C |

Third Year

Semester 5

8 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|--|------|---------|
| Req | BIOL 400 | Principles of Biology | 5 | 5B, 5C |
| GE | | any Area 4 (Social & Behavioral Sciences) course | 3 | 4 |

Semester 6

9 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|--------|-------|------|---------|
|------|--------|-------|------|---------|

4 YEARS

TRANSFER PATH

Potential Transfer Majors:

- Biology B.S.

Potential Career/Options After Completing a Bachelor's Degree:

Career opportunities include:

- physician
- physiologist
- molecular biologist
- biotechnologist
- cell biologist
- geneticist
- researcher (lab or field)
- botanist
- zoologist
- ecologist
- technical writer

A bachelor's degree in biology also prepares students for professional schools including medical school, dental school, and optometry school.

Advising Notes:

- This roadmap, with combined botany and zoology (BIOL 415), is only recommended for students with strong science backgrounds and few outside commitments.
- Students can substitute ESLW 340 for ENGWR 300/480.

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|---|------|---------|
| Req | BIOL 415 | Introduction to Biology: Biodiversity, Evolution, and Ecology | 5 | |
| Elec | | any elective course numbered 300-499 | 3 | |
| Elec | | any elective course numbered 300-499 | 1 | |

Fourth Year

Semester 7

7 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|---------------------------|------|---------|
| Req | PHYS 350 | General Physics | 4 | |
| GE | | any Area 3A (Arts) course | 3 | 3A |

Semester 8

7 Units

| CAT. | COURSE | TITLE | UNIT | GE AREA |
|------|----------|------------------------------------|------|---------|
| Req | PHYS 360 | General Physics | 4 | |
| GE | | any Area 7 (Ethnic Studies) course | 3 | 7 |

EXPLANATION OF CATEGORIES

| | | |
|------|---------------------|--|
| RE | Restricted Elective | A course selected from a list of elective courses specified for this program in the course list in the catalog, which can be replaced with another course from the same list |
| GE | General Education | A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement |
| Elec | Degree Elective | A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree |
| Req | Required Core | A course that is required for this program |

- This map starts with MATH 355 and CHEM 400, which have prerequisites. Please [see a counselor](#) to add in prerequisite courses, if needed.

Other Notes to Students Preparing to Transfer:

- CSUS and some other CSUs require STAT 300 for admission.
- Organic chemistry and second semester calculus are often required for transfer.
- See [ASSIST.ORG](#) for the transfer requirements of the institution to which you plan to transfer.
- The UC system requires proficiency in a language other than English equivalent to two years of high school study. [See a counselor](#) about fulfilling this requirement.

Honors Courses (H):

Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an [Honors](#) Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.