



# Biotechnology A.S. Degree - transfer

FULL 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: local AA/AS

Total Units: 60

## First Year

### Semester 1

15 Units

| CAT. | COURSE    | TITLE                                      | UNIT | GE AREA |
|------|-----------|--|------|---------|
| RE   | CHEM 400  | General Chemistry I                        | 5    | IV      |
| Req  | STAT 300  | Introduction to Probability and Statistics | 4    | IIb MC  |
| Req  | ENGWR 300 | College Composition                        | 3    | IIa WC  |
| GE   | HCD 310   | College Success                            | 3    | IIIb    |

### Semester 2

14 Units

| CAT. | COURSE    | TITLE                                      | UNIT | GE AREA |
|------|-----------|--|------|---------|
| RE   | BIOL 400  | Principles of Biology                      | 5    |         |
| RE   | ENGWR 302 | Advanced Composition and Critical Thinking | 3    |         |
| RE   | CHEM 401  | General Chemistry II                       | 5    |         |
| GE   |           | any PE activity course                     | 1    | IIIa    |

## Second Year

### Semester 3

15 Units

| CAT. | COURSE    | TITLE   | UNIT | GE AREA |
|------|-----------|---|------|---------|
| Req  | BIOT 301  | Biotechnology and Human Health                                | 3    |         |
| RE   | BIOT 305  | Introduction to Bioinformatics                                | 1    |         |
| Req  | BIOT 307  | Biotechnology and Society                                     | 2    |         |
| Elec | BIOL 415  | Introduction to Biology: Biodiversity, Evolution, and Ecology | 5    |         |
| Elec | COMM 301  | Introduction to Public Speaking                               | 3    |         |
| Elec | FITNS 392 | Yoga  | 1    |         |

### Semester 4

16 Units

| CAT. | COURSE   | TITLE  | UNIT | GE AREA |
|------|----------|--|------|---------|
| Req  | BIOT 311 | Biotechnology Laboratory Methods - Molecular Techniques                  | 2    |         |
| Req  | BIOT 312 | Biotechnology Laboratory Methods - Microbial and Cell Culture Techniques | 2    |         |
| GE   | HIST 330 | Women in American History  | 3    | VI      |
| GE   | HIST 308 | History of World Civilizations, 1500 to Present                          | 3    | I       |

## TRANSFER PATH

### Potential Transfer Majors:

- Biotechnology B.S.
- Biology B.S.
- Microbiology B.S.
- Cell & Molecular Biology B.S.
- Plant Biology B.S.

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

- A bachelor's degree in Biology or Biotechnology opens doors to many careers in the biosciences.

### Advising Notes:

- This roadmap is designed for students preparing to transfer into a traditional biology degree program. There is another roadmap for students preparing for direct employment.
- This map starts with CHEM 400, which has prerequisites. Please [see a counselor](#) to add in prerequisite courses, if needed.

### Scheduling Notes:

- BIOT 307 and 311 are offered as 1<sup>st</sup> -8-week classes.
- BIOT 305 and 312 are offered as 2<sup>nd</sup> -8-week classes.

### Other Notes to Students Preparing to Transfer:

- The chemistry and biology courses in this roadmap align with the requirements of many traditional

| CAT. | COURSE                      | TITLE                                     | UNIT | GE AREA |
|------|-----------------------------|---|------|---------|
| GE   | POLS 301 / 481 <sup>H</sup> | Introduction to Government: United States | 3    | Va      |
| GE   | POLS 310                    | Introduction to International Relations   | 3    | Vb      |

#### 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 |
| Req  | Required Core       | A course that is required for this program   |
| 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             |

### Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

**MC** = Math Competency

**WC** = Writing Competency

biology degree programs, for students planning to transfer.

- Additional coursework may be necessary to transfer. Other requirements may include courses such as calculus (MATH 355 or 400), physics (PHYS 350 and 360), and organic chemistry (CHEM 420 and 421, or CHEM 423).
- See [ASSIST.ORG](https://assist.org) for the transfer requirements of the institution to which you plan to transfer.

### Honors Courses (H):

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