



# Biology A.S. Degree

What do Ebola, hemophilia, DNA fingerprinting, sequoias, cuttlefish, intertidal zones, and global climate change have in common? These are a few examples of the diverse topics explored in Biology, which is the scientific study of living organisms, including their structure, function, evolution, and interactions with other organisms and the environment.

**Total Units: 64**

## First Year

### Semester 1

16 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*	GE AREA
<b>CHEM 400</b> <sup>Z</sup> General Chemistry I	5	Elementary Algebra and CHEM 300, 305, 309 or 1 yr of HS Chem with Lab	F, S, Su	CRC Area IV
<b>MATH 400</b> <sup>1</sup> <sup>Z</sup> Calculus I	5	MATH 370	F, S	CRC Area II(b)
<b>CRC Area II(a)-Writing Competency</b> <sup>Z</sup>	3	Recommend meeting with a counselor	F, S, Su	CRC Area II(a)
<b>CRC Area III(b)-Life Development Skills</b> <sup>Z</sup>	3		F, S, Su	CRC Area III(b)

<sup>Z</sup> At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

<sup>1</sup> Or MATH 355 or MATH 356.

### Semester 2

18 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*	GE AREA
<b>BIOL 400</b> <sup>Z</sup> Principles of Biology	5	CHEM 400 or 305 and MATH 120; Advisory: Eligibility for ENGWR 300	F, S	CRC Area IV
<b>MATH 401</b> <sup>1</sup> <sup>Z</sup> Calculus II	5	MATH 400	F, S	CRC Area II(b)
<b>CHEM 401</b> <sup>Z</sup> General Chemistry II	5	CHEM 400		
<b>CRC Area I-Humanities</b> <sup>Z</sup>	3		F, S, Su	CRC Area I

## Career

### Options/Outlook:

Biologists research or study the basic principles of plant and animal life, such as origin, relationship, development, anatomy, and functions. Tasks may include collecting and analyzing biological data about relationships among and between organisms and their environment; prepare technical and research reports, such as environmental impact reports, and communicate the results to individuals in industry, government, or the general public. **Career opportunities require more than an associate degree.**

### A sample of reported job titles:

Aquatic Biologist, Aquatic Scientist, Biological Scientist, Biologist, Botanist, Horticulturist, Marine Biologist, Research Biologist, Research Scientist, Scientist

### Projected job openings nationally (2020-2030):

1,640

### Projected growth nationally (2020-2030):

21% growth

### Median Salary in California with

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<sup>1</sup> Or MATH 400 (if MATH 355 or 356 were taken in Semester 1)

## Year 2

### Semester 3

14 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*	GE AREA
<b>BIOL 410</b> <b>Z</b> Principles of Botany	5	BIOL 400; Advisory: Eligibility for ENGWR 300	F, S	CRC Area IV
<b>CHEM 420</b> <b>Z</b> Organic Chemistry I	5	CHEM 401	F, S	
<b>CRC Area VI-Ethnic/ Multicultural Studies</b> <b>Z</b>	3		F, S, Su	CRC Area VI
<b>CRC Area III(a)- Physical Edu Activity</b> <b>Z</b>	1		F, S, Su	CRC Area III(a)

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### Semester 4

16 Units

COURSE	UNITS	PRE-REQS <sup>^</sup>	SEMESTERS OFFERED*	GE AREA
<b>BIOL 420</b> <b>Z</b> Principles of Zoology	5	BIOL 400; Advisory: Eligibility for ENGWR 300	F, S	CRC Area IV
<b>CHEM 421</b> <b>Z</b> Organic Chemistry II	5	CHEM 420	F, S	
<b>CRC Area V(b)-Social &amp; Behavioral Sciences</b> <b>Z</b>	3		F, S, Su	CRC Area V(b)
<b>CRC Area V(a)- American Institutions</b> <b>Z</b>	3		F, S, Su	CRC Area V(a)

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## advanced degree (2021):

\$97,260/yr

### Source:

<https://www.onetonline.org/link/summary/19-1020.01>

### Transfer notes:

Please meet with a counselor for specific transfer course evaluation or transferring to a specific 4-year institution.

## General Education (GE):

Non-specified GE courses identified by CRC Area, CSU Area or IGETC Area without pre- or co-requisite can be taken at any semester.

## Honors option:

The CRC Honors Program is designed specifically for academically accomplished students and for students with the potential for high achievement. Students who complete 15 units or more in honors-designated courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities.

## About this map:

This program map 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 map is not a guarantee of course availability or financial aid applicability.

## Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with

^You must have passed the prerequisite course(s) with a "C" or better; Corequisite must be taken during the same semester; Advisory means it is recommended but not required to enroll in the course.

\*(O) = online available (P) = partially online

students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

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