

# CERRITOS COLLEGE

## BIOLOGY

### TRANSFER PREPARATION

**IMPORTANT NOTICE:** The requirements listed for the major are subject to change without notice. It is the student's responsibility to check for the most recent information with a Cerritos College counselor or by consulting ASSIST at [www.assist.org](http://www.assist.org). **NOTE:** Courses listed may require prerequisite coursework.

#### COMMON LOWER DIVISION MAJOR PREPARATION FOR CALIFORNIA STATE UNIVERSITY

			UNITS
BIOL	200	Principles of Biology	5
BIOL	201	Principles of Biology	5
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
PHYS	101	General Physics	4
PHYS	102	General Physics	4

#### ADDITIONAL LOWER DIVISION MAJOR PREPARATION FOR SPECIFIC TRANSFER INSTITUTIONS

##### California State Polytechnic University – Pomona

There are six areas of emphasis within the Biology major: "Integrative Biology", "Botany", "Genetics and Molecular Cell Biology", "Microbiology", "Neuroscience and Physiology", and "Zoology"

ENGL	100	Freshman Composition	4
ENGL	102	Freshman Composition and Literature	3
<b>or</b> ENGL	103	Critical and Argumentative Writing	(3)
<b>or</b> PHIL	106	Introduction to Logic	(3)
MATH	116	Calculus for Managerial, Biological and Social Sciences	4
<b>or</b> MATH	170	Analytical Geometry and Calculus I	(4)

**NOTE: PHYS 201 & 202 may substitute for PHYS 101 & PHYS 102.**

**American Cultural Perspectives Requirement (3 units):** Please see a counselor or refer to [www.assist.org](http://www.assist.org) for a list of courses that satisfy this requirement.

##### California State University – Dominguez Hills

CSUDH offers a Biology B.A. degree and a Biology, B.S. degree. There are three options within the Biology B.S. degree: "Cellular & Molecular Biology", "Ecology & Environmental Biology", and "Microbiology".

BIOL	202	Molecular Biology/Genetics	4
MATH	112	Elementary Statistics	4
MATH	170**	Analytical Geometry and Calculus I	4
<b>or</b> MATH	116	Calculus for Managerial, Biological and Social Sciences	(4)

\*\*Required for B.S. Degree only.

**NOTE: PHYS 201 & 202 & PHYS 203 may substitute for PHYS 101 & PHYS 102 for the B.S. Degree.**

**Cerritos College – Biology – Revised Spring 2020**  
**11110 Alondra Blvd., Norwalk, CA 90650**

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#### California State University – Fullerton

**There are four concentrations within the Biological Science Major:**

*“Cell & Developmental Biology”, “Ecology & Evolutional Biology”, “Marine Biology, Molecular Biology & Biotechnology”, and Plant Biology”.*

CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
MATH	116	Calculus for Managerial, Biological and Social Sciences	4
<b>or</b>	MATH 170	Analytical Geometry and Calculus I	(4)
<b>and</b>	MATH 190	Analytical Geometry and Calculus II	4

#### California State University – Long Beach

This CSULB major has “major-specific admission requirements” which means that CSULB will require the specified courses to be completed for admission if a student is not completing an AAT or AST in the major. These criteria will be used for Fall 2020 and Spring 2021 admission consideration. Admission criteria are subject to change for future admission cycles. If a major is highly impacted, it will be noted in the description of each major and additional supplemental criteria and requirements are indicated in the major specific details. See your counselor for more information. Here is the link:

[www.csulb.edu/admissions/fall-2019-major-specific-requirements-transfer-students](http://www.csulb.edu/admissions/fall-2019-major-specific-requirements-transfer-students).

#### GENERAL OPTION

CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
MATH	116	Calculus for Managerial, Biological and Social Sciences	4
<b>or</b>	MATH 170	Analytical Geometry and Calculus I	(4)

#### OPTION IN BIOLOGY EDUCATION

CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
ESCI	110	Introduction to Earth Science	4
<b>or</b>	GEOL 101	Physical Geology	(4)
MATH	116	Calculus for Managerial, Biological and Social Sciences	4
<b>or</b>	MATH 170	Analytical Geometry and Calculus I	(4)
MICR	200	Principles and Applications of Microbiology	5

#### OPTION IN MOLECULAR CELL BIOLOGY & PHYSIOLOGY

CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
MATH	116	Calculus for Managerial, Biological and Social Sciences	4
<b>or</b>	MATH 170	Analytical Geometry and Calculus I	(4)

#### OPTION IN ORGANISMAL BIOLOGY

CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5

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#### California State University – Long Beach (cont.)

MATH	116	Calculus for Managerial, Biological and Social Sciences	4
or MATH	170	Analytical Geometry and Calculus I	(4)

**NOTE: PHYS 201 & PHYS 202 may substitute for PHYS 101 & PHYS 102 for any of the Biology options offered at CSULB.**

#### California State University – Los Angeles

This CSULA major has “major-specific admission requirements” which are focused on transfer student preparation that predicts success in the major and promotes timely degree completion. The criteria below reflect the current criteria as well as changes that will be used for the Fall 2020 admission cycle. The criteria listed will be reviewed annually for future admission cycles. For Fall term admission, coursework must be completed no later than the prior Spring term. For Spring term admission, coursework must be completed no later than the prior Summer term. Here is the link: [www.calstatela.edu/admissions/major-specific-criteria](http://www.calstatela.edu/admissions/major-specific-criteria).

CHEM	211	Organic Chemistry	5
MATH	170	Analytical Geometry and Calculus I	4
MATH	190	Analytical Geometry and Calculus II	4

**Diversity Requirement (6 units):** Please see a counselor or refer to [www.assist.org](http://www.assist.org) for a list of courses that satisfy this requirement.

#### PATHWAY COURSES FOR BIOLOGY MAJOR FOR UNIVERSITY OF CALIFORNIA

If you're a California community college student and know which major you want to study, you can follow one of the UC Transfer Pathways to start preparing for your major and keep your UC campus options open. The Transfer Pathway offers a single set of courses you can take that will transfer to any of the nine UC undergraduate campuses. This site shows you which UC transferable courses from ASSIST (<http://www.assist.org>) meet the specific course expectations for a given Pathway. Subsequent changes can occur at any time; please return to this page periodically for the most current information.  
<http://pathwaysguide.universityofcalifornia.edu/college-pathways/0/0>.

Following a Transfer Pathway does not guarantee admission to UC. Admission to different UC campuses and majors varies in competitiveness depending on how many students apply and how many slots are available. As a result, the minimum GPA and grade requirements for particular courses may vary from campus to campus. Make sure to look on the campus admissions websites

(<http://admission.universityofcalifornia.edu/campuses/index.html> to find minimum expected grade point averages for the major you are interested in.  
<http://pathwaysguide.universityofcalifornia.edu/college-pathways/0/0>

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#### California State University – Los Angeles (cont.)

BIOL	200	Principles of Biology	5
BIOL	201	Principles of Biology	5
CHEM	111	General Chemistry	5
CHEM	112	General Chemistry	5
CHEM	211	Organic Chemistry	5
CHEM	212	Organic Chemistry	5
MATH	170	Analytical Geometry and Calculus I	4
MATH	190	Analytical Geometry and Calculus II	4

#### ADDITIONAL LOWER DIVISION MAJOR PREPARATION FOR SPECIFIC TRANSFER INSTITUTIONS

##### University of California – Irvine

**UCI offers a Biological Sciences B.S. degree and a Biology/Education B.S. degree.**

BIOL	202	Molecular Biology/Genetics	4
PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

***Instead of Math 190 students can take:***

MATH	112	Elementary Statistics	(4)
<b>or</b> MATH	250	Linear Algebra and Differential Equations	(5)
<b>or</b> PSYC	210	Elementary Statistics	(4)

##### University of California – Los Angeles

PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4
PSYC	210	Elementary Statistics	4
BIOL	120	Introduction to Biological Science	4
<b>or</b> ZOOL	120	Introduction to Animal Biology	(4)

##### University of California – Riverside

PHYS	201	Engineering Physics	4
PHYS	202	Engineering Physics	4
PHYS	203	Engineering Physics	4

IGETC (Intersegmental General Education Transfer Curriculum) is not accepted for majors housed in the College of Natural and Agricultural Sciences. Courses taken for IGETC will be applied to the College's breadth pattern as appropriate. Transfer students who wish to supplement their math and science preparation with humanities or social science courses are encouraged to follow the College of Natural and Agricultural Sciences breadth pattern. Please visit "GE Areas – Transfer Institution for the complete list of required GE/Breadth Articulation Agreement.

# **CERRITOS COLLEGE BIOLOGY TRANSFER PREPARATION**

## **University of California – Riverside (cont.)**

UCR offers a Biology B.A. degree and a Biology B.S. degree. Students pursuing a B.A. degree in Biology will also need to complete the equivalent of 4<sup>th</sup> quarter proficiency (generally 3<sup>rd</sup> semester) in a language other than English, as part of the breadth requirements for this degree.

## **CAREER OPPORTUNITIES:**

The Bachelor's degree programs with an emphasis in Biology are designed to qualify the student to enter graduate schools, to enter teaching at the secondary level, and are appropriate for some applied work in laboratories, federal employment, state civil service and the pharmaceutical industry.