

B.A. in BIOLOGICAL SCIENCES (AY 2023-2024) CONCENTRATION IN BIOLOGICAL EDUCATION (77-80 units)

CORE REQUIREMENTS (45-47 units)

Lower Division BIOL Courses	Units	Offered	Prerequisites
BIOL 140A <i>Principles of Cell & Molecular Biology</i>	5	Fall & Spring	
BIOL 140B <i>Principles of Organismal Biology</i>	5	Fall & Spring	BIOL 140A*
subtotal	10		
Lower Div Physical Science & Math Courses	Units	Offered	Prerequisites
CHEM 111 <i>Gen Chem I</i> & CHEM 111L <i>Gen Chem Lab</i>	3, 2	Fall & Spring	MATH 120(25) or 130
CHEM 112 <i>General Chemistry II</i>	5	Fall & Spring	CHEM 111 & 111L*
CHEM 230 <i>Survey of Organic Chemistry</i>	5	Fall	CHEM 112*
GEOL 100 <i>Earth Systems Science</i>	4	Fall & Spring	
MATH 115E <i>College Algebra with Support</i>	3	Fall & Spring	None
MATH 120 <i>Precal. or MATH 125 Precal. with Algebra</i>	3 (5)	Fall & Spring	MATH 115 or 115E
PHYS 115 <i>Elementary Physics</i>	3		None
subtotal	28-30		
Upper Division BIOL Courses	Units	Offered	Prerequisites
BIOL 310 <i>Genetic Analysis I</i>	4	Fall & Spring	BIOL 140B*
BIOL 320 <i>Evolutionary Biology</i>	3	Fall & Spring	BIOL 310*
subtotal	7		

CONCENTRATION REQUIREMENTS (32-33 units)

Upper Division BIOL Courses	Units	Offered	Prerequisites
BIOL 330 <i>General Microbiology</i>	5	Fall	BIOL 140B*
BIOL 350 <i>Ecology</i>	4	Fall & Spring	BIOL 140B*, MATH 115, STATS 303
BIOL 370 <i>Animal Physiology</i>	4	Fall & Spring	BIOL 140B*, CHEM 112*
Any TWO upper division BIOL electives (no more than 2 units of BIOL 490 or 498)	6	Fall & Spring	BIOL 140B*
subtotal	19		

Upper Division Teacher Ed & Stats Courses

	Units	Offered	Prerequisites
PHIL 371 <i>Philosophy of Education</i>	3	Intermittent	
SCI 308 <i>Hands on Science Teaching</i>	1	Fall	
STATS 303 <i>Statistical Methods in Biology</i>	3	Fall & Spring	
TED 301 <i>Introduction to Education</i>	3	Fall	
subtotal	10		

Capstone Course (choose ONE of the following)

	Units	Offered	Prerequisites
TED 302 <i>Introduction to Teaching</i>	3	Spring	TED 301
BIOL 426 <i>Advanced Molecular and Cell Biology</i>	3	Spring	BIOL 310*
BIOL 430 <i>Microbial Physiology and Metabolism</i>	3	Spring	BIOL 330*, CHEM 340
BIOL 469 <i>Conservation Biology</i>	4	Spring	BIOL 350*
BIOL 488 <i>Environmental Physiology</i>	3	Fall	BIOL 370*
subtotal	3-4		

Students interested in becoming teachers should check out the [CSUEB Math & Science Teacher \(MAST\) Program](#).

* Must pass this prerequisite course with a C- or better to move onto the next course.

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- FOR MAJOR (B.A., Biology Ed) ADVISING: Dr. Erica Wildy (erica.wildy@csueastbay.edu), Dr. Brian Perry (brian.perry@csueastbay.edu), or Avel Perez (avel.perez@csueastbay.edu).

DEGREE: B.A. in Biological Science (AY 2023-24)
CONCENTRATION: Biology Education

Graduation Semester: _____

Name (Last, First): _____

Net ID: _____

LOWER DIVISION CORE BIOLOGY COURSES

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	TES Verification
BIOL 140A	_____	_____	5	_____	_____	_____
BIOL 140B	_____	_____	5	_____	_____	_____

LOWER DIVISION CORE PHYSICAL SCIENCE AND MATH COURSES

CHEM 111	_____	_____	3	_____	_____	_____
CHEM 111L	_____	_____	2	_____	_____	_____
CHEM 112	_____	_____	5	_____	_____	_____
CHEM 230	_____	_____	5	_____	_____	_____
GEOL 100	_____	_____	4	_____	_____	_____
MATH 115(E)	_____	_____	3	_____	_____	_____
MATH 120	_____	_____	3	_____	_____	_____
MATH 125	_____	_____	5	_____	_____	_____
PHYS 115	_____	_____	3	_____	_____	_____

UPPER DIVISION CORE BIOLOGY COURSES

BIOL 310	_____	_____	4	_____	_____	_____
BIOL 320	_____	_____	3	_____	_____	_____

UPPER DIVISION CONCENTRATION BIOLOGY COURSES

BIOL 330	_____	_____	5	_____	_____	_____
BIOL 350	_____	_____	4	_____	_____	_____
BIOL 370	_____	_____	4	_____	_____	_____

UPPER DIVISION CONCENTRATION BIOLOGY ELECTIVES (6 units minimum, including up to 2 units of Independent Study)

_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

ADDITIONAL UPPER DIVISION CONCENTRATION COURSES

PHIL 371	_____	_____	3	_____	_____	_____
SCI 308	_____	_____	1	_____	_____	_____
TED 301	_____	_____	3	_____	_____	_____
STAT 303	_____	_____	3	_____	_____	_____

CAPSTONE COURSE (ONE of the following)

TED 302	_____	_____	3	_____	_____	_____
BIOL 426	_____	_____	3	_____	_____	_____
BIOL 430	_____	_____	3	_____	_____	_____
BIOL 469	_____	_____	4	_____	_____	_____
BIOL 488	_____	_____	3	_____	_____	_____

Total Units for Concentration: (77 min.)_____

Note: A C- or better required in all courses that serve as a prerequisite.