

B.A. in BIOLOGICAL SCIENCES (AY 2026-2027)
CONCENTRATION IN BIOLOGY EDUCATION (75 units)

CORE COURSE REQUIREMENTS (53 units)

LOWER DIVISION COURSEWORK	UNITS	OFFERED	PREREQUISITES
BIOL 140A <i>Principles of Cell & Molecular Biology</i>	5	Fall & Spring	N/A
BIOL 140B <i>Principles of Organismal Biology</i>	5	Fall & Spring	BIOL 140A*
CHEM 111 & 111L <i>General Chemistry I (Lec & Lab)</i>	5	Fall & Spring	MATH 120(25) or 130 (co-)
CHEM 112 & 112L <i>General Chemistry II (Lec & Lab)</i>	5	Fall & Spring	CHEM 111* & 111L*
CHEM 230 <i>Survey of Organic Chemistry</i>	5	Fall	CHEM 112* & 112L*
EESC 100 <i>Earth System Sciences</i>	4	Fall & Spring	N/A
MATH 120 <i>Precalculus</i> (MATH 125 acceptable alt)	3	Fall & Spring	MATH 115E (C- or better)
PHYS 115 <i>Elementary Physics</i>	3	Fall & Spring	N/A
subtotal	35		
UPPER DIVISION COURSEWORK	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*
BIOL 350 <i>Ecology</i>	4	Fall & Spring	BIOL 140B*
BIOL 370 <i>Animal Physiology</i>	4	Fall & Spring	BIOL 140B*, CHEM 112*
CHEM 340 <i>Survey of Biochemistry</i>	3	Fall & Spring	CHEM 230* or 332*
subtotal	18		

CONCENTRATION COURSE REQUIREMENTS (22 units)

TEACHER EDUCATION & STATISTICS	UNITS	OFFERED	PREREQUISITES
STAT 303 <i>Statistical Methods in Biology</i>	3	Fall & Spring	completion of GE Area 2 or B4
PHIL 371 <i>Philosophy of Education</i>	3	Fall & Spring	completion of GE Area 2 or B4
SCI 308 <i>Hands-On Science Teaching</i>	1	Fall & Spring	Departmental Consent
TED 301 <i>Introduction to Education</i>	3	Fall & Spring	N/A
TED 302 <i>Introduction to Teaching</i>	3	Spring only	TED 301
subtotal	13		
ELECTIVES (<i>Select 9 units from the list below</i>)	UNITS	OFFERED	PREREQUISITES
BIOL 315 <i>Marine Biology</i>	4	Intermittently	BIOL 140B
BIOL 330 <i>Microbiology</i>	5	Fall	BIOL 140B (CHEM 112 & 112L coreq)
BIOL 352 <i>Biogeography</i>	4	Intermittently	BIOL 350
BIOL 368 <i>Fungi of California</i>	3	Every Other Fall	BIOL 140B
BIOL 402 <i>Preparation for Undergrad Instruction in Biology</i>	3	Intermittently	BIOL 140B (TED 301 recomm.)
BIOL 426 <i>Advanced Molecular and Cell Biology</i>	3	Spring	BIOL 310
BIOL 441 <i>Parasitology</i>	3	Fall	BIOL 310
BIOL 442 <i>Epidemiology</i>	3	Intermittently	BIOL 140B
BIOL 443 <i>Hematology</i>	4	Intermittently	BIOL 140B (CHEM 112 & 112L coreq)
BIOL 445 <i>Immunology</i>	3	Fall & Spring	BIOL 310 (CHEM 230 or 332 recomm.)
BIOL 447 <i>Zoonoses & Emerging Infectious Diseases</i>	3	Spring	BIOL 140B (BIOL 320 recomm.)
BIOL 454 <i>Biology of Fungi</i>	3	Every Other Fall	BIOL 140B
BIOL 456 <i>Ornithology</i>	4	Intermittently	BIOL 140B
BIOL 466 <i>Population Biology</i>	4	Intermittently	BIOL 320
BIOL 469 <i>Conservation Biology</i>	4	Spring	BIOL 350
BIOL 471 <i>Neurobiology</i>	3	Intermittently	BIOL 370
BIOL 473 <i>Comparative Physiology</i>	3	Intermittently	BIOL 370
BIOL 474 <i>Biomedical Physiology</i>	3	Intermittently	BIOL 370
BIOL 475 <i>Global Climate Change</i>	4	Spring	BIOL 370
BIOL 488 <i>Environmental Physiology</i>	3	Fall & Spring	BIOL 370
BIOL 497 <i>Issues in Biological Science</i>	1-3	Fall	BIOL 140B
subtotal	9		

Notes: *BIOL 490 Independent Study, BIOL 493 Directed Research in Biology, BIOL 498 Internship* or a combination of one or two of these courses may be used for a max of 3 units of elective credit. *BIOL 300W, 333, 334, & 335 cannot be taken for major credit.*

* All courses must be passed with a C- or better.

‡ When it is offered, it will be in the Spring term. When it isn't offered, students can enroll for BIOL 602 as an acceptable alternative.

• **Biology Ed Concentration & GE Advisors:** Mr. Avel Perez or Dr. Kelley Gove (cscstudentcenter@csueastbay.edu)

• **Biology Education Concentration Career & Course Sub Advisor:** Dr. Erica Wildy (erica.wildy@csueastbay.edu)

CONCENTRATION: Biology Education

Graduation Semester: _____

Name (Last, First): _____

Net ID: _____

CORE REQUIREMENTS – LOWER DIVISION COURSES

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	TES Verification
BIOL 140A			5	.....	.....	.....
BIOL 140B			5	.....	.....	.....
CHEM 111			3	.....	.....	.....
CHEM 111L			2	.....	.....	.....
CHEM 112			3	.....	.....	.....
CHEM 112L			2	.....	.....	.....
CHEM 230			5	.....	.....	.....
EESC 100			4	.....	.....	.....
MATH 120			4	.....	.....	.....
PHYS 115			4	.....	.....	.....

CORE REQUIREMENTS – UPPER DIVISION COURSES

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	TES Verification
CHEM 340			3	.....	.....	.....
BIOL 310			4	.....	.....	.....
BIOL 320			3	.....	.....	.....
BIOL 350			4	.....	.....	.....
BIOL 370			4	.....	.....	.....

CONCENTRATION REQUIREMENTS – TEACHER ED & STATISTICS

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	TES Verification
STAT 303			3	.....	.....	.....
PHIL 371			3	.....	.....	.....
SCI 308			1	.....	.....	.....
TED 301			3	.....	.....	.....
TED 302			3	.....	.....	.....

CONCENTRATION REQUIREMENTS - ELECTIVES *(At least 9 units of upper division major biology courses)*

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	TES Verification
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Total Units for Concentration: (75 min.) _____

Note: A C- or better required in all required courses.