

**B.S. in BIOLOGICAL SCIENCE  
CONCENTRATION IN PHYSIOLOGY (AY 2020-2021)**

**Core Requirements (39 units)**

<i>Lower Division BIOL Courses</i>	<i>Units</i>
BIOL 140A Principles of Cell & Molecular Biology	5
BIOL 140B Principles of Organismal Biology	5
<b>subtotal</b>	<b>10</b>

<i>Lower Division Physical Science and Math Courses</i>	<i>Units</i>
CHEM 111, 112 General Chemistry I & II (5, 5)	10
MATH 130 Calculus I	4
PHYS 125, 126 Principles of Physics I & II (4, 4)	8
<b>subtotal</b>	<b>22</b>

<i>Upper Division BIOL Courses</i>	<i>Units</i>
BIOL 310 Genetic Analysis I	4
BIOL 320 Evolutionary Biology	3
<b>subtotal</b>	<b>7</b>

**Concentration Requirements (36 units)**

<i>Upper Division BIOL Courses</i>	<i>Units</i>
BIOL 370 Animal Physiology	4
BIOL 488 Environmental Physiology*	3
<b>subtotal</b>	<b>7</b>

<i>Physical Science and Statistics Courses</i>	<i>Units</i>
CHEM 230 Survey of Organic Chemistry <sup>†</sup>	5
CHEM 340 Survey of Biochemistry <sup>†</sup>	3
STAT 303 Statistical Methods in Biology	3
<b>subtotal</b>	<b>11</b>

<sup>†</sup>*Note: If the student career objective requires a year of organic chemistry and/or a year of biochemistry, then enroll in CHEM 331 & 332, and CHEM 441 & 442; enrollment in CHEM 441 requires a minimum C- in CHEM 332. A maximum of 5 units credit for the organic chemistry requirement and a maximum 3 units credit for the biochemistry requirement will apply to this concentration curriculum.*

**Electives (select at least 18 units from the list of courses below)**

*Note: BIOL 490 Independent Study and/or BIOL 498 Internship may be used for a maximum total of 3 units of elective credit. Enrollment in these courses requires approval by a faculty member and the Department Chair.*

<u>Course</u>	<u>Units</u>	<u>Offered</u>	<u>Prerequisites</u>
BIOL 330 General Microbiology	5	Fall	BIOL 140B
BIOL 350 Ecology	4	Fall & Spring	BIOL 140B
BIOL 430 Microbial Physio. & Metab.	3	Spring	BIOL 330, CHEM 340 or 441
BIOL 440 Molecular Virology	3	Fall	BIOL 310
BIOL 441 Parasitology	3	Fall	BIOL 310
BIOL 443 Hematology	4	Fall	BIOL 140B, CHEM 112
BIOL 445 Immunology	3	Fall & Spring	BIOL 310, CHEM 332
BIOL 470 Animal Senses	4	Fall (every other year)	BIOL 370
BIOL 471 Neurobiology	3	TBD	BIOL 370
BIOL 472 Neurobiology Lab	4	TBD	BIOL 471
BIOL 473 Comparative Physiology	3	TBD	BIOL 370
BIOL 474 Biomedical Physiology	3	Spring (every other year)	BIOL 370 or BIOL 270 & 271
BIOL 475 Global Change Biology	4	Spring	BIOL 370
BIOL 476 General Endocrinology	3	Fall	BIOL 370

\*Capstone course for the *Physiology* concentration

FOR GENERAL MAJOR ADVISING: <http://www.csueastbay.edu/csci-ssc/index.html>, [cscistudentcenter@csueastbay.edu](mailto:cscistudentcenter@csueastbay.edu)

FOR PHYSIOLOGY-SPECIFIC ADVISING: Dr. Tyler Evans, [tyler.evans@csueastbay.edu](mailto:tyler.evans@csueastbay.edu), Dr. Jim Murray, [james.murray@csueastbay.edu](mailto:james.murray@csueastbay.edu)

**DEGREE:** B.S. in Biological Sciences (AY 2020-21)

**CONCENTRATION:** Physiology

Graduation Semester: \_\_\_\_\_

Name (Last, First): \_\_\_\_\_

Net ID: \_\_\_\_\_

**CORE REQUIREMENTS**

Course	Grade	Semester & Year	Units	College/University Where Equivalent Course Was Taken	Equivalent Course Number	Assist.org Verification
CHEM 111	.....	.....	5	.....	.....	.....
CHEM 112	.....	.....	5	.....	.....	.....
PHYS 125	.....	.....	4	.....	.....	.....
PHYS 126	.....	.....	4	.....	.....	.....
MATH 130	.....	.....	4	.....	.....	.....
BIOL 140A	.....	.....	5	.....	.....	.....
BIOL 140B	.....	.....	5	.....	.....	.....
BIOL 310	.....	.....	4	.....	.....	.....
BIOL 320	.....	.....	3	.....	.....	.....

**CONCENTRATION REQUIREMENTS**

CHEM 230	.....	.....	5	.....	.....	.....
CHEM 340	.....	.....	3	.....	.....	.....
STATS 303	.....	.....	3	.....	.....	.....
BIOL 370	.....	.....	4	.....	.....	.....
BIOL 488	.....	.....	3	.....	.....	.....

**ELECTIVES** (at least 18 units from the courses below)

BIOL 330	.....	.....	5	.....	.....	.....
BIOL 350	.....	.....	4	.....	.....	.....
BIOL 430	.....	.....	3	.....	.....	.....
BIOL 440	.....	.....	3	.....	.....	.....
BIOL 441	.....	.....	3	.....	.....	.....
BIOL 443	.....	.....	4	.....	.....	.....
BIOL 445	.....	.....	3	.....	.....	.....
BIOL 470	.....	.....	4	.....	.....	.....
BIOL 471	.....	.....	3	.....	.....	.....
BIOL 472	.....	.....	4	.....	.....	.....
BIOL 473	.....	.....	3	.....	.....	.....
BIOL 474	.....	.....	3	.....	.....	.....
BIOL 475	.....	.....	4	.....	.....	.....
BIOL 476	.....	.....	3	.....	.....	.....

Total Units for Concentration: (75 min.) \_\_\_\_\_

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

Advisor Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Dept. Chair Signature: \_\_\_\_\_

Date: \_\_\_\_\_