

QUANTITATIVE BIOLOGY AND BIostatISTICS MINOR

- This worksheet is intended for supplemental use only. The University will use your [Academic Requirements Report \(ARR\)](#) to track your graduation requirements, including those for your minor. Please continue to check your ARR for accuracy. If your ARR requires a correction, please submit an [ARR Correction Form](#).
- Your [Degree Planner](#) will display the following requirements in the University’s recommended sequence.
- All courses used for the minor must be completed with a grade of C (2.0) or higher.
- The minor must contain at least 6 units beyond those used for major requirements and other minors (APC 265-03).
- All non-articulated courses MUST be reviewed and approved by a faculty advisor.
- Students are advised that some courses have prerequisites and should plan courses accordingly.
- At least 15 units must be at the upper-division level.
- At least 6 upper-division units must be completed at CSUSM.

LOWER-DIVISION COURSEWORK (7-9 UNITS)

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>	BIOL 215: Experimental Design & Statistical Analysis	4

Select 1 course from the following:

(Students interested in pursuing a graduate degree in biostatistics should take MATH 160, as well as MATH 162 and MATH 264)

MATH 150: Calculus for the Life Sciences (*MATH 125, 126 or pass Calculus Readiness Diagnostic)

MATH 160: Calculus with Applications, I (*MATH 125, 126 or pass Calculus Readiness Diagnostic)

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>		3-5

UPPER-DIVISION COURSEWORK (6 UNITS)

Computing:

Select 1 course from the following:

BIOL 365: Computing Skills for Biologists (3) (*BIOL 211, 215)

CS 321: Programming for Data Science (3) (*GE Area B4)

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>		3

Modeling:

Select 1 course from the following:

BIOL 535: Ecological Modeling (3) (*BIOL 354)

MATH 448: Mathematical Models and Methods in Biology (3)

<input checked="" type="checkbox"/>	Course	Units
<input type="checkbox"/>		3

UPPER-DIVISION ELECTIVES (9 UNITS)

Select 3 courses from the following:

BIOL 365#: Computing Skills for Biologists (3) (*BIOL 211, 215)

BIOL 420: Ecological Monitoring (4) (*BIOL 215, 354)

BIOL 502: Population Genetics (5) (*BIOL 352)

BIOL 531%: Biological Data Analysis I (3) (*BIOL 215 with a grade of B or higher or instructor consent)

BIOL 532%: Biological Data Analysis II (3) (*BIOL 215 with a grade of B or higher or instructor consent)

BIOL 533: Geographic Information Systems Applications in Landscape Ecology (4) (*BIOL 354)

*prerequisite; #If not taken to satisfy one of the upper-division required courses for the minor;

%students interested in pursuing a graduate degree in biostatistics should take at least one advanced statistics class.

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BIOL 535#: Ecological Modeling (3) (*BIOL 354)

MATH 448#: Mathematical Models and Methods in Biology (3)

PHYS 440: Biological Physics (3) (*PHYS 202 or 206)

Other courses may be approved with Biology faculty approval.

✓	Course	Units

*prerequisite; #If not taken to satisfy one of the upper-division required courses for the minor;

%students interested in pursuing a graduate degree in biostatistics should take at least one advanced statistics class.