CATALOG TERM: 2016-2024 **TOTAL UNITS REQUIRED = 32-33**

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 (in mycsusm.edu) 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.
- 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 15-16 units must be at the upper-division level. At least 6 upper-division units must be completed at CSUSM.
- At least 9-10 upper-division units must be exclusive to the minor; i.e. not double-counted for the major and minor.

LOWER-DIVISION COURSEWORK (17 UNITS)

✓	Course	Units
	BIOL 210: Introduction to Cellular and Molecular Biology (+CHEM 150)	4
	BIOL 211: Introduction to Organismal & Population Biology (*BIOL 210)	4
	BIOL 215: Experimental Design & Statistical Analysis	4
	MATH 160: Calculus with Applications, I (*MATH 125, 126 or MATH Placement Exam)	5

UPPER-DIVISION COURSEWORK (6 UNITS)

Computing:

Select 1 course from the following:

BIOT 358: Computer Skills for Biotechnology (3) (+CS 111)
BIOL 365: Computing Skills for Biologists (3) (*BIOL 211, 215)

✓	Course	Units
		3

Modeling:

Select 1 course from the following:

BIOL 535: Ecological Modeling (3) (*BIOL 354)
MATH 448: Mathematical Models and Methods in Biology (3)

✓	Course	Units
		3

Elective Courses (9-10 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 – Linear Models (3) (*BIOL 215)
BIOL 532: Biological Data Analysis II – Multivariate Analysis (3) (*BIOL 215)
BIOL 533: Geographic Information Systems Applications in Landscape Ecology (4) (*BIOL 354)
BIOL 535#: Ecological Modeling (3) (*BIOL 354)
BIOT 358#: Computer Skills for Biotechnology (3) (+CS 111)
MATH 448#: Mathematical Models and Methods in Biology (3)
PHYS 440: Biological Physics (3) (*PHYS 202 or 206)

✓	Course	Units

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