

REQUIREMENTS FOR THE BIOLOGICAL SCIENCES (BIS) MAJOR

In **addition** to adhering to the UC Merced and School of Natural Sciences requirements, the additional requirements that must be met to receive the B.S. in Biological Sciences at UC Merced are:

Biological Sciences Requirements (59-64 units): The Biological Sciences major consists of 16 courses (5 lower division and 11 upper division) designed to give all students a common foundation of core knowledge specific to the discipline.

Lower Division Major Requirements

- Contemporary Biology (BIS 1)4 units
- Principles of Organic Chemistry (CHEM 8)4 units
- Principles of Physical Chemistry (CHEM 10)4 units
- Mathematical Biology (MATH 30) or
Calculus of a Single Variable II (MATH 22)4 units
- Introductory Physics II (PHYS 9)4 units

Upper Division Major Requirements

- Molecular Machinery of Life (BIS 100)4 units
- The Cell (BIS 110)4 units
- Genetics (BIS 140)4 units
- Evolution (BIS 141)4 units
- Mathematical Modeling for Biologists (BIS 180)4 units

Additional Upper Division Courses

- Research seminar (BIS 190)1 unit

- Research Projects in Biological Sciences (BIS 195)1-6 units
- One non-biology science or engineering course3-4 units

Upper Division - Emphasis Track

- One course with lab from emphasis track5 units
- Two additional courses from emphasis track8 units

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