



B.S. Biology Major Requirements

Lower Division - Complete one series for each subject

Chemistry : 14A 14B 14C 14D 14BL OR 20A 20B 20L 30A 30B 30AL

Life Science (LS) : 7A 7B 7C 23L

Math : LS30A LS30B OR 3A 3B 3C OR 31A 31B 32A

Statistics : LS40 OR Stats13

Physics : 5A 5B 5C OR 1A 1B 1C 4AL 4BL

Upper Division - Complete 2 course from each core principle for a total of 10 courses

*NOTE: Please review the Rules section for major course policies

Evolution & Genetics

Ecology & Evolutionary Biology 103, 108, 109, 109L, 110, 111, 112, 113A, 113AL, 114A, 115, 117, 118, 120 (or 185), 121, C126, 129, 130, C135, 136, 140, 144, M145 (same as EPSS M118), 149, 150, 160, 171, C174, CM173, 175, 181, 184, 185, 186
Anthropology 120, 124P, 124Q, 124S, 128P
Earth & Planetary Sciences 116
Life Science 107
Microbiology, Immunology, & Molecular Genetics CM156, 158
Molecular, Cell, & Developmental Biology 138, CM156
Society & Genetics M142

Select two courses

Information Flow

Ecology & Evolutionary Biology 100, 100L, 116, 120 (or 185), 121, 122, 125, C126, 129, 132*, 134B, C135, 136, 137, 149, 150, 153, 156, 162, 162L, 170, 171, C172, C174, 176, M178 (same as C&S BIOL M186), C179, 180A, 180B, 183
Anthropology 124P, 128P
Chemistry C100, 153A, 166
Life Science 107
Microbiology, Immunology, & Molecular Genetics 100L, 101, 103AL, 103BL, 109AL, 109BL, 123, 132, CM156, 158, C185A
Molecular, Cell, & Developmental Biology 100, 138, 143, 144, C150, 150AL, CM156, 165B, 168, M175A, M175B, M175C, 187AL
Neuroscience M101A, M101B, M101C, 102
Physiological Sciences M106, 111A, 111B, CM123, 124, C126, C127, 128, C130, 136, 138, M140, C144, M145, 146, 147, 149, C152, 154, 155, 165, 166, 167, 173, 174, 175, M176, 177, M180A, M180B, M180C

Select two courses

Transformations of energy and matter

Ecology & Evolutionary Biology 103, 109, 109L, 123A*, 123B*, 124A*, M131 (same as GEOG M117), M139, M151A, 153, 161, 162, 162L, 170, 184,
Atmospheric & Oceanic Sciences 102, 103, 104, M105, 130, 145
Chemistry 103, 110A, 110B, 114, C123A, C123B, 136, C143A, C143B, 144, C145, 153A, 153B, 153C, 153D, 153L, 154, C159, C164
Environmental Health Sciences 100
Microbiology, Immunology, & Molecular Genetics 101

Select two courses

* FMBQ/FBQ/MBQ Course

B.S. Biology Major Requirements

Structure Function

* FMBQ/FBQ/MBQ Course

Ecology & Evolutionary Biology 101, 102*, 103, 105, 106*, 107, 109, 109L, 110, 111, 112, 113A, 113AL, 113B*, 114A, 114B*, 115, 117, 118, 121, 122, 123A*, 123B*, 124A*, 125, M127, M127L, 128, 129, M131 (same as GEOG M117), 136, 140, 144, M145 (same as EPSS M118), 147, 148, 151A, 151B*, 152, 155, M157, 160, 161, 162, 162L, 163*, 164*, 165*, 166*, 170 (or PHYSCI 166), 171, C174, 181, 184

Chemistry C105, 153A, 153D, 153L

Earth & Planetary Sciences 116

Geography 108, 111, 112

Microbiology, Immunology, & Molecular Genetics 100L, 101, 103AL, 103BL, 109AL, 132, CM156, 158, 168, C185A

Molecular, Cell, & Developmental Biology 100, 138, M140, C141, 143, 144, 146, C150, 165A, 165B, 168, M175A, M175B, M175C

Neuroscience M101A, M101B, M101C, 102

Physiological Sciences 107, 108, 111A, 111B, 120, 121, 122, CM123, 124, C126, C127, 128, C130, 136, 138, M140, C144, M145, 146, 147, 149, C152, 153, 154, 155, 165, 166, 167, 173, 174, 175, M176, 177, M180A, M180B, M180C

Select two courses

Systems

* FMBQ/FBQ/MBQ Course

Ecology & Evolutionary Biology 101, 102, 105, 106*, 107, 108, 110, 111, 112, 113A, 113AL, 113B*, 114A, 114B*, 115, 116, 117, C119A, C119B, 120 (or 185), 122, 123A*, 123B*, 124A*, 124B*, 125, C126, M127, M127L, 128, 129, M131 (same as GEOG M117), 132*, 133, 136, 137, M139, 140, 142, 144, 147, 148, 149, 150, 151A, 151B*, 152, 153, 154, 155, 156, 160, 161, 162, 162L, 163*, 164*, 165*, 166*, 170, C172, 176, C177, M178 (same as C&S BIOL M186), C179, 180A (2 units), 180B, 182*, 183, 184

Anthropology 124P, 128P

Atmospheric & Oceanic Sciences 102, 103, 104, M105, 130, 145,

Biostatistics 100B

Chemistry 103, 153A, 153L

Environmental Health Sciences 100

Earth & Planetary Sciences 116

Geography 108, 111, 112

Life Science 107, M174

Microbiology, Immunology, & Molecular Genetics 100L, 101, 103AL, 103BL, 105, 109AL, 109BL, 123, 132, C134, 158, 168, 180A, 180B, C185A

Molecular, Cell, & Developmental Biology 100, 138, M140, C141, 143, 144, 146, C150, 150AL, CM156, 160, 165A, 165B, 168, M175A, M175B, M175C, 187AL

Neuroscience M101A, M101B, M101C, 102

Physiological Sciences 100, M106, 107, 108, 111A, 111B, 120, 121, 122, CM123, 124, C126, C127, 128, C130, M135, 136, 138, M140, C144, M145, 146, 147, 149, C152, 153, 154, 155, 165, 166, 167, 173, 174, 175, M176, 177, M180A, M180B, M180C

Psychology 115, 133B

Society & Genetics M142

Select two courses

Major Worksheet

Total:	/10
Of the 10 course above, <u>TWO</u> must be labs with one lab being from EEB (see chart below)	Lab 1. Lab 2.
Of the 10 course above, <u>FIVE</u> courses must be from the EEB department	1. 2. 3. 4. 5.

B.S. Biology Major Requirements**Courses that fulfill the lab requirement**

Ecology and Evolutionary Biology 100L, 101, 103, 109L, 110, 111, 112, 113AL, 114A, 115, 117, 128, 136, 144L, 150L, 162L, 170, CM174, 181

Earth & Planetary Science 116

Chemistry 114, 136, 144, 153L, 154

Molecular, Cell, and Developmental Biology 150AL, 160, 187AL

Microbiology, Immunology, & Molecular Genetics 100L, 103AL, 103BL, 105, 109AL, 109BL, 123

Neuroscience 102

Physiological Science 107, 108, 153, 166

Rules for Biology Major

- All Life Science Core Curriculum courses must be passed with a letter grade of C- or better and must be completed with an overall GPA of 2.00 (C) or better. Students receiving a grade below C- in three core curriculum courses, either in separate courses or repetitions of the same course, are ineligible to pursue the Biology major.
- For the upper division (UD) major requirements, you must pass each course with a letter grade of D- or better. However, in order to graduate, you are required to maintain a global GPA (UD major requirements) of 2.00 or better.
- A maximum of four (4) units of graduate work may be applied on the major, BUT only if approved by the department.
- Two courses from each Core Principle are required.
- Courses applied to the upper division (UD) major requirements may be applied to ONE Core Principle only. Courses listed in multiple categories MAY NOT be applied to multiple Core Principles simultaneously.
- Minimum of 5 Upper Division courses for the major must be taken within the EE BIOL Department.
- Minimum of 2 lab courses must be taken toward the degree, including a minimum of 1 Upper Division EE BIOL lab course.
- In order to receive lab credit for EEB 100L, 109L, 113AL, or 162L, the corresponding lecture course (EEB 100, 109, 113A, and 162, respectively) must be completed, either as a pre-requisite or as a co-requisite. The lecture course may be applied to a separate Core Principle.
- MIMG 101 + MIMG 100L - in order to receive lab credit for MIMG 100L, MIMG 101 must also be completed, either as a pre-requisite or as a co-requisite. However, MIMG 100L cannot be applied as a separate Core Principle since it is only three (3) units.

B.S. Biology Major Requirements

Rules for Biology Major

- Credit deductions: students cannot take the following pairs of courses:
 - o EE BIOL 120 & 185
 - o EE BIOL 170 & PHYSICI 166
 - o MCD BIOL 100 & 165A
- FBQ/MBQ instructors determine which Core Principles their courses will help complete Upper Division requirements for the major (4 requirements total).
- A maximum of four (4) units of EE BIOL 199 OR eight (8) units of EE BIOL 198A & 198B may be applied to the major. Credit for 199 courses from other departments may NOT be applied. NO EXCEPTIONS TO THIS POLICY.
- Each Primary Investigator (PI) will sign off on a form stating which Core Principle the student's research course should count for, after the student's work and quarter are completed. The research course must be for a minimum of 4 units.
- Each course applied toward the UD major requirements must have a minimum of four (4) units. Courses with fewer than four units may be combined to equal one (1) course equivalent, IF they are applicable to the major (e.g., EE BIOL 180, EE BIOL 188). Thus, two (2) courses worth 2 units each (for a total of 4 units) could equal one course requirement on the major. A maximum of one (1) course on the major is allowed in cases where two 2-unit courses are combined to equal one course equivalent. A six-unit course counts as one course on the requirements for the major.
- Regarding classes offered by Molecular, Cell & Developmental Biology and Physiological Science (Department of Integrative Biology & Physiology, IBP): enrollment in ALL upper division (UD) Physiological Science courses will be restricted to their majors during first pass. You must consult the IBP department about enrollment in courses during second pass for UD elective Physiological Science courses. Non-Physiological Science majors are restricted from enrolling in PHYSICI 107 and 111A/B at ALL TIMES.

Departmental Honors

- An overall GPA of 3.400 and a global GPA of 3.400 in the major are required for graduation with honors in Biology. Highest honors in Biology are awarded to students whose global and overall GPA are 3.600 at graduation and who have satisfactorily completed EE BIOL 198A & 198B. Students do not need to apply for departmental honors. All students are reviewed for honors following the receipt of final transcripts.