



BIOLOGY MAJOR (Fall 2020 and after)

LOWER DIVISION MAJOR PREPARATORY REQUIREMENTS (Life Science Core Curriculum)

Life Sciences 7A, 7B, 7C, 23L OR 1, 2, 3, 4, 23L (if completed before 2017-18)	
Chemistry 14A, 14B, 14BL, 14C, 14D OR 20A, 20B, 20L, 30AL, 30A, 30B	
Life Sciences 30A, 30B, OR Mathematics 3A, 3B, 3C OR Mathematics 31A/31AL, 31B, 32A	
Life Sciences 40 OR Statistics 13 (<i>Note: Should only take LS 40 if LS 30A/30B were completed.</i>)	
Physics 5A, 5B, 5C OR 1A, 1B, 1C, 4AL, 4BL	

UPPER DIVISION (UD) MAJOR REQUIREMENTS – CORE PRINCIPLES

EVOLUTION & GENETICS	<p>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, 144, M145 (same as EPSS M118), 160, 171, C174, CM173, 175, 181, 184</p> <p>Anthropology 120, 124P, 124Q, 124S, 128P</p> <p>Earth & Planetary Sciences 116</p> <p>Life Science 107</p> <p>Microbiology, Immunology, & Molecular Genetics CM156, 158</p> <p>Molecular, Cell, & Developmental Biology 138, CM156</p> <p>Society & Genetics M142</p>
INFORMATION FLOW	<p>Ecology & Evolutionary Biology 100, 100L, 116, 120 (or 185), 121, 122, 125, C126, 129, 132*, 134B, C135, 136, 137, 153, 156, 162, 162L, 170, 171, C172, C174, 176, M178 (same as C&S BIOL M186), C179, 180A, 180B, 183</p> <p>Anthropology 124P, 128P</p> <p>Chemistry C100, 153A, 166</p> <p>Life Science 107</p> <p>Microbiology, Immunology, & Molecular Genetics 100L, 101, 103AL, 103BL, 109AL, 109BL, 123, 132, CM156, 158, C185A</p> <p>Molecular, Cell, & Developmental Biology 100, 138, 143, 144, C150, 150AL, CM156, 165B, 168, M175A, M175B, M175C, 187AL</p> <p>Neuroscience M101A, M101B, M101C, 102</p> <p>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</p> <p>*Offered only as part of the FBQ</p>
STRUCTURE FUNCTION	<p>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, 144, M145 (same as EPSS M118), 147, 148, 151A, 151B*, 152, 155, M157, 160, 161, 162, 162L, 163*, 164*, 165*, 166*, 170 (or PHYSICI 166), 171, C174, 181, 184</p> <p>Chemistry C105, 153A, 153D, 153L</p> <p>Earth & Planetary Sciences 116</p> <p>Geography 108, 111, 112</p> <p>Microbiology, Immunology, & Molecular Genetics 100L, 101, 103AL, 103BL, 109AL, 132, CM156, 158, 168, C185A</p> <p>Molecular, Cell, & Developmental Biology 100, 138, M140, C141, 143, 144, 146, C150, 165A, 165B, 168, M175A, M175B, M175C</p> <p>Neuroscience M101A, M101B, M101C, 102</p> <p>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</p> <p>*Only offered as part of the FBQ/MBQ/FMBQ</p>



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<p>TRANSFORMATIONS OF ENERGY & MATTER</p>	<p>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 *Courses offered only as part of FBQ, MBQ, or FMBQ</p>
<p>SYSTEMS</p>	<p>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, 142, 144, 147, 148, 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 *Courses offered only as part of FBQ, MBQ, or FMBQ</p>

RULES FOR NEW 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.



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- 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.

- Credit deductions: students cannot take the following pairs of courses:
 - EE BIOL 120 & 185
 - EE BIOL 170 & PHYSICI 166
 - 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.

- 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.