

Requirements for the Biology Major 2015 and forward

College and University Requirements

Critical Thinking & Writing _____ Ethics _____ Science Technology & Society _____
 Cultures & Ideas _____ Civic Engagement _____ Advanced Writing _____
 Foreign Language _____ Diversity _____ Experiential Learning _____
 Religious Theology & Culture _____ Arts _____ Social Science _____
 Pathways * _____ * Can overlap other core or major requirements

Department Requirements

BIOL: 21, 22, 23, 24 & 25 CHEM: 11, 12, 13, 31 & 32 (CHEM 33 suggested)
 PHYS: 11, 12, 13 (or 31, 32, 33) MATH: 11 & 12 (Math 8 & 13 suggested)

Upper Division Courses: Most Biology majors choose one of the three emphases listed below. Each student is required to take **FIVE** courses within the emphasis. **TWO** additional elective courses may be taken in any area of emphasis. Of the seven total upper division courses, at least FIVE must have a laboratory component. Only one area of emphasis will appear on transcripts. An overall GPA of 2.0 is required in all biology courses.

Alternatively Biology majors may declare that they will follow an **“Integrative Biology”** plan, in which they choose their upper division courses to create a logical and focused plan of study. This course plan must be developed in consultation with their Biology faculty advisor.

Biomedical Sciences	Cellular & Molecular Biology	Ecology & Evolution
104 106 110 113	110 113 114 122	134 135 151 153
114 115 116 117	128 145 “171 & 189”	156 158 160 165
119 120 122 124	173 174 175 176 177	173 178 180
145 160 171 & 189	178 CHEM 141 CHEM 142	
174 175 178 179		
CHEM 141		

Biology 171 counts as a 3rd religion

Students are personally responsible for knowing all the academic regulations affecting their program of study and for completing all degree requirements as set forth by the University, their College or School, and academic department (s). Failure to understand these regulations and requirements does not relieve a student of responsibility. (Undergraduate Bulletin)

If you do not see a particular course on this list consult the relevant bulletin year.

BIO 21. Introduction to Physiology	BIO 189. Topics in Cell and Molecular Biology
BIO 22. Introduction to Evolution & Ecology	BIO 191. Project Lab L+ L
BIO 23. Investigations in Evolution & Ecology L + L	BIO 198. Internship and Undergraduate Research
BIO 24. Introduction to Cellular and Molecular Biology	BIO 199. Directed Reading and Research
BIO 25. Investigations in Cellular & Molecular Biology L + L	
UPPER DIVISION	
BIO 101. Biology Research Seminar	
BIO 104. Human Anatomy L + L	
BIO 106. Health Consequences of a Western Lifestyle	
BIO 110. Genetics L + L	
BIO 113. Microbiology L + L	
BIO 114. Immunology L + L	
BIO 115. Human Reproduction & Development L + L	
BIO 116. Medical Microbiology L&L	
BIO 117. Epidemiology L + L	
BIO 119. Biology of Stress	
BIO 120. Animal Physiology L+ L	
BIO 122. Neurobiology L+ L	
BIO 124. Human Physiology L+ L	
BIO 128. Plant Development L+ L	
BIO 134. California Plant Diversity L + L	
BIO 145. Virology	
BIO 151. Restoration Ecology L + L	
BIO 153. Conservation Science	
BIO 156. General Ecology L + L	
BIO 158. Biology of Insects L + L	
BIO 160 Biostatistics L + L	
BIO 165. Animal Behavior L+ L	
BIO 171. Ethical Issues in Biotechnology and Genetics ¹	
BIO 173. Evolution L + L	
BIO 174. Cell Biology L + L	
BIO 175. Molecular Biology L+ L	
BIO 176. Biotechnology Lab I: Recombinant DNA L+ L	
BIO 177. Biotechnology Lab II: Gene Expression L+ L	
BIO 178. Bioinformatics L + L	
BIO 179. Cancer Biology	
BIO 180. Marine Ecology L+ L	

¹ BIOL 171 and BIOL 189 must both be taken for BIOL 171 to count toward the 7 upper division biology courses required for the major.