

## Upper Division Biology A/B/C Distribution Guide

### Notes About This Guide

- Courses that appear on more than one list, including concentration lists, cannot count toward two list requirements. For use with fall 2015 and newer catalogs.
- BIOL 492, 493, 494, 496, and 499 may apply to your upper division requirement. Before enrolling, please contact a sciences advisor for more information and restrictions.
- This guide was last updated on April 11, 2024.
- Courses designated with the ‘\*’ must be taken together as corequisites.

### List A: Cell Structure and Function

Course	Description	Credits
BIOL 360	Biomathematics I	3 credits
BIOL 361	Biomathematics II	3 credits
BIOL 401R	Course-based Undergrad Research: Design to Data – Mutant Enzymes	4 credits
BIOL 405	Molecular Biology	3 credits
BIOL 409	Virology	3 credits
BIOL 416	Bioinformatics	3 credits
BIOL 425	Genomics	3 credits
BIOL 436	Biometry	3 credits
BIOL 437X	Evolution of Insects	3 credits
BIOL 443	Molecular Biotechnology	3 credits
BIOL 445	Cell Physiology	3 credits
BIOL 458	Stem Cells & Regeneration Biology	3 credits
BIOL 460	Microbial Physiology	3 credits
BIOL 464	Bacterial Pathogenesis	3 credits
BIOL 466	Developmental Biology	3 credits
BIOL 467X	Geomicrobiology	3 credits
BIOL 469	RNA Biology	3 credits
BIOL 470	Topics in Applied Microbiology	3 credits
BIOL 473	Advanced Topics in Cell and Molecular Biology	3 credits
BIOL 476X	Pharmacology	3 credits
BIOL 478	Cancer Cell Biology	3 credits
BIOL 480	Introduction to Biological Modeling	3 credits
BIOL 481	Advanced Cell Biology	3 credits
BIOL 485	Microbial Genetics	3 credits

## List B: Organismal Structure and Function

<b>Course</b>	<b>Description</b>	<b>Credits</b>
BIOL 347	Human Anatomy Lab	1 credit
BIOL 348	Human Anatomy	3 credits
BIOL 349	Human Physiology Foundations	3 credits
BIOL 360	Biomathematics I	3 credits
BIOL 401R	Course-based Undergrad Research: Design to Data – Mutant Enzymes	4 credits
BIOL 406	Climate Change Physiology (New Number)	3 Credits
BIOL 414	Endocrinology	3 credits
BIOL 417	Biochemical Adaptions	3 credits
BIOL 424X	Climate Change Physiology (Old Number)	3 credits
BIOL 426	Plant Anatomy	3 credits
BIOL 436	Biometry	3 credits
BIOL 439X	Advanced Marine Physiology	3 credits
BIOL 440	Mammalian Physiology	3 credits
BIOL 442	Principles of Plant Physiology	3 credits
BIOL 447	Advanced Comparative Animal Physiology	3 credits
BIOL 449X	Neurophysiology	3 credits
BIOL 451*	Comparative Vertebrate Anatomy	2 credits
BIOL 453	Immunology	3 credits
BIOL 455*	Comparative Vertebrate Anatomy & Biomechanics	3 credits
BIOL 463	Genetics of Human Disease	3 credits
BIOL 468	Histology	4 credits
BIOL 475	Neurobiology	3 credits
BIOL 476X	Pharmacology	3 credits
BIOL 480	Introduction to Biological Modeling	3 credits

## List C: Biological Diversity

<b>Course</b>	<b>Description</b>	<b>Credits</b>
BIOL 301	Fossil Record	3 credits
BIOL 305	Introduction to Conservation Biology	3 credits
BIOL 320	Invertebrate Zoology	4 credits
BIOL 341	Principles of Ecology	3 credits
BIOL 360	Biomathematics I	3 credits
BIOL 401R	Course-based Undergrad Research: Design to Data – Mutant Enzymes	4 credits
BIOL 403	Restoration Ecology	3 credits
BIOL 411X	Ecology, Evolution, and Biodiversity of Desert Plants and Animals	3 credits
BIOL 412	Molecular Evolution	3 credits
BIOL 413	Scientific Writing	3 credits
BIOL 418	Microbial Ecology	3 credits
BIOL 421GX	Conservation Genetics	3 credits
BIOL 427	Bryology	3 credits
BIOL 432	Herpetology	4 credits
BIOL 433	Ornithology	4 credits
BIOL 434	Mammalogy	4 credits
BIOL 435	Forest Ecology	3 credits
BIOL 436	Biometry	3 credits
BIOL 437	Entomology	4 credits
BIOL 437EX	Evolution of Insects	3 credits
BIOL 438	Soil Plant Water Relations in Arid Environments	3 credits
BIOL 441	Field Ecology	3 credits
BIOL 444	Principles of Plant Ecology	3 credits
BIOL 461	Prokaryotic Diversity	3 credits
BIOL 467X	Geomicrobiology	3 credits
BIOL 474C	Climate Change Ecology	3 credits
BIOL 480	Introduction to Biological Modeling	3 credits
BIOL 486	Animal Behavior	3 credits
BIOL 487	Principles of Systematics	3 credits
BIOL 490	Biogeography	3 credits
BIOL 491X	Ecology, Evolution, and Biodiversity	3 credits