Acceptable Upper-level Electives for the B.S., B.A. and Minor in Biology

- For the B.S. degree, a minimum of 9 of the 15 upper-level electives must be BIO courses (i.e. must have a BIO prefix).
- For the B.A. with Topical Focus, a minimum of 9 of the 15 upper-level electives must be BIO courses.
- For the B.A. with Minor option, a minimum of 6 of the 4-9 upper-level elective credit hours be BIO courses. If fewer than 6 hours are required to complete the requirements, all hours must be BIO courses.
- For the Biology minor, a minimum of 4 of the 8 elective credit hours be BIO courses.

**Biology**
BIO 3xx, BIO 4xx, BIO 5xx, BIO 6xx

**Anthropology**
ANT 332 (3) Human Evolution

**Chemistry**
CHE 226 (3-5) Analytical Chemistry*
CHE 233 (1) Organic Chemistry Laboratory II*
CHE 440G (4) Physical Chemistry
CHE 441G (2) Physical Chemistry Lab*
CHE 442G (3) Physical Chemistry
CHE 446G (3) Physical Chemistry for Engineers
CHE 532 (2) Spectrometric ID of Organic Compounds
CHE 533 (2) Qualitative Organic Analysis Lab*
CHE 550 (3) Biological Chemistry I
CHE 552 (3) Biological Chemistry II
CHE 558 (3) Hormone Receptors and Cell Signals
CHE 565 (3) Environmental Chemistry

**Geology**
EES 401G (3) Invertebrate Paleontology and Evolution

**Psychology**
PSY 459 (3) Neuropharmacology: Drugs and Behavior

**Statistics (Biology usually accepts only one of the following for each student)**
STA 570 (4) Basic Statistical Analysis
STA 580 (2) Biostatistics I
Other STA courses may be accepted at the discretion of your advisor.

**College of Agriculture, Food and Environment**
ABT 460 (3) Introduction to Molecular Genetics (Cross-listed as AGR/ASC/ENT 460)
ASC 364 (4) Reproductive Physiology of Animals
ASC 378 (4) Animal Nutrition
ENT 310 (3) Insect Pets of Field Crops
ENT 320 (3) Horticultural Entomology
ENT 402 (3) Forest Entomology (Cross-listed as FOR 402)
ENT 460 (3) Introduction to Molecular Genetics (Cross-listed as ABT/ASC/FOR 460)
ENT 561 (3) Insects Affecting Human and Animal Health
ENT 564 (4) Insect Taxonomy
ENT 568 (3) Insect Behavior
FOR 340 (4) Forest Ecology*
FOR 370 (4) Wildlife Biology and Management
FOR 375 (1) Taxonomy of Forest Vegetation
FOR 402 (3) Forest Entomology*
FOR 435 (3) Conservation Biology
FOR 530 (3) Freshwater Ecology
FOR 510 (4) Herpetology
FSC 530 (5) Food Microbiology*
NRE 320 (3) Natural Resource and Environmental Analysis
NRE 420G (4) Taxonomy of Vascular Plants*
NRE 450G (3) Biogeochemistry
NRC 455G (3) Wetland Delineation
PLS 320 (4) Woody Horticultural Plants*
PLS 366 (4) Fundamentals of Soil Science
PLS 450G (3) Biogeochemistry
PLS 502 (3) Ecology of Economic Plants
PLS 566 (3) Soil Microbiology
PLS 567 (1) Methods in Soil Microbiology (Lab)*
PPA 400G (3) Principles of Plant Pathology*

**College of Medicine**
ANA 410G (3) Neurobiology of Brain Disorders
ANA 442 (3) Molecular and Cellular Neurobiology
ANA 511 (5) Introduction to Human Anatomy*
ANA 512 (4) Microscopy and Ultrastructure*
ANA 516 (3) Anatomy of the Nervous System*
Some other anatomy courses at the 500-level are acceptable, but they are usually restricted to professional students.
BCH 401G (3) Fundamentals of Biochemistry
MI 494G (3) Immunobiology (same as BIO 494G)
MI 595 (2) Immunobiology Laboratory*
MI 598 (3) Clinical Microbiology (same as PAT 598)
PGY 412G (4) Principles of Human Physiology is acceptable as an elective for upper level biology credit ONLY IF a student DOES NOT complete BIO 350. It DOES NOT substitute for BIO 350 or BIO 430G) ((Only for students who started program before Fall 2017))
PGY 431 (3) Introduction to Neuroendocrinology
PGY 417 (2) Genomics and Epigenetics
PGY 512 (3) Evolutionary Medicine
PGY 560 (1) Pathophysiology
PGY 590 (4) Cellular and Molecular Physiology
TOX 509 (3) Biochemical and Environmental Toxicology
Unacceptable courses often mistakenly thought to be acceptable: ANA 209 (3) Principles of Human Anatomy and PGY 206 (3) Elementary Physiology are not acceptable electives for Biology majors. Other courses may be accepted at the discretion of the Director of Undergraduate Studies in the Department of Biology (biology@uky.edu)

*Courses that count as a lab course, to fulfill the required lab for upper-level electives