

Biology Course Lists

for Upper Division Degree Requirements

Effective December 2008

Course #	Course Title	# Credits
List A: Ecology & Evolutionary Biology		
BIOL 301(301X)	<i>Fossil Record</i>	3
BIOL 302	Evolutionary Survey of Vascular Plants	4
BIOL 305	Introduction to Conservation Biology	3
BIOL 341	Principles of Ecology	3
BIOL 412	<i>Molecular Evolution</i>	3
BIOL 418(418X)	<i>Microbial Ecology</i>	3
BIOL 420X	Introduction to Restoration Ecology	3
BIOL 423X	Ecosystem Management	3
BIOL 427	Bryology	3
BIOL 438X	Water Management	3
BIOL 441	Field Ecology	3
BIOL 444	Principles of Plant Ecology	3
BIOL 471	Aquatic Ecology	3
BIOL 472	Limnology	3
BIOL 480	<i>Introduction to Biological Modeling</i>	3
BIOL 486	<i>Animal Behavior</i>	3
BIOL 487	Principles of Systematics	3
BIOL 490	Biogeography	3

List B: Cell & Molecular Biology		
BIOL 304 / X 306X	Molecular Genetics Molecular Biology <small>304X, 304 and 306X are the same class if used for B, cannot also be used for genetics core</small>	3
BIOL 351	Microbial Systems	4
BIOL 402X	Genomics, Proteomics, & Bioinformatics	3
BIOL 405	Molecular Biology	3
BIOL 409	Virology	3
BIOL 412	<i>Molecular Evolution</i>	3
BIOL 414	<i>Endocrinology</i>	3
BIOL 417(417X)	<i>Biochemical Adaptations</i>	3
BIOL 418(418X)	<i>Microbial Ecology</i>	3
BIOL 419X	<i>Concepts in Pharm & Med Bioche</i>	3
BIOL 421X	<i>General Pharmacology</i>	3
BIOL 425	Genomics	3
BIOL 445	<i>Cell Physiology</i>	3
BIOL 449X	Comparative Nutrition	3
BIOL 452X	<i>Behavioral Endocrinology</i>	3
BIOL 453	Immunology	3
BIOL 460	<i>Microbial Physiology</i>	4
BIOL 464X	Bacterial Pathogenesis	3
BIOL 466	Developmental Biology	4
BIOL 470	Topics in Applied Microbiology	3
BIOL 473	Adv Topics in Cell and Molecular Biology	3
BIOL 475	<i>Neurobiology</i>	3
BIOL 481	Advanced Cell Biology	3
BIOL 485	Microbial Genetics	4
BIOL 489	Developmental Biology	3

No more than one (1) credit of the following courses may be used toward the departmental requirement for upper division biology credits:

Research/Seminar		
BIOL 492	Undergraduate Research	1
BIOL 493	Undergraduate Seminar	1
BIOL 494	Biology Colloquium	1
BIOL 496	Advanced Topics in Modern Biology	1

Course #	Course Title	# Credits
List C: Anatomical & Morphological Biology (AKA "IOB Anatomy")		
BIOL 348(348X)	Human Anatomy	3
BIOL 426	Plant Anatomy	3
BIOL 451(350)	Comparative Vertebrate Anatomy	5
BIOL 465	Vertebrate Embryology	4
BIOL 468	Histology	4

List D: Physiological Biology (AKA "IOB Physiology")		
BIOL 414	<i>Endocrinology</i>	3
BIOL 417(417X)	Biochemical Adaptations	3
BIOL 418(418X)	<i>Microbial Ecology</i>	3
BIOL 419X	<i>Concepts in Pharm & Med Bioche</i>	3
BIOL 421X	<i>General Pharmacology</i>	3
BIOL 440	Mammalian Physiology	3
BIOL 442	Principles of Plant Physiology	4
BIOL 445	<i>Cell Physiology</i>	3
BIOL 447	Comparative Animal Physiology	4
BIOL 449X	Comparative Nutrition	3
BIOL 452X	<i>Behavioral Endocrinology</i>	3
BIOL 460	<i>Microbial Physiology</i>	4
BIOL 461X	Comparative Biomechanics	3
BIOL 475	<i>Neurobiology</i>	3
BIOL 480	<i>Introduction to Biological Modelling</i>	3

List E: Systematic Biology (AKA "IOB Taxonomy")		
BIOL 301(301X)	<i>Fossil Record</i>	3
BIOL 302	Evolutionary Survey of Vascular Plants	4
BIOL 320	Invertebrate Zoology	4
BIOL 422	Taxonomy of Vascular Plants	4
BIOL 431	Ichthyology	4
BIOL 432	Herpetology	4
BIOL 433	Ornithology	4
BIOL 434	Mammalogy	4
BIOL 437	Entomology	4
BIOL 480	<i>Introduction to Biological Modelling</i>	3
BIOL 486	<i>Animal Behavior</i>	3
BIOL 487	Principles of Systematics	3

Italicized titles appear on more than one list (but cannot count toward two list requirements)

NO credit for BIOL 499 Instruction in Biological Sciences may be used toward the *departmental* requirement for upper division *biology* credits. Credit *can* be used toward the *college* requirement for a total of forty (40) upper division credits.