

Courses offered by the Biology Department- a 5 year plan

Please note that this is a tentative plan. Changes will be made in years to come, but this list can hopefully serve you well when planning your courses

600- classes are not posted here

Highlighted are cross-listed courses that are owned by other departments

Gateway Courses

Number	Course	How often	Number of students/year
101/L	Principles of Biology	Every semester	1500

Core Courses

Number	Course	How often	Number of students/year
201	Ecology and Evolution	Every semester	800
202	Molecular Biology and Genetics	Every semester	1000
202H	Molecular Biology and Genetics Honors	Fall	30
205	Cellular and Developmental Biology	Every semester	550
205H	Cellular and Developmental Biology-Honors	Spring	30

Teaching, Research and Others

Number	Course	How often	Number of students/year
221/L	Introduction to Research in Biology- Seafood forensics	Fall	25
395/395H/495	Undergraduate Research	Every semester	Unlimited
410	Principles and Methods of Teaching Biology	Every semester	10-15
692H	Senior Honors Thesis in Biology	Every semester	40

Neurobiology and behavior

Number	Course	How often	Number of students/year
278/L	Animal Behavior/Lab	Every semester	300
450	Neurobiology	Fall	75
455	Behavioral Neuroscience	Spring	60

Cell and Developmental Biology

Number	Course	How often	Number of students/year
431	Biological Physics	Fall	25
439	Introduction to Signal Transduction	Every other Fall	24
441/L	Vertebrate Embryology/Lab	Spring	90
442	Self Assembly in Biology	Fall	20
443	Developmental Biology	Fall	22
446	Unsolved Problems in Cellular Biology	Fall	33
447/L	Lab in Cell Biology/Lab	Every other Spring	14
490H	Cardiovascular Biology	Fall	new
514H	Evolution and Development	Every other Fall	12-16
542	Light Microscopy	Fall	20
590	Exploring Gut, Brain, and Immunity	Every other Fall	20

Animal Biology

None	Course	How often	Number of students/year
278/L	Animal Behavior/Lab	Every semester	300
350	Oceanography	Every year/semester	30-70
451/L	Comparative Physiology/Lab	Spring	80-90
474/L	Evolution of Vertebrate Life/Lab	Fall	80-100
475/L	Biology of Marine Animals/Lab	Every other Spring	30
476/L	Avian Biology/Lab	Every other Spring	15

Physiology, Microbiology, and Disease

Number	Course	How often	Number of students/year
252/L	Human Anatomy and Physiology /Lab	Every semester	950
253/L	Advanced Human Anatomy and Physiology /Lab	Spring	90
402	Infectious Disease in the Developing World	Every other Spring	35
422/L	Microbiology/Lab	Fall	70
424	Microbial Ecology	Every other Fall	20
424	Microbial Ecology	Every other Fall	20
445	Cancer Biology	Spring	35 (70 every other spring)
449	Immunology	Spring	New
451/L	Comparative Physiology/Lab	Spring	80-90

Genetics, Molecular Biology and Biochemistry

Number	Course	How often	Number of students/year
202H	Molecular Biology and Genetics- Honors	Fall	
423/L	Laboratory Experiments in Genetics	Spring	40
425	Human Genetics	Fall	40
427	Human Diversity and Population Genetics	Fall	20-25
430	Introduction to Biochemistry	Every semester	340
434	Molecular Biology	Fall	30
525/L	Computational Analyses and Resources in Genomics/Lab	Spring	20
526H	Computational Genetics	Every other Fall	10-16
528/L	Systems Biology of Genetic Regulation/Lab	Fall	15-20
537	Biotechnology and Synthetic Biology	Every other Fall	New

Ecology and Evolution

Number	Course	How often	Number of students/year
214H	Mathematics of Evolutionary Processes	Every other Spring	25
454	Evolutionary Genetics	Fall	20-30
461	Fundamentals of Ecology	Fall	15-20
462	Marine Ecology	Every other Spring	70+
465	Global Biodiversity & Macroecology	Fall	18
469	Behavioral Ecology	Fall	20-30
471/L	Evolutionary Mechanisms/Lab	Spring	30
474/L	Evolution of Vertebrate Life/Lab	Fall	80-100
514H	Evolution and Development	Every other Fall	12-16
553/L	Mathematical & Computational Models in Biology/Lab	Fall	15
555	Paleobotany	Every other Fall	20
562	Statistical Analysis in Env. Science	Fall	4
563	Statistical Analysis in Ecology & Evolution	Spring	8
568	Disease Ecology & Evolution	Fall	20

Plant Biology

Number	Course	How often	Number of students/year
217	The Physician's Garden	Fall	20
271/L	Plant Biology/Lab	Spring	35
272/L	Local Flora/Lab	Fall	45
274/L	Plant Diversity/Lab	Every other Fall	35
555/L	Paleobotany	Every other Fall	20
436	Plant Genetics, Development, and Biotechnology	Spring	25

Quantitative Biology

Number	Course	How often	Number of students/year
214H	Mathematics of Evolutionary Processes	Every other Spring	25
224H/L	Mathematics of Life Honors/Lab	Every other Spring	25
226/L	Mathematical Methods for QBioI	Every semester	25
431	Biophysics	Fall	25
454	Evolutionary Genetics	Fall	20-30
465	Global Biodiversity & Macroecology	Fall	18
525/L	Computational Analyses and Resources in Genomics/Lab	Spring	20
526H	Computational Genetics	Every other Fall	10-16
528/L	Systems Biology of Genetic Regulation/Lab	Fall	15-20
553/L	Mathematical & Computational Models in Biology/Lab	Fall	13
534 (Math 564)	Mathematical Modeling in Biology		New
542	Light Microscopy	Fall	20
562	Statistical Analysis in Environmental Science	Fall	4
563	Statistical Analysis in Ecology and Evolution	Spring	8

Courses that will probably not be offered in the near future

Number	Course	Comments
101H	Principles of Biology- Honors	
213	Evolution & Life	
256	Mountain Biodiversity	Probably not in the near future (ENEC 256)
294H	Service learning - APPLES	
273/L	Horticulture	
277/L	Vertebrate Field Zoology	
444	Molecular Basis of Disease	
448	Advanced Cell Biology	
453	Animal societies	
456	Marine Phytoplankton	Probably not in the near future (MASC 444)
457	Marine Biology	
458	Sensory Neurobiology	
463	Field Ecology	
464	Global Change Ecology	
472/L	Plant Taxonomy	
473/L	Mammalian Morphology and Adaption	
478/L	Invertebrate Paleontology	
501	Ethical Issues in the Life Sciences	
522	Bacterial genetics	
524	Host-Microbe Interactions	
529	Clinical Aspects of Human Genetics	Probably not in the near future (GENT 635)
535	Lab in Molecular Biology Techniques	
552	Behavioral Endocrinology	
556	Evolution of Animal Flight	
561	Ecological Plant Geography	
567	Evolutionary Ecology	