

Courses offered by the Biology Department during the fall semester of 2017

Please note that this list does NOT replace the undergraduate bulletin or Connect Carolina. Check both for the courses you find interesting and make sure you understand all the details. Connect Carolina should be your primary source for course listings. Classes and instructors are subject to change, so check Connect Carolina before you register

600 level courses are courses for graduate students and are open to exceptionally advanced undergraduates, with a special permission from the instructor. You can accumulate 3 hours of different 600-level courses for them to count as a biology elective

EE= Experiential Education requirement

Organismal= Organismal structure and diversity requirement

Introductory Courses

Number	Course	Instructors	Prerequisites	Credit hours	Comments
101	Principles of Biology	Evans;TBA		(3)	Gateway course
101L	Introductory Biology Lab	Stegenga		(1)	Gateway course
101H	Introductory Biology Lab Honors	J. DeSaix		(3)	Gateway course

Core Courses

Number	Course	Instructors	Prerequisites	Credit hours	Comments
201	Ecology and Evolution	Evans & Willett; Evans & TBA	101+ chem 101 or 102 (Grade C or better)	(4)	
202	Molecular Biology and Genetics	K.Hogan & TBA; Steinwand & Shemer	101+ chem 101 or 102 (Grade C or better)	(4)	
205	Cellular and Developmental Biology	Steinwand & Conlon; Steinwand & Peifer;	202	(4)	

Cell and Developmental Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
217	Physician's Garden	A. Jones	101	(3)	Transfer students only
431	Biological Physics	Superfine	Phys 116, 117	(3)	QBiol; Crosslisted with phys 405
439	Introduction to Signal Transduction	Kieber	205	(3)	
446	Unsolved Problems in Cell Biology	Harris	205	(3)	
450	Introduction to Neurobiology	K. Lohmann & TBA		(3)	
514H	Evolution and Development	D. Pfennig & Goldstein	201, 202, 205	(3)	
542	Light Microscopy	P. Maddox & Bloom	205 + permission of the instructor	(3)	QBiol
590-002	Self-Assembly in Biology	Gladfelter	205	(3)	
643	Seminar in Cell Biology	Rogers	205	(2)	
649	Seminar in Cell Biology	P. Maddox	205	(2)	

Physiology, Microbiology, and Disease

Number	Course	Instructors	Prerequisites	Credit hours	Comments
252	Human Anatomy and Physiology	Shemer; TBA	101/L	(3)	
252L	Human Anatomy and Physiology Lab	TBA	101L, co-req 252	(1)	Lab
422	Microbiology	Matthysse	202	(3)	
422L	Microbiology Laboratory	Matthysse	Permission of the instructor	(1)	Lab
421L	Microbiology Laboratory	Matthysse	Permission of the instructor	(2)	Lab. Counts as EE
426H	Biology of Blood Diseases Honors	Church	205	(3)	Crosslisted with path 426

Ecology and Evolution

Number	Course	Instructors	Prerequisites	Credit hours	Comments
159	Prehistoric Life	Hudley		(3)	Does not count for the major- Crosslisted with geol159
213	Evolution & Life	Kingsolver	101	(3)	Does not count for the major
214H	Mathematics of Evolutionary Processes- Honors	Servedio	101 + Math 231	(3)	Counts as QBiol
256	Mountain Biodiversity	TBA		(4)	Crosslisted with enec256. Taught at Highlands, NC
272	Local Flora	Weakley	101/L	(4)	Lab; Counts as organismal
454	Evolutionary Genetics	Matute	201 & 202	(3)	
461	Fundamentals of Ecology	Peet & White	201	(4)	Crosslisted with enec461
465	Global Biodiversity & Macroecology	Hurlbert	201	(4)	QBiol
469	Behavioral Ecology	K. Pfennig	201	(3)	
474	Evolution of Vertebrate Life	Sockman	201 or 202	(3)	Counts as organismal when 474 and 474L are completed
474L	Evolution of Vertebrate Life Lab	TBA	Pre- or co- 474	(1)	
514H	Evolution and Development	D. Pfennig & Goldstein	201, 202, 205	(3)	
562	Statistics for Environmental Scientists	TBA	Stor 155	(4)	QBiol
568	Disease Ecology and Evolution	Mitchell	201; math231	(3)	
659	Seminar in Evolutionary Biology	Vision	Permission of the instructor	(2)	

Plant Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
217	Physician's Garden	A. Jones	101	(3)	Transfer students only
272	Local Flora	Weakley	101/L	(4)	Lab; Counts as organismal
274	Plant diversity	Gensel	Pre- 101/L ; Co-requisite 274L	(3)	Counts as organismal, when 274 + 274L are completed
274L	Plant diversity Lab	Gensel	Co-requisite 274	(1)	

Genetics, Molecular Biology and Biochemistry

Number	Course	Instructors	Prerequisites	Credit hours	Comments
221	Seafood Forensics	Bruno & Martin	Pre- 101; Co-requisite 221L	(3)	
221L	Seafood Forensics Lab	Bruno & Martin	Co-requisite 221L	(1)	Lab
425	Human Genetics	Copenhaver & Sekelsky	202	(3)	
427	Human Diversity and Population Genetics	C. Jones	201, 202	(3)	
430/430H	Introduction to Biochemistry	TBA	101, chem262 or 262H	(3)	Crosslisted with chem430
514H	Evolution and Development	D. Pfennig & Goldstein	201, 202, 205	(3)	
528	Systems Biology of Genetic Regulation	Laederach	Corequisite 528L; Pre-biol 202, comp 116/biol226, math232	(3)	QBiol
528L	Systems Biology of Genetic Regulation Lab	Laederach	Corequisite 528	(1)	QBiol Lab
532	Advanced Topics: Molecular Bio Discoveries	Searles	202; either 205 or a 400-level biology	(3)	
535	Molecular Biology Techniques	Stafford	Permission of the instructor	(4)	Lab
590-001	Genome Engineering in Biology, Medicine and Society	Nimchuk		(3)	
590-002	Self-Assembly in Biology	Gladfelter		(3)	
621	Principles of Genetic Analysis I	Copenhaver, Ahmed, Sekelsky	202 and permission of the instructor	(3)	Crosslisted with gnet 621

Neurobiology and Behavior

Number	Course	Instructors	Prerequisites	Credit hours	Comments
252	Human Anatomy and Physiology	Shemer; TBA	101/L	(3)	
252L	Human Anatomy and Physiology Lab	TBA	101L, co-req 252	(1)	Lab
278	Animal Behavior	C. Lohmann	101/L	(3)	Counts as organismal, when 278 + 278L are completed
278L	Animal Behavior lab	C. Lohmann	Pre- or co- 278	(1)	
450	Introduction to Neurobiology	K. Lohmann & TBA		(3)	

Zoology and Animal Physiology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
278	Animal Behavior	C. Lohmann	101/L	(3)	Counts as organismal, when 278 + 278L are completed
278L	Animal Behavior lab	C. Lohmann	Pre- or co- 278	(1)	
350	Oceanography	Arnosti		(3)	Crosslisted with masc401
452	Marine Microbial Symbioses	Septer		(3)	Crosslisted with masc446
474	Evolution of Vertebrate Life	Sockman	201 or 202	(3)	Counts as organismal when 474 + 474L are completed
474L	Evolution of Vertebrate Life Lab	TBA	Pre- or co- 474	(1)	
551	Comparative Biomechanics	Kier	101/L+ phys 115	(3)	

Quantitative Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
214H	Mathematics of Evolutionary Processes- Honors	Servedio	101 + Math 231	(3)	Counts as QBiol
431	Biological Physics	Superfine	Phys 118, 119	(3)	QBiol; Crosslisted with phys 405
465	Global Biodiversity & Macroecology	Hurlbert	201	(4)	QBiol
528	Systems Biology of Genetic Regulation	Laederach	Corequisite 528L; Pre- biol 202, comp 116/biol226, math 232	(3)	QBiol
528L	Systems Biology of Genetic Regulation Lab	Laederach	Corequisite 528	(1)	QBiol Lab
542	Light Microscopy	P. Maddox & Bloom	205 + permission of the instructor	(3)	QBiol
562	Statistics for Environmental Scientists	TBA	Stor 155	(4)	QBiol

Teaching, Research and Others

Number	Course	Instructors	Prerequisites	Credit hours	Comments
291	Teaching apprentice in Biology	Faculty members	GPA biology 3.0 or higher; Permission of the instructor	(1)	Does not count for the major
292	Teaching assistant in Biology	Faculty members	GPA biology 3.0 or higher; Permission of the instructor	(2)	Does not count for the major
293	Internship in Biology	Matson and Coble	201 or 202 and GPA <3. Juniors and Seniors only. Permission of the instructor. For majors only	(3)	Does not count for the major Counts as EE
294H	Service Learning in Biology: APPLES	Raval	Permission of the instructor	(2)	Does not count for the major Counts as EE
395/495	Undergraduate Research	Faculty members	201 or 202; Permission of the instructor. For majors only	(1-3)	Counts as a lab if taken for 6 hr. or 3hr + 692H Counts as EE
395H	Undergraduate Research Honors	Shemer	201 or 202 and GPA 3.0 or higher; Permission of the instructor	(1-3)	Counts as a lab if taken for 6 hr. or 3hr + 692H Counts as EE
410	Principles and Methods of Teaching Biology	Coble	202 and 201/205; Permission of the instructor	(4)	Counts as EE
692H	Senior Honors Thesis	A. Maddox	395; Permission of the instructor; candidates for degrees with Honors. Cumulative and biology GPA = 3.3 or above.	(3)	Seniors majors only