Courses offered by the Biology Department during the fall semester of 2023

Please note that this list does NOT replace Connect Carolina. CC should be your primary source for course listings. Classes and instructors are subject to change. 600 level courses 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. Courses highlighted in yellow are offered by other departments and are crosslisted as bio electives. We cannot guarantee that they will be offered.

Introduction and Core Courses the old curriculum (students who entered in/after Fall 22)

Number	Course	Professors	Prerequisites	Credit hours	Comments
101	**Principles of Biology**	Hastie; TBA	None	(3)	Gateway course
101L	**Introductory Biology Lab**	Stegenga	None	(1)	Gateway course
102L	**Introductory Biology Lab Research**	Stegenga	None	(1)	Gateway course
103	**How Cells Function**	Garland; Ott; Ott	101	(3)	Fundamental in the new curriculum
104	**Biodiversity**	Evans	101	(3)	Fundamental in the new curriculum
105L	**Biological Research Skills**	Hastie	101/L	(1)	Fundamental in the new curriculum (Remote synch)
117	**Considering Health Professions**	Garland	None	(1)	For all pre-health students. Does not count for the major. (Remote synch)
220	**Molecular Genetics**	Shemer; Shemer	103	(3)	Core class in the new curriculum
240	**Cell Biology**	Rogers & Slep	103	(3)	Core class in the new curriculum
260	**Ecology**	Evans	104	(3)	Core class in the new curriculum

Introductory and Core Courses for the old curriculum (students who entered before Fall 22)

Number	Course	Professors	Prerequisites	Credit hours	Comments
101	**Principles of Biology**	Hastie; TBA	None	(3)	Gateway course
101L	**Introductory Biology Lab**	Stegenga	None	(1)	Gateway course
102L	**Introductory Biology Lab Research**	Stegenga	None	(1)	Gateway course
117	**Considering Health Professions**	Garland	None	(1)	For all pre-health students. Does not count for the major. (Remote synch)
205	**Cellular and Developmental Biology**	Garland & Nimchuk	202	(4)	

Cell and Developmental Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
431	**Biological Physics**	TBA	Phys 118, 119	(3)	QBiol; Crosslisted with phys 405
439	**Signal Transduction**	Kieber	205 or 103+104+240	(3)	
443	**Developmental Biology**	McKay	205 or 103+104+(220 or 240)	(3)	
448	**Advanced Cell Biology**	Ott	205 or 103+104+ 240	(3)	
514H	**Evolution & Development (Honors)**	D. Pfennig	201;202;205	(3)	
542	**Light Microscopy**	P. Maddox & Prunet	205 + permission of the instructor	(3)	QBiol
543H	**Cardiovascular Biology**	Bautch	205 or 104+220+240	(3)	
544L	**Lab in Diseases of the Cytoskeleton**	Slep & Rogers	205 or 104+240	(3)	Lab. CURE class.
545	**Exploring Brain, Gut, and Immunity**	Shiau	205 or 103 + 104 + (220 or 240)	(3)	
552	**Behavioral Endocrinology**	Burmeister	278 + (201&202 or 103&104)	(3)	
649	**Seminar in Cell Biology**	P. Maddox	205 or 240	(2)	

Plant Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
271	**Plant Biology**	Gensel	101/L. Coreq. 271L	(3)	Counts as organismal when 271 and 271L are completed
271L	**Plant Biology Lab**	Gensel	101/L. Coreq. 271		
272	**Local Flora**	Weakley	101/L	(4)	Lab; Counts as organismal
639	**Seminar in Plant Molecular and Cell Biology**	Reed	Permission of the instructor	(1)	

Genetics, Molecular Biology and Biochemistry

Number	Course	Instructors	Prerequisites	Credit hours	Comments
221	**Seafood Forensics**	Bruno	Pre- 101;Coreq 221L	(3)	CURE Lab. Counts as EE
221L	**Seafood Forensics Lab**	Bruno	Co-requisite 221	(1)	
405	**Good genes**	Zwemer	permission of the instructor	(3)	
425	**Human Genetics**	Copenhaver & Sekelsky	202 or 103+104+220	(3)	
427	**Human Diversity and Population Genetics**	C. Jones	201 & 202 or 103+104	(3)	
430/430H	**Introduction to Biochemistry**	Brunk; Hogan; Hogan;Redinbo	101, chem262/262H	(3)	Crosslisted w/ chem 430
434	**Molecular Biology**	Matera	chem 261 & 202/103+104+220	(3)	
454	**Evolutionary Genetics**	Johri	201&202 or 103&104	(3)	QBiol
621	**Principles of Genetic Analysis I**	Copenhaver & Sekelsky	202 or 220	(3)	Crosslisted with gnet 621
639	**Seminar in Plant Molecular and Cell Biology**	Reed	permission of the instructor	(1)	

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 masc 401
474	**Evolution of Vertebrate Life**	Sockman	201 or 202 or 103+104	(3)	Counts as organismal when 474 and 474L are completed
474L	**Evolution of Vertebrate Life Lab**	Johnson	Pre- or co- 474	(1)	
552	**Behavioral Endocrinology**	Burmeister	278 + (201&202 or 103&104)	(3)	

Ecology and Evolution

Number	Course	Instructors	Prerequisites	Credit hours	Comments
272	**Local Flora**	Weakley	101/L	(4)	Lab; Counts as organismal
454	**Evolutionary Genetics**	Johri	201&202 or 103&104	(3)	QBiol
461	**Fundamentals of Ecology**	Yitbarek	201 or 103+104+260	(3)	
461L	**Fundamentals of Ecology Lab**	Yitbarek	Pre- or co-461L	(1)	lab
465	**Global Biodiversity & Macroecology**	Hurlbert	201 or 103+104+260	(3)	QBiol
469	**Behavioral Ecology**	Pfennig K.	201 or 103+104	(3)	
474	**Evolution of Vertebrate Life**	Sockman	201 or 202 or 103+104	(3)	Counts as organismal when 474 and 474L are completed
474L	**Evolution of Vertebrate Life Lab**	Johnson	Pre- or co-474	(1)	
514H	**Evolution & Development (Honors)**	D. Pfennig	201;202;205	(3)	
669- 001	**Seminar in Ecology**	Bruno	201 or 260	(3)	Cross-listed as enec 669
669- 002	**Seminar in Ecology**	Yitbarek	201 or 260	(2)	Cross-listed as enec 669

Physiology, Microbiology, and Disease

Number	Course	Instructors	Prerequisites	Credit hours	Comments
204	**The microbial world**	Gifford	103 or 101 + permission of the instructor	(3)	Crosslisted w/ emes 204
252	**Human Anatomy and Physiology**	Johnson; Zwemer; Zwemer	101/L	(3)	
252L	**Human Anatomy and Physiology Lab**	Johnson	101L, co-req 252	(1)	Lab
422	**Microbiology**	Matthysse & McCoy	202 or 103+104+220	(3)	Counts as organismal when 422/ L are completed
422L	**Microbiology Laboratory**	Matthysse	Pre- or co- 422	(1)	

Quantitative Biology

Number	Course	Instructors	Prerequisites	Credit hours	Comments
431	**Biological Physics**	TBA	Phys 118, 119	(3)	QBiol;Crosslisted w/ phys 405
454	**Evolutionary Genetics**	Johri	201&202 or 103&104	(3)	QBiol
465	**Global Biodiversity & Macroecology**	Hurlbert	201 or 103+104+260	(3)	QBiol
525	**Analysis & Interpretation of Sequence-Based Functional Genomics**	Furey	202 or 103+104+220; comp; stor. Corequisite 525L	(3)	QBiol
525L	**Analysis & Interpretation of Sequence-Based Functional Genomics Lab**	Furey	Corequisite 525	(1)	QBiol Lab
534	**Mathematical Modeling in the Life Sciences**	Leiderman	Math 383	(3)	QBiol; crosslisted with math 564
542	**Light Microscopy**	P. Maddox & Prunet	205 or 103+104+240	(3)	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**	A. Maddox	201 or 202; Permission of the instructor. For majors only	(3)	Does not count for the major. Counts as EE
295	**Educational and Social Research in Biology**	Ott		(1-3)	Does not count towards the major
395/495	**Undergraduate Research**	Faculty members	201 or 202; Permission of the instructor. For majors only. New curriculum: core class (e.g. 220).	(1-3)	Counts as EE or Reseach & discovery.
395H	**Undergraduate Research (Honors)**	Shemer	201 or 202 and GPA 3.0 or higher; Permission of the instructor. New curriculum: core class (e.g. 220).	(1-3)	Counts as EE or Reseach & discovery.
409L	**Printmaking and Biology**	Goldstein & Grabowski	Co-req with arts409H; a 200-level course in Biol or in Studio Art; permission of instructor	(1)	Does not count for the major. Counts as EE
692H	**Senior Honors Thesis**	TBA	395; Permission of the instructor; candidates for degrees with Honors. Cumulative and biology GPA = 3.3 or above.	(3)	Seniors majors only