

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

Please note that this list does NOT replace Connect Carolina.

600-level courses are mainly geared towards graduate students and are open to exceptionally advanced undergraduates, with a special permission from the instructor. Highlighted courses are cross-listed classes that are controlled by other departments.

EE= Experiential Education requirement Organismal= Organismal structure and diversity requirement

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

Number	Course	Professors	Prerequisites	Credit hours	Comments
53	Biotechnology: GMO to the Sequence of the Human Genome	J. Downen	None	(3)	FYS. Does not count for the major
89	Biodiversity and Citizen Science	Hurlbert	None	(3)	FYS. Does not count for the major
101	Principles of Biology	Hastie; Hogan	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; Garland	101	(3)	Fundamental class in the new curriculum
103- FYL	How Cells Function	Ott	101	(3)	Fundamental class in the new curriculum
104	Biodiversity	Zwemer; Zwemer	101	(3)	Fundamental class in the new curriculum
104- FYL	Biodiversity	Evans	101	(3)	Fundamental class in the new curriculum
105L	Biological Research Skills	Hastie	101/L	(1)	Fundamental class in the new curriculum (Remote synch)
118	Pursuing Health Professions	Garland	None	(1)	For all pre-health students. Does not count for the major (Remote synch)
220	Molecular Genetics	Shemer	103	(3)	Core class in the new curriculum
220H	Molecular Genetics Honors	Bloom	103	(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; Hogan	None	(3)	Gateway course
101L	Introductory Biology Lab	Stegenga	None	(1)	Gateway course
102L	Introductory Biology Lab Research	Stegenga	None	(1)	Gateway course
118	Pursuing Health Professions	Garland	None	(1)	For all pre-health students. Does not count for the major (Remote synch)
201	Ecology and Evolution	Evans & Willett; Evans & Willett	101+ chem 101 or 102 (Grade ≥ C)	(4)	
202	Molecular Biology and Genetics	Zwemer; Ott & Slep	101+ chem 101 or 102 (Grade ≥ C)	(4)	
202H	Molecular Biology and Genetics Honors	Kieber	101+ chem 101 or 102 (Grade ≥ C)	(4)	
205	Cellular and Developmental Biology	Garland & Gordon	202	(4)	
205H	Cellular and Developmental Biology-Honors	Goldstein & Shiau	202	(4)	

Research, Teaching, and Professional Development

Number	Course	Professors	Prerequisites	Credit hours	Comments
291/292	Teaching Apprentice/Teaching Assistant in Biology	Faculty members	GPA ≥ 3.0 Application required	(1)	Does not count for the major
293	Internship in Biology	Johnson	201 or 202; Application required	(3)	Does not count for the major; Counts as EE
295	Educational and Social Research in Biology	Faculty members	Application required	(1-3)	Does not count for the major
395/495 and 395H	Undergraduate Research in Biology	Faculty members	201 or 202; Application required	(1-3)	Counts as a lab if taken for 6 hr. or 3hr +biol 692H; Counts as EE; Majors only
635	Careers in Biotechnology	Salmeron		(1)	Does not count for the major
692H	Senior Honors Thesis in Biology	A. Maddox	395; Application required	(3)	Seniors bio majors only

Human Physiology, Microbiology, and Disease

Number	Course	Professors	Prerequisites	Credit hours	Comments
252	Human Anatomy & Physiology	Ott; Shemer	101/L	(3)	
252L	Human Anatomy & Physiology Lab	Johnson	101L, co-req 252	(1)	
253	Advanced Human Anatomy & Physiology	Hastie; Johnson	252; co-req 253L	(3)	Does not count for the major
253L	Advanced Human A&P Lab	Johnson	252L; co-req 253	(1)	Does not count for the major
290	The Cellular Agriculture Revolution	A. Jones	Permission of the instructor	(3)	
445	Cancer Biology	Peifer	205	(3)	
453	Molecular Control of Metabolism and Metabolic Disease	R. Downen	205	(3)	
481	Epidemic Diseases in History	Matthysse	422/mcro 251	(3)	
523	Sex Differences in Human Disease	Conlon	202	(3)	
546	Biology of Aging	Ahmed	205	(3)	

Genetics, Molecular and Cellular Biology

Number	Course	Professors	Prerequisites	Credit hours	Comments
430	Introduction to Biochemistry	B. Hogan	101, chem262 or 262H	(3)	Cross-listed as chem 430
436H	Plant Genetics, Development, and Biotechnology Honors	Reed	202 or 271	(3)	
445	Cancer Biology	Peifer	205	(3)	
625	Seminar in Genetics: Meiosis, Recombination, and Sex	C. Jones, Copenhaver & Sekelsky	Permission of the instructors	(2)	Cross-listed as gnet 625
649	Seminar in Cell Biology	P. Maddox	205	(2)	
680	Advances in Genome Editing	Nimchuk		(1)	

Zoology and Animal Physiology

Number	Course	Professors	Prerequisites	Credit hours	Comments
278	Animal Behavior	C. Lohmann	101 and 101L	(3)	Counts as organismal, when 278 & 278L are completed
278L	Animal Behavior lab	C. Lohmann	Pre- or co- 278	(1)	
350	Oceanography	Teske	None	(3)	Cross-listed as envr 417, geol 403, masc 401
451	Comparative Physiology	Hedrick	101/L; phys114/118; phys115/119	(3)	Counts as organismal when 451 & 451L are completed
451L	Comparative Physiology lab	Hedrick	Pre- or co- 451	(1)	
457	Marine Biology	Septer			Cross-listed as masc 442
474	Evolution of Vertebrate Life	Sockman	201 or 202;	(3)	Counts as organismal when 474 & 474L are completed
474L	Vertebrate Structure and Evolution Lab	Isdner	Pre- or corequisite: 474	(1)	
657	Biological Oceanography	Marchetti	Permission of the instructor	(4)	Does not count as a lab. Cross-listed as masc 504

Quantitative Biology

Number	Course	Professors	Prerequisites	Credit hours	Comments
224H	The Mathematics of Life	Servedio & Vision	Math 231; Corequisite 224L	(3)	QBiol
224L	The Mathematics of Life Lab	Servedio & Vision	Math 231; Corequisite 224H	(1)	QBiol
528	Quantitative personalized genomics	Laederach	Corequisite 528L; Pre- biol 202, comp 116/biol226	(3)	QBiol w/L
528L	Quantitative personalized genomics Lab	Laederach	Corequisite 528	(1)	Remote Synch (lab only)
Comp 555	Bioalgorithms	McMillan	Comp 401, 410; math 231/553/biol 525	(3)	QBiol

Neurobiology and Behavior

Number	Course	Professors	Prerequisites	Credit hours	Comments
252	Human Anatomy and Physiology	Ott; Shemer;	101/L	(3)	
252L	Human Anatomy and Physiology Lab	Johnson	101L, co-req 252	(1)	
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	Neurobiology	K. Lohmann	Recommended- 205	(3)	
455	Behavioral Neuroscience	Burmeister	205	(3)	

Ecology, Botany, and Evolution

Number	Course	Professors	Prerequisites	Credit hours	Comments
436H	Plant Genetics, Development, and Biotechnology Honors	Reed	202 or 271	(3)	
461	Fundamentals of Ecology	Yitbarek	201	(4)	Lab
471	Evolutionary Mechanisms	Kingsolver & D. Pfennig	201 and 202; corequisite 471L	(3)	Counts as organismal when 471 & 471L are completed
471L	Evolutionary Mechanisms- Lab	Kingsolver & D. Pfennig	corequisite 471	(1)	
474	Evolution of Vertebrate Life	Sockman	201 or 202;	(3)	Counts as organismal when 474 & 474L are completed
474L	Vertebrate Structure and Evolution Lab	Isdamer	Pre- or corequisite: 474	(1)	
490	Advanced Topics in Biology: Major Events in the Evolution of Life	Gensel	BIOL 101 or permission of the instructor	(3)	
568	Disease Ecology and Evolution	Mitchell	201; math 231	(3)	
659	Seminar in Evolutionary Biology	Kingsolver	Permission of the instructor	(2)	
669-001	Seminar in Ecology	K. pfennig	Permission of the instructor	(1)	
669-002	Seminar in Ecology- Plant Conservation Garden	Waitt		(2)	

Schedule subject to change. Please see Connect Carolina for the most recent course info.