

BIOLOGY (COMPREHENSIVE CONCENTRATION), BACHELOR OF SCIENCE

Summary

Code	Title	Hours
Core Curriculum Requirements (https://catalog.tsu.edu/undergraduate/general-education-core-curriculum/) ¹		42
Major Requirements (50 hours)		
BIOL 111	Biological Science Lab I	1
BIOL 112	Biological Science Lab II	1
BIOL 1306	Biological Science I	3
BIOL 132	Biological Science II	3
BIOL 211	Cell Biology Lab	1
BIOL 212	Developmental Biology Lab	1
BIOL 231	Cell Biology	3
BIOL 232	Developmental Biology	3
BIOL 338	Genetics	3
BIOL 340	Biochemistry of Biological Com	3
BIOL 341	Organismic Biology	4
BIOL 347	Microbiology	4
BIOL 401	Undergraduate Research (Capstone Course)	3
BIOL 443	Molecular Biology	4
BIOL 450	Molecular Genetics	3
BIOL 454	Immunology	3
BIOL 460	Biostatistics	3
BIOL 499	Biology Seminar	1
Upper Level BIOL Electives (select 3 hours from):		3
BIOL 300	Seminar Hlth Related Profs	
BIOL 332	Bioinformatics	
BIOL 334	Conservation Biology	
BIOL 343	Ecology	
BIOL 344	Vertebrate Anatomy and Hist	
BIOL 345	Ecology Laboratory	
BIOL 348	Experiments in Biology II	
BIOL 349	Principles of Entomology	
BIOL 431	Radiation Biology	
BIOL 434	Evolutionary Biology	
BIOL 435	Hist & Philosophy of Science	
BIOL 438	Plant Biology	
BIOL 439	Principles of Biology	
BIOL 441	Histology	
BIOL 446	Human Physiology Lab	
BIOL 447	Human Physiology	
BIOL 448	Cellular Physiology	
BIOL 451	General Parasitology	
BIOL 452	Intermediary Cellular Metabol	
BIOL 461	Environ Sampling & Analysis	
Other Requirements (28 hours)		
CHEM 111	Chemistry I Lab	1

CHEM 112	Chemistry II Lab	1
CHEM 211	Organic Chem I Lab	1
CHEM 212	Organic Chem II Lab	1
CHEM 231	Organic Chem I	3
CHEM 232	Organic Chem II	3
MATH 2312	Precalculus Math	3
MATH 2413	Calculus & Analytic Geomtry I	4
PHYS 213	College Phys Lab I	1
PHYS 214	College Phys Lab II	1
PHYS 1301	College Physics I	3
PHYS 1302	College Physics II	3
FS 102	Freshman Seminar/ first Year Experience	1
Free Electives-2 hours of free electives		2
Total Hours		120

¹ Students should be advised by a major advisor prior to registering for any credit, particularly any core curriculum credit as listed.

Course	Title	Hours
First Year		
First Semester		
BIOL 1306	Biological Science I	3
BIOL 111	Biological Science Lab I	1
CHEM 1311	Chemistry I	3
CHEM 111	Chemistry I Lab	1
ENGL 1301	Freshman English I	3
MATH 1314	College Algebra	3
FS 102	Freshman Seminar/ first Year Experience	1
COMM 1321	Business & Professional Comm	3
or COMM 1315	or Public Address	
Hours		18
Second Semester		
BIOL 132	Biological Science II	3
BIOL 112	Biological Science Lab II	1
CHEM 1312	Chemistry II	3
CHEM 112	Chemistry II Lab	1
ENGL 1302	Freshman English II	3
MATH 2312	Precalculus Math	3
Select one of the following:		3
MUSI 1315	Fine Arts In Daily Living	
THEA 1310	Introduction to Theatre	
ART 135	Topics in Contemp Art & Cultur	
ARTS 1315	Intro African Art	
ART 139	African-American Art & Culture	
Hours		17
Second Year		
Third Semester		
BIOL 231	Cell Biology	3
BIOL 211	Cell Biology Lab	1
CHEM 231	Organic Chem I	3
CHEM 211	Organic Chem I Lab	1
Select one of the following:		3
ENGL 2326	American Literature	

ENGL 2328	African-American Literature	
ENGL 2332	World Literature I	
ENGL 2333	World Literature II	
MATH 2413	Calculus & Analytic Geomtry I	4
HIST 1301	Soc & Pol Hist US to 1877	3
Hours		18
Fourth Semester		
BIOL 232	Developmental Biology	3
BIOL 212	Developmental Biology Lab	1
CHEM 232	Organic Chem II	3
CHEM 212	Organic Chem II Lab	1
COSC 1301	Intro To Compr Science I	3
HIST 1302	Soc & Pol Hist US Since 1877	3
Hours		14
Third Year		
Fifth Semester		
BIOL 338	Genetics	3
BIOL 340	Biochemistry of Biological Com	3
PHYS 213	College Phys Lab I	1
PHYS 1301	College Physics I	3
POLS 2305	American Government	3
Hours		13
Sixth Semester		
BIOL 341	Organismic Biology	4
BIOL 347	Microbiology	4
PHYS 214	College Phys Lab II	1
PHYS 1302	College Physics II	3
POLS 2306	Texas Government	3
Hours		15
Fourth Year		
Seventh Semester		
BIOL 443	Molecular Biology	4
BIOL 460	Biostatistics	3
BIOL 499	Biology Seminar	1
Free Elective		2
Select one of the following:		3
PSYC 2301	General Psychology	
SOCI 1301	Introduction To Sociology	
SOCI 1306	Contemporary Social Issues	
Hours		13
Eighth Semester		
BIOL 450	Molecular Genetics	3
BIOL 454	Immunology	3
BIOL Elective		3
BIOL 401	Undergraduate Research (Capstone Course) (Capstone Course)	3
Hours		12
Total Hours		120

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