

BIOLOGY (GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE), BACHELOR OF SCIENCE

The University Core Curriculum is the same across all undergraduate bachelor's programs. Please consult the academic advisor for your designated major before selecting courses in this area.

Summary

Code	Title	Hours
	General Education Core Curriculum (p. 1)	42
	Major Requirements (p. 1)	50
	Other Requirements (p.)	35
Total Hours		127

General Education Core Curriculum (Standard)¹

Code	Title	Hours
Communication		
ENGL 1301	Freshman English I	3
ENGL 1302	Freshman English II	3
Mathematics		
MATH 1314	College Algebra	3
Life and Physical Sciences		
CHEM 1311	Chemistry I	3
CHEM 1312	Chemistry II	3
Language, Philosophy, and Culture		
Select one of the following:		3
ENGL 2332	World Literature I	
ENGL 2333	World Literature II	
ENGL 2326	American Literature	
ENGL 2328	African-American Literature	
Creative Arts		
Select one of the following:		3
MUSI 1315	Fine Arts In Daily Living	
THEA 1310	Introduction to Theatre	
ARTS 1315	Intro African Art	
American History		
HIST 1301	Soc & Pol Hist US to 1877	3
HIST 1302	Soc & Pol Hist US Since 1877	3
Government/Political Science		
POLS 2305	American Government	3
POLS 2306	Texas Government	3
Select one of the following:		3
PSYC 2301	General Psychology	
SOCI 1301	Introduction To Sociology	
SOCI 1306	Contemporary Social Issues	
Institutional Options		

COSC 1301	Intro To Compr Science I	3
COMM 1321	Business & Professional Comm	3
	or COMM 1315 Public Address	

Total Hours 42

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Major (Biology)

Code	Title	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 441	Histology	4
BIOL 443	Molecular Biology	4
BIOL 447	Human Physiology	3
BIOL 454	Immunology	3
BIOL 460	Biostatistics	3

Total Hours 50

Other Requirements

Code	Title	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
GIS Certificate Courses		
ES 441	Principles and Applications of Geographical Information Systems (GIS)	3
ES 442	Geospatial Ecology	3
ES 443	Remote Sensing and Image Interpretation	3

Total Hours 35

Course	Title	Hours			Hours
First Year			BIOL 341	Organismic Biology	4
First Semester			PHYS 213	College Phys Lab I	1
BIOL 1306	Biological Science I	3	PHYS 1301	College Physics I	3
BIOL 111	Biological Science Lab I	1	POLS 2305	American Government	3
CHEM 1311	Chemistry I	3	Hours		
CHEM 111	Chemistry I Lab	1	Sixth Semester		
ENGL 1301	Freshman English I	3	BIOL 347	Microbiology	4
MATH 1314	College Algebra	3	PHYS 214	College Phys Lab II	1
FS 102	Freshman Seminar/ first Year Experience	1	PHYS 1302	College Physics II	3
COMM 1321 or COMM 1315	Business & Professional Comm or Public Address	3	ES 441	Principles and Applications of Geographical Information Systems (GIS)	3
Hours		18	POLS 2306	Texas Government	3
Second Semester			Select one of the following:		
BIOL 132	Biological Science II	3	PSYC 2301	General Psychology	
BIOL 112	Biological Science Lab II	1	SOCI 1301	Introduction To Sociology	
CHEM 1312	Chemistry II	3	SOCI 1306	Contemporary Social Issues	
CHEM 112	Chemistry II Lab	1	Hours		
ENGL 1302	Freshman English II	3	Fourth Year		
MATH 2312	Precalculus Math	3	Seventh Semester		
Select one of the following:		3	BIOL 443	Molecular Biology	4
MUSI 1315	Fine Arts In Daily Living		BIOL 460	Biostatistics	3
THEA 1310	Introduction to Theatre		BIOL 447	Human Physiology	3
ARTS 1315	Intro African Art		ES 442	Geospatial Ecology	3
ART 139	African-American Art & Culture		Hours		
Hours		17	Eighth Semester		
Second Year			BIOL 441	Histology	4
Third Semester			BIOL 454	Immunology	3
BIOL 231	Cell Biology	3	BIOL 401	Undergraduate Research (Capstone Course)	3
BIOL 211	Cell Biology Lab	1	ES 443	Remote Sensing and Image Interpretation	3
CHEM 231	Organic Chem I	3	Hours		
CHEM 211	Organic Chem I Lab	1	Total Hours		
MATH 2413	Calculus & Analytic Geomtry I	4	127		
HIST 1301	Soc & Pol Hist US to 1877	3			
Select one of the following:		3			
ENGL 2332	World Literature I				
ENGL 2333	World Literature II				
ENGL 2326	American Literature				
ENGL 2328	African-American Literature				
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			
HIST 1302	Soc & Pol Hist US Since 1877	3			
COSC 1301	Intro To Compr Science I	3			
Hours		14			
Third Year					
Fifth Semester					
BIOL 338	Genetics	3			
BIOL 340	Biochemistry of Biological Com	3			

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