

BIOLOGY - PRE-HEALTH PROFESSIONAL BIOLOGY (BACHELOR OF SCIENCE)

Pre-Health Professional Biology is for those majors who intend to seek admission to such health professions as medicine, dentistry, physical therapy, etc., or graduate study in the biomedical sciences.

A minor in Chemistry is recommended for the Pre-Health Professional Biology program.

The requirements for the major in Biology are:

Course	Title	Credits
Freshman Biology Sequence		
BY 101	Introductory Biology I	3
BY 102	Introductory Biology II	3
BY 103	Introductory Biology Lab I	1
BY 104	Introductory Biology Lab II	1
Biology Core Courses		
BY 322	Genetics (WI)	4
BY 324	Introduction to Evolutionary Biology	3
BY 332	Ecology	4
BY 373	Cell Biology	4
Biology concentration (see requirements below)		15
Senior Seminar		
BY 496	Senior Seminar (WI)	1
Freshman Chemistry Sequence		
CY 105	General Chemistry I	3
CY 106	General Chemistry II	3
CY 107	General Chemistry Laboratory I	1
CY 108	General Chemistry Laboratory II	1
Organic Chemistry sequence		
CY 231	Organic Chemistry I	4
CY 232	Organic Chemistry II	4
Mathematics		
Select one of the following:		3-4
MS 113	Precalculus Trigonometry	
MS 125	Calculus I	
or higher		
Computer Science		
CS 201	Introduction to Information Technology	3
Physics Sequence		
PHS 201 & PHS 203	College Physics I and College Physics Laboratory Techniques I	4
PHS 202 & PHS 204	College Physics II and College Physics Laboratory Techniques II	4
Total Hours		69-70

The requirements for the concentration in Pre-Health Professional Biology are:

Course	Title	Credits
BY 320	Comparative Vertebrate Anatomy	4
BY 434	Animal Systems Physiology	4
BY 300+ Electives		7
Total Hours		15

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. **More information about general education requirements can be found in the Summary of Degrees/Requirements (<https://catalog.jsu.edu/undergraduate/summary-degrees-requirements/>) section of the catalog.**

Freshman

Fall	Hours
EH Composition sequence	
BY 101 & BY 103	Introductory Biology I and Introductory Biology Lab I
CY 105 & CY 107	General Chemistry I and General Chemistry Laboratory I
MS 112	Precalculus Algebra (or higher)
SSC 101	First Year Experience
Hours	

Spring	Hours
EH Composition sequence	
BY 102 & BY 104	Introductory Biology II and Introductory Biology Lab II
CY 106 & CY 107	General Chemistry II and General Chemistry Laboratory I
MS 113	Precalculus Trigonometry (or higher)
Hours	

Sophomore

Fall	Hours
History sequence	
Social/Behavioral Science	
BY 322	Genetics (WI)
CY 231	Organic Chemistry I
Hours	

Spring	Hours
History sequence	
Social/Behavioral Science	
CS 201	Introduction to Information Technology (or higher)
BY 373	Cell Biology
CY 232	Organic Chemistry II
Hours	

Junior	Hours
Fall	
EH 141	Speech
BY 320	Comparative Vertebrate Anatomy
PHS 201 & PHS 203	College Physics I and College Physics Laboratory Techniques I ¹
Biology Concentration Elective ²	
Hours	

Spring	Hours
Literature	
BY 434	Animal Systems Physiology
PHS 202 & PHS 204	College Physics II and College Physics Laboratory Techniques II ¹
Biology Concentration Elective ²	
Hours	

Senior

Fall	Hours
Literature	
Hours	

2 Biology - Pre-Health Professional Biology (Bachelor of Science)

BY 332	Ecology	4
BY 324	Introduction to Evolutionary Biology	3
Electives		6
Hours		16
Spring		
Fine Arts		3
BY 496	Senior Seminar (WI)	1
Electives		12
Hours		16
Total Hours		120

¹ Student may elect to take calculus-based PHS 221 Physics for Scientists and Engineers I w/Lab (4) /PHS 222 Physics for Scientists and Engineers II w/Lab (4) in place of PHS 201 College Physics I (3)/PHS 202 College Physics II (3).

² Recommended elective courses: BY 323, BY 402, BY 403, BY 450, CY 362. A minor in chemistry is also recommend.