

# BA in Biological Sciences with Biological/Biomedical Emphasis

## Program Requirements

A minimum total of 120 credit hours is required for the BA in biological sciences with a biological/biomedical emphasis. In addition to meeting the requirements of the WSU General Education Program (<http://catalog.wichita.edu/undergraduate/academic-information/general-education-program/>) and the requirements of Fairmount College of Liberal Arts and Sciences, students must meet the following requirements:

A major in biological sciences leading to the BA with a biological/biomedical emphasis requires a minimum of 30 credit hours of biological sciences coursework; up to 40 credit hours may be taken for credit. Students must maintain a grade point average of 2.000 in all biological sciences coursework.

Course	Title	Hours
<b>General Education</b>		
Select courses to meet General Education requirements <sup>1</sup>		34-35
<b>College Requirements</b>		
LAS Competencies and Electives - select enough courses to reach 120 credit hours and complete all LAS Competency Areas <sup>1</sup>		34-37
<b>Major Required Courses</b>		
BIOL 210	General Biology I	4
BIOL 211	General Biology II	4
BIOL 417	Evolution	3
BIOL 418	General Ecology	4
BIOL 419	Genetics	4
BIOL 420	Molecular Cell Biology	4
BIOL 497 or BIOL 499	Biology Colloquium Undergraduate Research	1-2
<b>Major Elective Courses</b>		
Select additional approved biology/biomedical electives <sup>2</sup>		5-6
BIOL 330	General Microbiology	
BIOL 330L	General Microbiology Lab	
BIOL 407	Human Genetics	
BIOL 481	Cooperative Education	
BIOL 499	Undergraduate Research	
BIOL 527	Comparative Anatomy	
BIOL 527L	Comp Anat Lab	
BIOL 528	Parasitology	
BIOL 530	Applied and Environmental Microbiology	
BIOL 534	Human Physiology	
BIOL 535	Human Physiology Lab	
BIOL 540	Developmental Biology	
BIOL 540L	Developmental Biology Lab	
BIOL 542	Molecular Genetics	
BIOL 590	Immunobiology	
BIOL 626	Reproductive Biology	
BIOL 640AB	Human Anatomy	
BIOL 640AL	Human Anatomy Lab	
BIOL 640AC	Endocrinology	
BIOL 640G	Topics in Neurobiology	
BIOL 645	Discoveries in Developmental Biology	
BIOL 660	Topics in Microbiology	
BIOL 660K	Astrobiology	
BIOL 661	Pathogenic Microbiology	
BIOL 662	Virology	

BIOL 666B	Cancer Biology
BIOL 710	Glycobiology
BIOL 740D	Computing for Biologists
BIOL 740I	Experimental Design
BIOL 760	Experimental Molecular Biology Lab
BIOL 767	Mechanisms of Hormone Action
BIOL 773	Statistical Applications in Biology

## Additional Science Requirements for Biological/Biomedical Emphasis

CHEM 211	General Chemistry I	5
CHEM 212	General Chemistry II	5
CHEM 531	Organic Chemistry I	5
CHEM 532	Organic Chemistry II	5

**Total Credit Hours** **120**

- <sup>1</sup> Required major courses may also count towards General Education and/or LAS Competencies. Students will need to select additional electives to reach 120 credit hours required for graduation with assistance from an advisor.
- <sup>2</sup> See list of excluded courses (<http://catalog.wichita.edu/undergraduate/fairmount-liberal-arts-sciences/biological-sciences/>) (nonmajor courses may not be used to satisfy the requirements for the major).

## Applied Learning

Students in the BA in biological sciences with biological/biomedical emphasis program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by BIOL 418 and/or BIOL 499.