



Bachelor of Science

Major: Microbiology

2023-2024 Sample 4-Year Plan

Total Degree Requirements: 120 credits

Student _____ **Student ID#** _____ **Student Phone #** _____

Advisor _____ **Minimum GPA** 2.0 in major courses **Minor/Career Interest(s)** _____

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the [Undergraduate Catalog](#).

First Year

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 119	First Year Seminar		2	F	
BIOL 151-151L	General Biology I and Lab (SGR #6)	c. BIOL 151/L	4	F	
CHEM 112	General Chemistry I	c. MATH 114 or higher placement	3	F/S/Su	
CHEM 112L	General Chemistry I Lab		1	F/S/Su	
ENGL 101	Composition I (SGR #1)	p. Placement	3	F/S/Su	
SGR #3	Social Sciences/Diversity	See list in catalog	3		
Total Credit Hours			16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 153-153L	General Biology II and Lab		4	S	
CHEM 114	General Chemistry II	p. CHEM 112, MATH 114 or higher	3	F/S/Su	
CHEM 114L	General Chemistry II Lab		1	F/S/Su	
CMST 101	Foundations of Communication (SGR #2)		3	F/S/Su	
SGR #4	Arts and Humanities/Diversity	See list in catalog	3		
Total Credit Hours			15		

Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
	Shadowing or internship				

Second Year

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 202	Genetics & Molecular Biology	p. BIOL 103 or 153; CHEM 114/L	3	F	
BIOL 202L	Genetics & Molecular Biology Lab		1	F	
CHEM 326	Organic Chemistry I	p. CHEM 114	3	F	
CHEM 326L	Organic Chemistry I Lab	(if only want 2 sciences, wait on CHEM)	1	F	
ENGL 201	Composition II (SGR #1)	p. ENGL 101	3	F/S/Su	
MICR 233-233L	Introductory Microbiology and Lab	p. BIOL 151 & 6 cr. CHEM	4	F	
Total Credit Hours			15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 204	Introduction to Cell Biology	p. BIOL 202/L	3	S	
BIOL 204L	Introduction to Cell Biology Lab		1	S	
BIOL 290	Seminar		1	S	
CHEM 328	Organic Chemistry II	p. CHEM 326	3	S	
CHEM 328L	Organic Chemistry II Lab		1	S	
SGR #3	Social Sciences/Diversity	See list in catalog	3		
SGR #4	Arts and Humanities/Diversity	PHIL 220 Recommended	3		
Total Credit Hours			15		



Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
	Research and/or internship				

Third Year

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Applied and Environ. Microbiology	BIOL 235, MICR 450, MICR 421/L, MICR 310/L, and MICR 311/L	3-4 credits course depending	3-4		
BIOL 383	Bioethics		4	F	
CHEM 464	Biochemistry I	p. CHEM 229 or 328	3	F/SU	
MICR 494 or MICR 498	Internship or Research		2		
PHYS elective	Physics elective	p. MATH 114 or higher Discuss with advisor whether PHYS 111-113 is appropriate	4		
Total Credit Hours			16-17		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CHEM 466	Laboratory Methods - Biochemistry	p. CHEM 464	1	F/S	
MICR 332	Microbial Physiology	p. MICR 231/L or 233/L	2	S	
MICR 332L	Microbial Physiology Lab		2	S	
STAT 281	Introduction to Statistics	p. MATH 103 or higher	3	F/S/Su	
General Electives	Select from any discipline		6		
	GRE preparation if pursuing graduate school				
Total Credit Hours			14		

Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
	Research and/or Internship				
	GRE and graduate school application				

Fourth Year

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
MATH	120 or 115 or 121/L or 123 or 125 (SGR #5)		3-5		
MICR 438L	Techniques in Molecular Biology Laboratory	highly recommended	2	F	
MICR 439	Medical and Veterinary Immunology	p. MICR 231 or 233 & BIOL 204	3	F	
MICR 448	Molecular and Microbial Genetics	p. BIOL 204 or BIOL 371	4	F	
General Electives	Select from any discipline	Consider internship/research credits	2		
Total Credit Hours			14-16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Applied and Environ. Microbiology	BIOL 235, MICR 450, MICR 421/L, MICR 310/L, and MICR 311/L	3-4 credits course depending	6-7		
Infectious Disease	MICR 424, MICR 433, and MICR 440L		3		
Infectious Disease	MICR 424, MICR 433, and MICR 440L		3		
General Electives	Select from any discipline to reach 120 total credits		0-2		
Total Credit Hours			12-15		

Comments/Notes

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the [Honors program requirements](#).