



**Bachelor of Science in Natural Sciences**

**Major: Microbiology**

**2018-2019 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 151-1551L	General Biology I and Lab (SGR #6)	c. BIOL 151/L	4	F	
CHEM 112	General Chemistry I	c. MATH 102 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		
<b>Total Credit Hours</b>			16		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 153-153L	General Biology II and Lab	p. BIOL 151, AP, or B in BIOL 101	4	S	
BIOL 290 or MICR 290	Seminar		1	S	
CHEM 114	General Chemistry II	p. CHEM 112, MATH 102 or higher	3	F/S/Su	
CHEM 114L	General Chemistry II Lab		1	F/S/Su	
SGR #4	Arts and Humanities/Diversity	See list in catalog	3		
SPCM 101	Fundamentals of Speech (SGR #2)		3	F/S/Su	
<b>Total Credit Hours</b>			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 and Organismal Biology	p. BIOL 103 or 153; CHEM 114/L	3	F	
BIOL 202L	Genetics and Organismal 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	
<b>Total Credit Hours</b>			15		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 204	Genetics and Cellular Biology	p. BIOL 202/L	3	S	
BIOL 204L	Genetics and Cellular Biology Lab		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		
<b>Total Credit Hours</b>			14		

**Information Subject to Change. This is not a contract.**

p. = Course Prerequisite, c.= Corequisite  
Semester: F = Fall, S = Spring, SU = Summer



**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	Select at least 2 courses from: 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 490	Seminar		2		
PHYS 111-111L or PHYS 101-101L	Introduction to Physics I and Lab Survey of Physics and Lab	p. MATH 102 or higher Discuss with Advisor	4		
<b>Total Credit Hours</b>			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	2	S	
MICR 332L	Microbial Physiology Lab		2	S	
PHYS 113-113L	Introduction to Physics II and Lab	Not necessary if PHYS 101 taken; p. PHYS 111/L	4		
STAT 281 or MATH 125	Introduction to Statistics or Calculus II	p. MATH 102 or higher p. MATH 123	3	F/S/Su	
General Electives	Select from any discipline		3		
	GRE preparation if pursuing graduate school				
<b>Total Credit Hours</b>			15		

**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	102 and 120 or 115 or 121/L or 123 (SGR #5)		4-6		
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		
<b>Total Credit Hours</b>			15-16		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Applied and Environ. Microbiology	Select at least 2 courses from: MICR 450, MICR 421/L, MICR 310/L, and MICR 311/L	3-4 credits course depending	3-4		
ENGL 379	Technical Communication (BIOL/MICR section)	p. ENGL 201 or 281	3	F/S	
Infectious Disease	Select at least 2 courses from: BIOL 467/L, MICR 424, MICR 433, and MICR 440L		3		
Infectious Disease	Select at least 2 courses from: BIOL 467/L, MICR 424, MICR 433, and MICR 440L		3		
General Electives	Select from any discipline to reach 120 total credits		0-2		
<b>Total Credit Hours</b>			12-14		

**Comments/Notes**

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

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p. = Course Prerequisite, c.= Corequisite  
Semester: F = Fall, S = Spring, SU = Summer