



Bachelor of Sciences

Major: Biotechnology

2024-2025 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)		4	F	
CHEM 112-112L	General Chemistry I and Lab	p. MATH 114 or higher placement	4	F/S/Su	
ENGL 101	Composition I (SGR #1)	p. Placement	3	F/S/Su	
SGR #3	Social Sciences (from two different disciplines)	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 (SGR #6)		4	S	
CHEM 114-114L	General Chemistry II and Lab	p. CHEM 112, MATH 114 or higher	4	F/S/Su	
CMST 101	Foundations of Communication (SGR #2)		3	F/S/Su	
SGR #4	Arts and Humanities (from two different disciplines or a sequence of a foreign language)	See list in catalog	3		
Total Credit Hours			14		

Summer

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

SECOND YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 202-202L	Genetics & Molecular Biology and Lab	p. BIOL 103 or 153, CHEM 114/L	4	F	
BIOL 235	Introduction to Biotechnology		3	F	
MICR 233-233L	Introductory Microbiology and Lab	p. BIOL 151 & 6 cr. CHEM	4	F	
SGR #3	Social Sciences (from two different disciplines)	See list in catalog	3		
Total Credit Hours			14		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 204-204L	Introduction to Cell Biology and Lab	p. BIOL 202/L	4	S	
ENGL 201	Composition II (SGR #1)	p. ENGL 101	3	F/S/Su	
SGR #4	Arts and Humanities (from two different disciplines or a sequence of a foreign language)	Recommended PHIL 220	3		
STAT 281	Introduction to Statistics	p. MATH 114 or higher	3	F/S/Su	
BIOL 290	Seminar		1		
Total Credit Hours			14		

Summer

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

THIRD YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Applications Requirement	ABE 343/L, AS 332, AS 333/L, DS 301/L, DS 312/L, HO 414/L, PS 383/L, or MICR 440L	3-4 credits, course depending	3-4		
CHEM 326-326L	Organic Chemistry I and Lab	p. CHEM 114	4	F/S/Su	

Information Subject to Change. This is not a contract.

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



Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
MICR 438L	Techniques in Molecular Biology Laboratory	p. MICR 448 or concurrent	2	F	
MICR 448	Molecular and Microbial Genetics	p. BIOL 204 or 371; Cross-Listed: BIOL 448	4	F	
General Electives	Consider ENTR 236		3		
Total Credit Hours			16-17		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Advanced Fundamentals Requirement	BIOL 483, MICR 332 & 332/L, MICR 439, MICR 424, or VET 223/L	3-4 credits course depending	3-4		
BIOL 494 or BIOL 498	Internship or Research		2		
CHEM 328-328L	Organic Chemistry II and Lab	p. CHEM 326	4	F/S/Su	
General Electives	Select from any discipline		5		
	GRE preparation if pursuing graduate school				
Total Credit Hours			14-15		

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
BIOL 383	Bioethics	Cross-Listed: PHIL 383	4	F/S	
CHEM 464	Biochemistry I	p. CHEM 229 or 328	3	F/SU	
MATH 121-121L or MATH 123	Survey of Calculus and Lab or Calculus I (SGR #5)	p. MATH 114, 115 or placement p. MATH 115 or placement	5		
MICR 450	Applied Microbiology and Biotechnology	p. MICR 231/L or MICR 233/L	3	F	
Total Credit Hours			15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CHEM 466	Biochemistry Lab	p. CHEM 464	1		
Advanced Fundamentals Requirement	BIOL 483, MICR 332 & 332/L, MICR 439, MICR 424, or VET 223/L	3-4 credits course depending	3-4		
PHYS elective	Physics elective	p. MATH 114 or higher Discuss with advisor whether PHYS 111-113 is appropriate	4		
STAT 435	Applied Bioinformatics	p. STAT 281	3	S	
General Electives	Select from any discipline to reach 120 total credits		5		
Total Credit Hours			16-17		

COMMENTS/NOTES

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