



## Bachelor of Science in Biology – Biomedical Sciences

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### The **Biomedical Sciences** Program:

**Biomedical Sciences** differs from the overall biology curriculum in the following ways:

The capstone senior experience is different:

**Biomedical Sciences** has its own Capstone taken in the senior year:

- BIOL B4441/B441L— Biochemistry and lab (3/1 credits), req. **Capstone** Every Fall

We recommend a summer internship relevant to the field, which can be science or policy based:

The summer internship is critical to having the practical experience to 1) landing a good job, 2) getting into a research program (job or medical/graduate school), or 3) working with State or Federal agencies on graduation from USCB.

For upper level electives, you can choose as you please, but we recommend the following:

BIOL B399— Independent Research (related to Biomedical Sciences) (variable up to 3/course) different times based on student interest and faculty availability

BIOL B405/405L—Developmental Biology (and lab) 3(1) Spring Odd

BIOL B430—Histology and Lab (3/1) Spring Even

BIOL B431/B431 L—Bacteriology and Lab (3/1) Spring Even

BIOL B435— Neurobiology (+lab) (4) Fall Odd

BIOL B460/B460L – General Physiology and Lab (3/1) Every Spring

BIOL B498 - Biological Research: An Introduction (4) Every Fall (?)

BIOL B499— Special Topics (related to Biomedical Sciences) (variable up to 3/course) different times based on student interest and faculty availability

The following is a suggested program of schedule for a 4-year completion of the **Biomedical Sciences** program. You do not have to take these courses in this precise order, but the more you vary from this prescribe curriculum—the more likely a conflict in scheduling might make things more difficult for your timely completion of your degree.

**Curriculum by Year**

**Courses in Blue are Required for the Concentration (15 Credit Hours)**

Course Name	Credits	Course Name	Credits	Course Name	Credits
<b>Year 1</b>					
<b>Fall</b>		<b>Spring</b>		<b>Summer</b>	
ENGL B101 English Composition	3	ENGL B102 Engl. Comp & Lit	3		
MATH B111 or B115 Algebra or Precalculus	3(4)	MATH B115 or B141 Precalculus or Calculus I*	4		
BIOL B101 Biological Principles I	4	BIOL B102 Biol. Principles II	4		
PSYC B101 Psychology	3	CHEM B111 Gen. Chemistry I	4		
BIOL B290 Biology or B100 Honors Seminar	1				
Total Semester Hours	14 +	Total Semester Hours	15		
<b>Year 2</b>					
<b>Fall</b>		<b>Spring</b>		<b>Summer</b>	
BIOL B301 Ecology & Evolution (w/Lab) or BIOL B303 Fundamental Genetics	4 3	BIOL B302/302L Cell & Molecular Biology with Lab.	4	Internship	
CHEM B112 General Chemistry II	4	CHEM B333 Organic Chemistry I (w/Lab)	3		
MATH B141 or B142 Calculus I or II*	4	CHEM B331L Organic Chem. I Lab	1		
GE/Elective or Foreign Language	3	MATH B142 Calculus II* or GE/Elective	4(3)		
		Foreign Language	3		
Total Semester Hours	17	Total Semester Hours	14+	Hours	0
<b>Year 3</b>					
<b>Fall</b>		<b>Spring</b>		<b>Summer</b>	
BIOL B301 Ecology & Evolution (w/Lab) or BIOL B303 Fundamental Genetics	4 3	BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)	Internship	
CHEM B334 Organic Chem. II	3	BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)		
CHEM B332L Organic Chem. II Lab	1	STAT B201 Elementary Stats	3		
PHYS B2X1† Physics I	3	GE/Elective	3		
PHYS B2X1L† Physics I Lab	1	GE/Elective	3		
GE/Electives	6				
Total Semester Hours	14+	Total Semester Hours	14+	Hours	
<b>Year 4</b>					
<b>Fall</b>		<b>Spring</b>		<b>Summer</b>	
BIOL 441 Biochemistry (req'd) and	3	BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)		
BIOL 441 Biochemistry Lab (req'd)	1	BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)		
BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)	BIOL B399+ BioMed Biology Elective (w/ Lab)	3(4)		
GE/Elective	3	GE/Elective	3		
GE/Elective	3	GE/Elective	3		
GE/Elective	3				
Total Semester Hours	16+	Total Semester Hours	13+	Hours	

\*Math requirements to satisfy degree; either: MATH B141/B142, MATH B141/B170, MATH B141/B172, MATH B122/B170, or MATH B122/B172

† Either PHYS B201/201L and B202/202L **OR** PHYS B211/211L and B212/212L are acceptable.