

**SUGGESTED PROGRAM OF STUDY**  
**Bachelor of Science - Major in Chemistry<sup>1</sup> Biochemistry Concentration**  
with MATH 111 Placement    PHYS 201/202    2017 bulletin

**First Year**

**Fall Semester**

CHEM 111	(General Chem. I) <sup>1</sup>	(4)_____
MATH 111	(Pre-Calc. I)	(3)_____
ENGL 101	(Composition) <sup>2</sup>	(3)_____
BIOL 121	(Biology I) <sup>1,3</sup>	(4)_____
AFCI 101	(Critical Inquiry)	(1)_____
		15 credit hours

**Spring Semester**

CHEM 112	(General Chem. II) <sup>1</sup>	(4)_____
MATH 112	(Pre-Calc. II)	(3)_____
ENGL 102	(Comp. and Lit.) <sup>2</sup>	(3)_____
BIOL 122	(Biology II) <sup>1,3</sup>	(4)_____
History of Civ.	(either HIST 101 or 102)	(3)_____
		16 credit hours

**Second Year**

**Fall Semester**

CHEM 331	(Org Chem. I) <sup>1</sup>	(3)_____
CHEM 331L	(Org. I Lab) <sup>1</sup>	(1)_____
PHYS 201	(Gen. Physics I)	(4)_____
MATH 141	(Calc. I)	(4)_____
Amer. Gov't	(HIST 201 or 202 or POLI 201)	(3)_____
		15 credit hours

**Spring Semester**

CHEM 332	(Org Chem. II) <sup>1,3</sup>	(3)_____
CHEM 332L	(Org. Lab II) <sup>1</sup>	(1)_____
PHYS 202	(Gen. Physics II) <sup>4</sup>	(4)_____
MATH 142	(Calc. II)	(4)_____
CHEM 310	(Research Meth.) <sup>1</sup>	(1)_____
Communications	(COMM 201 or 241)	(3)_____
		16 credit hours

**Third Year**

**Fall Semester**

CHEM 321	(Quant. Analysis) <sup>1</sup>	(3)_____
CHEM 321 L	(Quant. Anal. Lab) <sup>1</sup>	(1)_____
CHEM 541	(Phys. Chem I) <sup>1,3</sup>	(3)_____
CHEM 541L	(Phys Chem. I Lab) <sup>1</sup>	(1)_____
BIOL 350/360 <sup>1,3,5</sup>	or Human. <sup>6</sup> /Soc. Science <sup>6</sup>	(4/3)_____
Second Language	<sup>17</sup>	(4)_____
		16/15 credit hours

**Spring Semester**

CHEM 311	(Intro Inorg. Chem.) <sup>1</sup>	(3)_____
CHEM 311L	(Intro Inorg. Chm Lab)	(1)_____
CHEM 542	(Phys. Chem II) <sup>1</sup>	(3)_____
CHEM 542L	(Phys Chem. II Lab) <sup>1</sup>	(1)_____
BIOL 350/360 <sup>1,3,5</sup>	or Human. <sup>6</sup> /Soc. Science <sup>6</sup>	(4/3)_____
Second Language	<sup>2 7</sup>	(4)_____
		16/15 credit hours

**Fourth Year**

**Fall Semester**

CHEM 499	(Senior Res.) <sup>1,8</sup>	(2)_____
BIOL 541	(Biochemistry) <sup>1,3</sup>	(4)_____
BIOL 502	(Cell & Molec. Biol.) <sup>1,3,7</sup>	(4)_____
Human. <sup>6</sup> /Soc. Science <sup>6</sup>		(3)_____
Human. <sup>6</sup> /Soc. Science <sup>6</sup>		(3)_____
		16 credit hours

**Spring Semester**

CHEM 499	(Senior Res) <sup>1,8</sup>	(1/2)_____
CHEM 550	(Adv. Biochemistry) <sup>1</sup>	(4)_____
CHEM 522	(Instrumental Analysis) <sup>1</sup>	(5)_____
Human. <sup>6</sup> /Soc. Science <sup>6</sup>		(3/4)_____
Human. <sup>6</sup> /Soc. Science <sup>6</sup>		(3/4)_____
		14-18 credit hours

- 1 - A grade of C or higher is required in all chemistry and biology courses counting toward the degree and concentration. Students placing in Mathematics 108 or below will successfully complete these courses before enrolling in any chemistry course.
- 2 - Students must complete English 101/102 with a grade of C or better in order to fulfill general education requirements. Students must complete ENGL 102 with a grade of C or better before taking other English courses and for any course to count as Writing Intensive including CHEM 541L, 542L, and 511L
- 3 - At least a C in BIOL A121 and CHEM A332 are prerequisites for BIOL A541. At least a C in BIOL 121/122 are pre-requisites for BIOL 350 and 360. At least a C in BIOL 121/122 and either BIOL A350 or BIOL A360 are pre-requisites for 502. Choose either BIOL 350 or 360.
- 4 - PHYS 212 and BIOL 541 can be counted toward a cognate.
- 5 - The Biochemistry Concentration (BIOL 541, BIOL 350 or 360, and BIOL 502) completes the Cognate Requirement. Students who take one more 300+ BIOL course will also complete a Biology Minor.
- 6 - At least three (3) credit hours of the degree must be in non-Western studies. See the bulletin for a complete list.
- 7 - Two (2) semesters of the same language are required.
- 8 - Completion of a thesis and seminar on the research project are required for graduation.