

## SUGGESTED PROGRAM OF STUDY

### Bachelor of Science - Major in Chemistry with Biochemistry Concentration<sup>5</sup> and Biology Minor<sup>5</sup> Pre-Med Track with MATH 141 Placement<sup>2</sup> 2017 bulletin

#### First Year

##### Fall Semester

CHEM 111	(General Chem. I) <sup>1</sup>	(4)_____
MATH 141	(Calc. I) <sup>2</sup>	(4)_____
ENGL 101	(Composition) <sup>3</sup>	(3)_____
BIOL 121	(Biology I) <sup>4</sup>	(4)_____
AFCI 101	(Critical Inquiry)	(1)_____

16 credit hours

##### Spring Semester

CHEM 112	(General II) <sup>1</sup>	(4)_____
MATH 142	(Calc. II) <sup>2</sup>	(4)_____
ENGL 102	(Comp. and Lit.) <sup>3</sup>	(3)_____
BIOL 122	(Biology II) <sup>4</sup>	(4)_____

15 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 201/211	(Physics I)	(4)_____
PSYC 101 or SOCY 101 (Intro Psych/Soc)		(3)_____
BIOL 350/360 or BIOL 305 (Biostat.) <sup>4,5,6</sup>		(4/3)_____

14/15 credit hours

##### Spring Semester

CHEM 332	(Org Chem. II) <sup>1</sup>	(3)_____
CHEM 332L	(Org. Lab II) <sup>1</sup>	(1)_____
PHYS 202/212	(Physics II) <sup>7</sup>	(4)_____
CHEM 310	(Research Meth.) <sup>1</sup>	(1)_____
BIOL 350/360 or BIOL 305 (Biostat.) <sup>4,5,6</sup>		(4/3)_____
PSYC 101/SOCY 101 (Intro Psych/Soc)		(3)_____

15/16 credit hours

#### Third Year – take MCAT Spring/summer

##### 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</sup>	(3)_____
CHEM 541 L	(Phys Chem I Lab) <sup>1</sup>	(1)_____
BIOL 541	(Biochemistry) <sup>1,4,5,7</sup>	(4)_____
Humanities <sup>7</sup> /Hist of Civ/Amer Gov't		(3)_____

15 credit hours

##### Spring Semester

CHEM 311	(Intro Inorg. Chem.) <sup>1</sup>	(3)_____
CHEM 311L	(Intro Inorg. Chm Lab) <sup>1</sup>	(1)_____
CHEM 542	(Phys. Chem II) <sup>1</sup>	(3)_____
CHEM 542L	(Phys Chem. II Lab) <sup>1</sup>	(1)_____
CHEM 550	(Adv. Biochemistry) <sup>1,5</sup>	(4)_____
Humanities <sup>8</sup> /Hist of Civ/Amer Gov't		(3)_____

15 credit hours

#### Fourth Year –apply to Med- school summer/Fall

##### Fall Semester

CHEM 499	(Senior Res.) <sup>1,9</sup>	(2)_____
BIOL 502	(Cell & Molec. Biol.) <sup>4,5</sup>	(4)_____
Communications (COMM 201 or 241)		(3)_____
Humanities <sup>8</sup> /Hist of Civ/Amer Gov't		(3)_____
Second Language <sup>10</sup>		(4)_____

16 credit hours

##### Spring Semester

CHEM 499	(Senior Res.) <sup>1,9</sup>	(1/2)_____
CHEM 522	(Instrumental Analysis) <sup>1</sup>	(5)_____
Humanities <sup>8</sup> /Hist of Civ/Amer Gov't		(3)_____
Humanities <sup>8</sup> /Hist of Civ/Amer Gov't		(3)_____
Second Language <sup>10</sup>		(4)_____

16/17 credit hours

- 1 - A grade of C or higher is required in all chemistry courses counting toward the degree. Students placing in Mathematics 108 or below will successfully complete these courses before enrolling in any chemistry course.
- 2 - Entering students who do not place into Calculus I (MATH 141) will need to take some general education courses (Math, History, Humanities, Psychology, Sociology, Communications, etc. during some summer sessions).
- 3 - 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
- 4 - 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.
- 5 - All graduates must complete either a Cognate with 12 credit hours or a Minor with 15 credit hours. The credit hours for the cognate/minor must be earned in BIOL 541, plus any combination of BIOL 305, 315, 350, 360, 502, 510, and 550 totaling 12 or 15 hours respectively including 541. To meet the requirements for a B.S. in Chemistry with a Biochemistry Concentration; the courses chosen for the cognate/minor must include BIOL 350 or 360, 502, and 541 and CHEM 522 and 550 as the 500+ chemistry electives.
- 6 - Choose either BIOL 350 or 360 and BIOL 305 for a medical school that requires a Statistics course. For medical schools that do not require a stand alone statistics course, CHEM 321/L covers the statistics required for the MCAT. In this case choose another biology course from BIOL 315/330/350/360/502.
- 7 - PHYS 212 and BIOL 541 can be counted toward a cognate.
- 8 - At least three (3) credit hours of the degree must be in non-Western studies. See the bulletin for a complete list.
- 9 - Completion of a thesis and seminar on the research project are required for graduation.
- 10 - Two (2) semesters of the same language are required.