

SUGGESTED PROGRAM OF STUDY
Bachelor of Science - Major in Chemistry¹
Engineering Concentration Track 2 - Thermodynamics
with MATH 141 Placement APHY211/212 2018 bulletins

First Year

Fall Semester

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

16 credit hours

Spring Semester

CHEM 112	(General Chem. II) ¹	(4)_____
MATH 142	(Calc. II)	(4)_____
ENGL 102	(Comp. and Lit.) ²	(3)_____
	History of Civ. (either HIST 101 or 102)	(3)_____
	Humanities or Social Science ³	(3)_____

17 credit hours

Second Year

Fall Semester

CHEM 331	(Org Chem. I) ¹	(3)_____
CHEM 331L	(Org. I Lab) ¹	(1)_____
PHYS 211	(Essentials Physics I) ⁴	(4)_____
MATH 241	(Calculus III) ⁴	(4)_____
Communications	(COMM 201 or 241)	(3)_____

15 credit hours

Spring Semester

CHEM 332	(Org Chem. II) ¹	(3)_____
CHEM 332L	(Org. Lab II) ¹	(1)_____
PHYS 212	(Essentials Physics II) ⁴	(4)_____
CHEM 310	(Research Meth.) ¹	(1)_____
	Amer. Gov't (HIST 201 or 202 or POLI 201)	(3)_____
	Human. ³ /Soc. Science ³	(3/4)_____

15/16 credit hours

Third Year

Fall Semester

CHEM 321	(Quant. Analysis) ¹	(3)_____
CHEM 321 L	(Quant. Anal. Lab) ¹	(1)_____
CHEM 541	(Phys. Chem I) ¹	(3)_____
CHEM 541 L	(Phys Chem I Lab) ¹	(1)_____
ENCP 200	(Statics) ⁴	(3)_____
Human. ³ /Soc. Science ³		(3/4)_____

14/15 credit hours

Spring Semester

CHEM 311	(Intro Inorg. Chem.) ¹	(3)_____
CHEM 311L	(Intro Inorg. Chm Lab)	(1)_____
CHEM 542	(Phys. Chem II) ¹	(3)_____
CHEM 542L	(Phys Chem. II Lab) ¹	(1)_____
ENCP 260	(Intro Mech Solids) ⁴	(3)_____
Second Language 1 ⁵		(4)_____

15 credit hours

Fourth Year

Fall Semester

CHEM 499	(Senior Res.) ^{1,7}	(2)_____
CHEM 511	(Advanced Inorg. Chem.) ^{1,6}	(4)_____
ENCP 90	(Thermodynamic Funct.) ⁴	(3)_____
BIOL 541	(Prncpl. Biochemistry)	(4)_____
Second Language 2 ⁵		(4)_____

14-17 credit hours

Spring Semester

CHEM 499	(Senior Res.) ^{1,7}	(1/2)_____
CHEM 522	(Instrumental Analysis) ^{1,6}	(5)_____
ENCP 394	(Thermo Design Proc.) ⁴	(3)_____
Human. ³ /Soc. Science ³		(3/4)_____
Human. ³ /Soc. Science ³		(3/4)_____

15-18 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 - 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 three (3) credit hours of the degree must be in non-Western studies. See the bulletin for a complete list.
- 4 - PHYS 211/212, MATH 241, ENCP 200/260/371/377 are part of the Engineering Concentration which also meets the cognate.
- 5 - Two (2) semesters of the same language are required.
- 6 - The two 500 Level Chemistry Electives required for the Engineering Concentration are CHEM 511 Adv. Inorg. (4) in Fall and CHEM 522 Inst. Anal. (5) in Spring.
- 7 - Completion of a thesis and seminar on the research project are required for graduation.

green – Engineering Concentration
purple – Chemistry Electives

brown – general education courses can be swapped with each other in order