

**B.S. in Chemistry - Traditional**
**AY 2021-2022**

	First Semester		Second Semester	
<b>1<sup>st</sup> Year</b>	CHEM 1211K (4) MATH 1551 (2) ENGL 1101 (3) GT 1000 (1) CS 1301* (3) APPH 10XX* (2) <i>Sub-Total (15)</i>	Chemical Principles I Differential Calculus English Comp. I Freshman Seminar CS Requirement Wellness Requirement	CHEM 1212K (4) CHEM 2601 (1) MATH 1552 (4) ENGL 1102 (3) BIOS 1107 (3) BIOS 1107L (1) <i>Sub-Total (16)</i>	Chemical Principles II Prof. Skills for Chemists Integral Calculus English Comp. II Biological Principles Biological Principles Lab
<b>2<sup>nd</sup> Year</b>	CHEM 2214 (4) CHEM 2311 (3) MATH 1553 (2) PHYS 2211 (4) Free Elective (3) <i>Sub-Total (16)</i>	Quantitative Analysis Organic Chemistry I Intro. Linear Algebra Intro. to Physics I	CHEM 2312** (3) CHEM 2380 (2) MATH 2551 (4) PHYS 2212 (4) Core Elective* (3) <i>Sub-Total (16)</i>	Organic Chemistry II Synthesis Lab I Multivariable Calculus Intro. to Physics II
<b>3<sup>rd</sup> Year</b>	CHEM 3411 (3) CHEM 3111 (3) CHEM 3380 (3) Core Elective* (3) Core Elective* (3) <i>Sub-Total (15)</i>	Physical Chemistry I Inorganic Chemistry Synthesis Lab II	CHEM 3412 (3) CHEM 3481 (2) CHEM 3216 (3) CHEM 3216L (2) Core Elective* (3) Free Elective (3) <i>Sub-Total (16)</i>	Physical Chemistry II Physical Chem. Lab Analytical Chemistry Analytical Chemistry Lab
<b>4<sup>th</sup> Year</b>	CHEM 4699***** (2) BCHM Elective*** (3) CHEM Elective**** (3) Tech. Elective***** (3) Core Elective* (3) <i>Sub-Total (14)</i>	Undergrad Research	CHEM Elective**** (3) Tech. Elective***** (3) Core Elective* (3) Free Elective (5) <i>Sub-total (14)</i>	

**Note:** 39 credit hours of 3XXX/4XXX level coursework is required to graduate.

Only Free Electives can be taken as Pass/Fail.

Maximum 6 hours of CHEM 2699 and 12 hours of CHEM 4699.

The last 36 hours must be taken in residence and may not be transferred in.

* Core Electives:	APPH 1040 or 1050 or 1060 (2) CS 1301 (3) Humanities electives (6 hours required) Social Sciences electives (9 hours required) History/constitution requirement: HIST 2111 (3), HIST 2112 (3), PUBP 3000 (3), INTA 1200 (3), or POL 1101 (3) (Credit not allowed for both INTA 1200 and POL 1101)
** CHEM 2312:	CHEM 2313, Bioorganic Chemistry II, can be substituted for CHEM 2312, Organic Chemistry II.
*** BCHM Elective:	CHEM 3511, Survey of Biochemistry, or CHEM 4511, Biochemistry I
****CHEM Electives:	A minimum of 6 credit hours of chemistry electives are necessary for graduation. Chemistry electives include all 3XXX/4XXX level chemistry courses that are not specifically required for the major. (Credit not allowed for CHEM 3511 with CHEM 4511 or 4512 and a maximum of 3 credit hours of CHEM 4699 can be used toward chemistry electives.)
***** Tech. Electives:	A minimum of 6 credit hours of 3XXX/4XXX level coursework in Science, Engineering, and Computing. A maximum of 3 credit hours of CHEM 4699 can be used toward technical electives. MATH 2403 or MATH 2552 may also be used for a technical elective.
***** CHEM 4699:	CHEM 4695, Undergraduate Internship, can be substituted for CHEM 4699, Undergraduate Research.

