

## 2022-2023

### Degree Map: [Chemistry – ACS Certified \(BS\)\\*](#)

#### Chemistry Program

School of Natural Sciences & Mathematics | Stockton University

USC 1 - 240 | 609-652-4546

The following is a **suggested** plan of study for completion of this degree program.

The **goal of a Degree Map** is to ensure that students graduate with no more than 128 credits and in four years.

- All students should speak with their preceptor about their academic programs.
- Transfer students may not need to take all courses in the plan; they should consult with an academic advisor.

FIRST YEAR - FALL	Credit	FIRST YEAR - SPRING	Credit
Course load	18	Course load	18
<b>Subject:</b> FRST or G-course <b>Optional Attribute:</b> Seminar and a W1	4	<b>Subject:</b> FRST or G-course <b>Attribute:</b> A, H, I, R, and/or V	4
Subject: FRST or G-course <b>Attribute:</b> A, H, I, R, and/or V	4	Subject: ASD or G-course <b>Attribute:</b> A, H, I, R, and/or V	4
CHEM 2110/2115 CHEM I: General Principles w/lab <sup>1</sup> <b>Attribute:</b> Q2	5	CHEM 2120/2125 CHEM II: Organic Structure w/lab <sup>1</sup>	5
MATH 2215 Calculus I ** <b>Attribute:</b> Q1	5	MATH 2216 Calculus II <b>Attribute:</b> Q1	5

SECOND YEAR - FALL	Credit	SECOND YEAR - SPRING	Credit
Course load	18	Course load	15
<b>Subject:</b> G-course <b>Attribute:</b> A, H, I, R, and/or V	4	CHEM 2140 CHEM IV: Theory & Application <sup>1</sup> <b>Attribute:</b> Q2	4
<b>Subject:</b> ASD or G-course <b>Attribute:</b> A, H, I, R, and/or V	4	PHYS 2230/2235 Physics II with Lab <b>Attribute:</b> Q1	6
CHEM 2130 Chemistry III: Organic Reactions <sup>1</sup>	4	BIOL 1200/1205 Cells & Molecules w/lab	5
PHYS 2220/2225 Physics I w/lab <b>Attribute:</b> Q1	6		

THIRD YEAR - FALL	Credit	THIRD YEAR - SPRING	Credit
Course load	18	Course load	14
<b>Subject:</b> G-course <b>Attribute:</b> A, H, I, R, and/or V	4	<b>Subject:</b> G-course <b>Optional Attribute:</b> A, H, I, R, and/or V	4
<b>Subject:</b> ASD or G-course <b>Attribute:</b> A, H, I, R, and/or V	4	CHEM 3320 Lab Methods II <sup>4,6</sup> <b>Attribute:</b> Q2, W2	5
CHEM 3310 Lab Methods I <sup>4,5</sup> <b>Attribute:</b> Q2	4	CHEM 3420 Physical Chemistry II <sup>4,6</sup> <b>Attribute:</b> Q2, W2	4
CHEM 3410 Physical Chemistry I <sup>4,5</sup> <b>Attribute:</b> Q2	4	CHEM 3025 Organic Techniques <sup>4,6</sup>	1
CHEM 4600 Chemistry Seminar <sup>2,4,5</sup>	2		

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FOURTH YEAR - FALL	Credit	FOURTH YEAR - SPRING	
Course load	12	Course load	16
<b>Subject:</b> G-course <b>Attribute:</b> A, H, I, R, and/or V	4	<b>Subject:</b> G-course <b>Attribute:</b> W1/W2	4
CHEM 3110 Inorganic Chemistry <sup>4</sup>	4	<b>Subject:</b> ASD or G-course <b>Attribute:</b> A, H, I, R, and/or V	4
CHEM 4800 Research <sup>7</sup>	0	CHEM 4810 Senior Thesis <sup>7</sup>	3
CHEM 3000 upper-level CHEM elective <sup>3,4</sup>	4	CHEM 3250 Biochemistry <sup>3,4</sup>	4

**GRADUATION REQUIREMENT TRACKER**

G-course	✓
GAH	
GAH	
GEN	
GIS	
GNM	
GNM	
GSS	
GSS	

Quantitative Reasoning	✓
Q1 (First year)	
Q1/Q2	
Q2	

Writing Requirement	✓
W1 (First year)	
W1/W2	
W1/W2	
W1/W2 (3000 level or higher)	

At-some-distance	✓
ASD	
ASD	
ASD	
ASD	

Attributes	✓
A	
H	
I	
R1	
R2	
V	

**ADDITIONAL INFORMATION**

- **FIRST (FRST).** All newly admitted freshmen or transfer students with 15 or fewer credits are required to fulfill the University's first-year competency requirement. The requirement may be met by demonstrating competency on the placement tests, or by passing, with a grade of C or better, all FRST courses: FRST 1101 – College Writing, 1002 – Critical Thinking and Reading, and 1103 – Quantitative Reasoning into which students have been placed. Students enrolled in FRST 1100 – Developmental Mathematics must receive a grade of C or better, and then enroll in and receive a grade of C or better in FRST 1103 to demonstrate competency. Full-time students must register for all required FRST courses in their first semester. Depending on time to completion of competency requirements, some students may need additional time for degree completion. *Note-* certain FRST courses also meet the requirements of the General Studies course distribution categories.
- **General Studies.** B.S. students must complete 48 credits of General Studies with the distribution requirement of: 8 GAH, 4 GEN, 4 GIS, 8 GNM, 8 GSS and 16 ASD (At Some Distance). See 2021-2022 Bulletin for more information. **A "G" course may fulfill multiple attributes.**
- **W1/W2- Writing requirement.** Students are required to complete (C or better) four Writing intensive (WI/W2) courses. One W1 is required in the first year and an additional three W1 or W2 with one in the upper-level division (3000-level or higher). W1/W2 courses can be found in General Studies or Program/cognate courses depending on major.
- **Q1/Q2- Quantitative Reasoning.** Students are required to complete (C or Better) three Q1/Q2 courses. One Q1 in the freshman year and at least one Q2. Q1/Q2 courses may be found in General Studies or Program/cognate course depending on major.
- **R1/R2- Race and Racism.** Students are required to pass one (1) R1 and one (1) R2 courses. R1/R2 courses may be found in General Studies or Program/cognate courses depending on major.
- **Minor program.** Students may select a Minor program of study, in consultation with their preceptor. Minor courses would replace some of the ASD or Program/cognate courses in the Degree Map.

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- **The 25% Rule** Transfer students must take 25% of their remaining credits in General Studies with a GIS required. Depending on transferred courses, individual requirements may be met (AHVI/Q, W and R) but will be evaluated on transfer.

### **Include Program specific notes**

- \*A grade of C- or higher must be earned in all CHEM courses. Students must have a minimum overall 2.0 GPA for CHEM courses and for all NAMS courses. CHEM 2110/2115 and CHEM 2120/2125 are not included when calculating the CHEM GPA. No chemistry core or cognate course may be taken P/NC and be counted toward any degree track in chemistry. The ACS certified degree track requires at least 44 credits in CHEM courses.
- \*\*Dependent on first-year math competency placement. There are several variations possible in the selection and sequence of courses in the junior and senior years. Since flexibility is based on preparation, it is important to complete Calculus I & II as early as possible.
- <sup>1</sup>It is important to note that at Stockton, Chemistry I and IV are 'General Chemistry' while CHEM II and CHEM III are 'Organic Chemistry'; thereby students may proceed to CHEM II or IV after taking CHEM I with lab.
- <sup>2</sup>Students are encouraged to enroll in Chemistry Seminar before their senior year.
- <sup>3</sup>Students must complete at least two elective CHEM 3000-level courses not part of the chemistry core. These courses are offered on a rotating schedule and availability can be found through the course catalog. For the ACS certified degree track, CHEM 3250 counts as one of these courses. Note, CHEM 3035 Survey of Instrumentation is not open to chemistry majors. Independent student research projects cannot be used to fulfill this requirement.
- <sup>4</sup>All transfer students must complete a minimum of 16 credits in Stockton Chemistry courses at the 3000-level (except CHEM 3800, 3900, 3940, 4800, 4810, or 4900) regardless of how many credits were accepted when students transferred. One course must be a laboratory intensive course (CHEM 3110, 3310, 3320, 3350, 3420 or CHEM 3025).
- <sup>5</sup>Course only offered in fall semesters.
- <sup>6</sup>Course only offered in spring semesters.
- <sup>7</sup>No more than 8 credits of research may be counted toward meeting chemistry degree requirements.