

# ACADEMIC PLANNING SHEET

## B.S. CHEMISTRY ENVIRONMENTAL CHEMISTRY EMPHASIS

COLORADO STATE UNIVERSITY – PUEBLO

2017-2018 CATALOG

Dr. Chad Kinney, Professor and Acting Department Chair

Chem Bldg. 226 (719) 549-2600 Email: [chad.kinney@csupueblo.edu](mailto:chad.kinney@csupueblo.edu)

Administrative Assistant

Chem Bldg. 111 (719) 549-2574

	Fall Semester		Spring Semester	
<b>First Year</b>	CHEM 121/L: General Chemistry I/Lab CHEM 125/L: Environmental Science/Lab BIOL 181/L: College Biology I/Lab ENG 101: English Composition I	5 4 4 3	CHEM 122/L: General Chemistry II/Lab BIOL 182/L: College Biology II/Lab ENG 102: English Composition II General Education Course	5 4 3 3
	<b>TOTAL SEMESTER HOURS</b>	<b>16</b>	<b>TOTAL SEMESTER HOURS</b>	<b>15</b>
<b>Second Year</b>	CHEM 301/L: Organic Chemistry I/Lab MATH 126: Calculus and Analytic Geometry I BIOL 301/L: General Microbiology/Lab	5 5 5	CHEM 302/L: Organic Chemistry II/Lab MATH 224: Calculus and Analytic Geometry II PHYS 221/L: General Physics/Lab	5 5 5
	<b>TOTAL SEMESTER HOURS</b>	<b>15</b>	<b>TOTAL SEMESTER HOURS</b>	<b>15</b>
<b>Third Year</b>	CHEM 221/L: Inorganic Chemistry I/Lab CHEM 322: Physical Chemistry II PHYS 222/L: General Physics II/Lab General Education Course	4 3 5 3	CHEM 321: Physical Chemistry I Chemistry Electives Elective General Education Course	3 1 3 6
	<b>TOTAL SEMESTER HOURS</b>	<b>15</b>	<b>TOTAL SEMESTER HOURS</b>	<b>13</b>
<b>Fourth Year</b>	CHEM 317/L: Quantitative Analysis/Lab CHEM 311: Biochemistry CHEM 425/L*: Environmental Chemistry/Lab BIOL 465*: Environmental Toxicology	5 3 5 3	CHEM 419/L: Instrumental Analysis/Lab CHEM 493: Seminar Chemistry Elective General Education Course	5 1 3 6
	<b>TOTAL SEMESTER HOURS</b>	<b>16</b>	<b>TOTAL SEMESTER HOURS</b>	<b>15</b>

- **Note CHEM 425/L is generally offered every other academic year and BIOL 465 is offered Fall of even years**

The Academic Planning Sheet is designed as a guide for students planning their course selections. The information on this page provides only a suggested schedule. Actual course selections should be made with the advice and consent of an academic adviser. While accurately portraying the information contained in the college catalog, this form is not considered a legal substitute for that document. Students should become familiar with the catalog in effect at the time in which they entered the institution.

**General Education Requirements:** 24 semester hours

- ENG 101: English Composition I (3)
- ENG 102: English Composition II (3)
- Mathematics Course (3)
  - o *MATH 126: Calculus and Analytic Geometry I (5)*
- Humanities Courses (9)
- History Course (3)
- Social Sciences Courses (6)
- Natural and Physical Sciences Courses (8) (2 courses with labs)
- CHEM 121/L: General Chemistry/Lab I (5)*
- CHEM 122/L: General Chemistry/Lab II (5)*

<b>Course Completed elsewhere</b>	<b>CSU-Pueblo equivalent</b>
(Ex: English 101)	(Ex: English 101)

**Major Requirements:****Chemistry Major Core Courses: 57 semester hours**

- CHEM 121/L: General Chemistry/Lab I (5)*
- CHEM 122/L: General Chemistry/Lab II (5)*
- CHEM 221/L: Inorganic Chemistry/Lab (4)
- CHEM 301/L: Organic Chemistry/Lab I (5)
- CHEM 302/L: Organic Chemistry/Lab II (5)
- CHEM 317L: Quantitative Analysis/Lab (5)
- CHEM 321\*: Physical Chemistry I (3)
- CHEM 322\*: Physical Chemistry II (3)
- CHEM 419L: Instrumental Analysis/Lab (5)
- CHEM 493: Seminar (1)

**Institutional Graduation Requirements:**

- Total of 120 semester hours, minimum.
- Complete a minimum of 40 semester hours in upper-division courses.
- Overall cumulative grade point average of 2.00.
- A minimum of 60 semester hours must be earned from a four -year institution. Of these, a minimum of 30 semester hours of credit must be earned in residence.
- Of the last 30 semester credits earned immediately preceding graduation, no more than 15 may be completed at other colleges or universities.
- All other requirements as specified in the Catalog.

**Additional Major Graduation Requirements:**

- Students majoring in chemistry must receive a grade of “C” or better in all core chemistry courses.
- Proficiency in physics, math and computer science is essential for understanding and applying chemical principles; therefore, graduates must complete approved math and physics courses with an overall GPA of 2.000 or better.

- CHEM 125/L: Environmental Science/Lab (4)
- CHEM 311: Biochemistry (5)
- CHEM 425/L: Environmental Chemistry/Lab (5)
- Approved Chem Electives (4)

\*CHEM 322 is not a continuation of CHEM 321 and can be taken before CHEM 321.

**Other Required Courses: 36 semester hours**

- BIOL 181/L: College Biology/Lab I (4)
- BIOL 182/L: College Biology/Lab II (4)
- BIOL 301/L: General Microbiology/Lab (5)
- BIOL 465: Environmental Toxicology (5)
- MATH 126: Calculus and Analytic Geometry I (5)*
- MATH 224: Calculus and Analytic Geometry II (5)
- PHYS 221/L: General Physics I/Lab I (5)
- PHYS 222/L: General Physics II/Lab II (5)

(Courses *italicized* meet General Education requirements)

**Free Electives: 3 semester hours**

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