

**NATURAL SCIENCES**  
**Chemistry Option, B.A. (120 Units)**

Valid for Catalog Years: 2018/2019 to Present

\*Official planning guide approved by the College of Science & Math

For assistance or to schedule an advising appointment, please contact the

**CSM Advising and Resources Center**  
at 559-278-4150, Science I 136  
**Department of Science & Mathematics Interdisciplinary Courses and Programs:**

	Freshman		Sophomore		Junior		Senior	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>Units</b>	<b>15</b>	<b>16</b>	<b>14-16</b>	<b>15</b>	<b>14-19</b>	<b>16-17</b>	<b>17-18</b>	<b>13-14</b>
<b>Milestones</b>								
<b>General Education</b>	<b>A2 (3 Units)</b> Written Communication *Must pass with a C or better; ENGL 10 recommended	<b>A1 (3 Units)</b> Oral Communication *Must pass with a C or better	<b>C1 (3-4 Units)</b> Arts	<b>D1 (3 Units)</b> American History	<b>D3 (3 Units)</b> Social Science	<b>C1/C2 (3-4 Units)</b> Arts or Humanities	<b>IC (3-4 Units)</b> Arts & Humanities	<b>ID (3-4 Units)</b> Social, Political, & Economic Institutions
	<b>A3 (3 Units)</b> Critical Thinking *Must pass with a C or better		<b>C2 (3-4 Units)</b> Humanities	<b>D2 (3 Units)</b> American Government		<b>E1 (3 Units)</b> Lifelong Understanding & Self Development		
<b>Major</b>	<b>GE Area B1</b> <b>CHEM 1A (3 Units)</b> Physical Sciences [Pre-Req: High school chemistry. May be taken concurrently: GE B4; CHEM 1A] *Not open to students with credit in CHEM 1B	<b>GE Area B2</b> <b>BIOL 1A (4 Units)</b> Life Sciences	<b>BIOL 1B (3 Units)</b> [Pre-Req: BIOL 1A; first-time enrollees must take BIOL 1BL concurrently]	<b>CHEM 128A (3 Units)</b> [Pre-Req: CHEM 1B or 8 (C or better) or instructor permission]	<b>GE Area IB</b> <b>EES 168 (3 Units)</b> Physical Universe & Its Life Forms [Pre-Req: GE Foundation & Breadth Area B]	<b>CHEM 128B (3 Units)</b> [Pre-Req: CHEM 128A (C or better)]	<b>CHEM 108 (4 Units)</b> [Pre-Req: MATH 76; CHEM 8 or 128A; PHYS 2A, 2B or 4A, 4AL, 4B, 4BL, 4C; MATH 77 recommended]	<b>BIOL 101 (4 Units)</b> [Pre-Req: BIOL 1A, 1B; PSYCH 42 or MATH 101; MATH 70 or equivalent recommended]

**NATURAL SCIENCES**  
**Chemistry Option, B.A. (120 Units)**

Valid for Catalog Years: 2018/2019 to Present

\*Official planning guide approved by the College of Science & Math

For assistance or to schedule an advising appointment, please contact the

**CSM Advising and Resources Center**  
at 559-278-4150, Science I 136  
**Department of Science & Mathematics Interdisciplinary Courses and Programs:**

	Freshman		Sophomore		Junior		Senior	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Units	15	16	14-16	15	14-19	16-17	17-18	13-14
Major	<b>GE Area B3</b> <b>CHEM 1AL</b> <b>(2 Units)</b> Lab [Pre-Req: CHEM 1A (may be taken concurrently)]	<b>CHEM 1B</b> <b>(3 Units)</b> [Pre-Req: CHEM 1A & 1AL (both passed with a C or better); CHEM 1BL (may be taken concurrently)]	<b>BIOL 1BL</b> <b>(1 Unit)</b> [Pre-Req: First-time enrollees must take BIOL 1B concurrently]	<b>CHEM 129A</b> <b>(2 Units)</b> [Pre-Req: CHEM 8 or 128A (C or better; may be taken concurrently)]	<b>CHEM 102</b> <b>(5 Units)</b> [Pre-Req: CHEM 1B (C or better); CHEM 128A] or <b>CHEM 105</b> <b>(4 Units)</b> [Pre-Req: CHEM 1A (C or better), CHEM 3A (B or better), or instructor permission]	<b>PHYS 2B</b> <b>(4 Units)</b> [Pre-Req: PHYS 2A]	<b>CHEM 150</b> <b>(3 Units)</b> [Pre-Req: CHEM 3B, 8, or CHEM 128A & 128B] or <b>CHEM 155A</b> <b>(3 Units)</b> [Pre-Req: CHEM 128B]	<b>NSCI 106</b> <b>(3 Units)</b>
	<b>GE Area B4</b> <b>MATH 75</b> <b>(4 Units)</b> Quantitative Reasoning *See course catalog for prerequisite requirements	<b>CHEM 1BL</b> <b>(2 Units)</b> [Pre-Req: CHEM 1B (may be taken concurrently)]		<b>EES 1</b> <b>(4 Units)</b> [Pre-Req: MATH 4R or second-year high school algebra recommended]	<b>PHYS 2A</b> <b>(4 Units)</b> [Pre-Req: DS 71, MATH 75, MATH 70, or department permission]		<b>PSCI 21</b> <b>(4 Units)</b> [Pre-Req: Second-year high school algebra recommended]	
			<b>MATH 76</b> <b>(4 Units)</b> [Pre-Req: MATH 75 or MATH 75A & B]					

**NATURAL SCIENCES**  
**Chemistry Option, B.A. (120 Units)**

Valid for Catalog Years: 2018/2019 to Present

\*Official planning guide approved by the College of Science & Math

For assistance or to schedule an advising appointment, please contact the

the  
**CSM Advising and Resources Center**  
at 559-278-4150, Science I 136  
**Department of Science & Mathematics Interdisciplinary Courses and Programs:**

	Freshman		Sophomore		Junior		Senior	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
<b>Units</b>	<b>15</b>	<b>16</b>	<b>14-16</b>	<b>15</b>	<b>14-19</b>	<b>16-17</b>	<b>17-18</b>	<b>13-14</b>
<b>Additional Graduation Requirements</b>			<b>MATH 101 (4 Units)</b> [Pre-Req: MATH 70, 75, or 75A & B] *No credit if taken after MATH 108 or <b>PSYCH 42 (4 Units)</b>		<b>UDWS (0-4 Units)</b> *Upper Division Writing Exam OR "W" Course (must pass with a C or better)	<b>Elective</b>	<b>Elective</b>	<b>MI (3 Units)</b> Multicultural/International

**FOOTNOTES:**

**Prerequisites/Corequisites:** Other restrictions may apply. Please see your course catalog for detailed prerequisite/corequisite requirements.

**Electives (9-10 units):** Units in this area may be used toward a double major or minor. Students must earn a minimum of 120 units total to graduate. The number of required elective units may vary, depending on the amount of units earned from major and GE courses.

**Upper Division Writing Skills requirement (UDWS):** All undergraduate students must demonstrate competency in writing skills by passing the Upper Division Writing Exam (UDWE) or by obtaining a C or better in an approved upper division writing course, identified by the letter "W."

**Substitutions:** If substitutions/exceptions/waivers are made for any major courses that also meet GE and/or the Multicultural/International graduation requirement, the student is responsible for completing additional courses to satisfy the respective areas (GE and/or MI). This also includes the upperdivision writing requirement.