

# SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2020-21

## *Chemistry: Associate in Science for Transfer CSU*

What gives fireworks their color? How does a drug test work? Chemistry is the central science behind these questions and many more. The chemistry major focuses on the study and creation of materials, pharmaceuticals, biological systems, environmental systems, and industrial processes.

**Please see a Pathways Counselor:** Create an education plan customized to meet your needs. [Contact a Counselor](#)

### **Transfer Majors/Award Focus**

- Chemistry, A.S.-T CSU, UC

### **GE Pattern/Units**

- GE Pattern: B
- Total Units: 67



**Program maps** indicate the major coursework and recommended general education courses to fulfill your degree in 2 years (approximately 15 units/semester or 30 units/year). If you are a part-time student, start Semester 1 courses and follow the course sequence. Some of the courses listed may be substituted by another course. Please view these options in the official course [catalog](#).

### **Semester 1**

**16 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	MATH-211	Analytic Geometry and Calculus I	4
<input type="checkbox"/>	ENGL-101	College Composition	4
<input type="checkbox"/>	CHEM-101	General Chemistry I	5
<input type="checkbox"/>	COMM-100 or COMM-104	Public Speaking or Argumentation and Debate	3

### **Semester 2**

**15 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	CHEM-102	General Chemistry II	5
<input type="checkbox"/>	ENGL-103	Critical Thinking and Writing	3
<input type="checkbox"/>	MATH-212	Analytic Geometry and Calculus II	4
<input type="checkbox"/>	PS-101	Introduction to American Government and Politics	3

### **Career Options**

Chemical Engineer (B, M, D)

Chemical Technician (A, B)

Biochemistry and biophysicist (B, D)

Find more careers: [msjc.emsicc.com](http://msjc.emsicc.com)

Required Education: SM: some college; C: Certificate; A: Associate,

B: Bachelor's, M: Master's; D: Doctorate



### **Financial Aid**

Financial aid is determined by the number of credit hours you take in a semester. Maximize your financial aid by taking 12-15 units per semester.

**Summer 1 – STEM ONLY****3 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	HIST-111 or HIST-112	U.S. History to 1877 or U.S. History Since 1865	3

**Semester 3****18 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	MATH-213	Analytic Geometry and Calculus III	5
<input type="checkbox"/>	BIOL-150	General Biology I	4
<input type="checkbox"/>	CHEM-112	Organic Chemistry I	5
<input type="checkbox"/>	PHY-201	Mechanics and Wave Motion	4

**Semester 4****15 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	CHEM-113	Organic Chemistry II	5
<input type="checkbox"/>	PHY-202	Electricity and Magnetism	4
<input type="checkbox"/>	ART-104	World Art	3
<input type="checkbox"/>	HIST-104	World History Since 1500	3

**Work Experience**

Sign up for a special project or internship opportunity. Gain [work experience](#) and earn credits.