

SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2021-22

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: 65



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

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**16 Units**

| ✓ | COURSE | TITLE | UNIT |
|--------------------------|--------------------------------------|--|------|
| <input type="checkbox"/> | HIST-160 or LIT-275 or LIT-280 | Black History in the American Context or Latinx/Chicanx Literature or Multiethnic Literature | 3 |
| <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.