

SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2023-24



Chemistry: Associate in Science for Transfer UC

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: Transfer degrees require a minimum of 60 semester CSU transferable units or UC semester transferable units with a minimum 2.0 GPA overall. [Contact a Counselor](#) to create an education plan customized to meet your needs.

Transfer Majors/Award Focus

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

GE Pattern/Units

- GE Pattern: C
- Total Units: 66

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

18 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, or HIST-111, or HIST-112	Introduction to American Government and Politics, U.S. History to 1877, or U.S. History Since 1865	3
<input type="checkbox"/>	PHIL-101 or ANTH-145	Introduction to Philosophy or Introduction to Linguistic Anthropology	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**4 Units**

	COURSE	TITLE	UNIT
<input type="checkbox"/>	SPAN-101 or FREN-101 or ASL-100	Elementary Spanish I or Elementary French I or American Sign Language I	4

Semester 3**13 Units**

	COURSE	TITLE	UNIT
<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"/>	PS 103/ETHS 103, HIST 103/ETHS 160, LIT 240/ETHS 240, LIT 275/ETHS 275, or LIT 280/ETHS 280	Ethnic Politics in America Black History in American Context American Indian Literature Latinx/Chicanx Literature or Multiethnic Literature	3

Notes:

Language Requirement: For students who did not meet the LOTE requirement in high school, they may fulfill Area 6 by demonstrating proficiency by completing ASL-100 American Sign Language I, FREN-101 Elementary French I or SPAN-101 Elementary Spanish I with a grade C or better. Languages other than English for Native Speakers are also acceptable for meeting this requirement.

Although not an IGETC requirement, MSJC may certify completion of the CSU graduation requirement in U.S. History, Constitution and American Ideals with PS-101/101H and HIST-111/111H or HIST-112/112H. Courses used to meet this requirement may also be used to satisfy IGETC Subject Area 4 requirements.

Work Experience

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