

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



Computer/Information Systems Computer Science: Associate in Science for Transfer UC

Computers are ubiquitous. They are in our hospitals, our educational institutions, our businesses, and our homes. In CIS you will explore how digital solutions are analyzed, developed, and implemented into artifacts that humans use every day. As a CIS graduate, the world will be your oyster. Your skills are in great demand in all fields of business, industry, and education.

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

- Computer Science, A.S.-T CSU, CSUSM, UC
- Computer Information Systems, A.S., Focus: Authoring, Networking, Programming: General, Database, Web
- Internet Authoring, Networking, Programming Certificate

GE Pattern/Units

- GE Pattern: Option C
- Total Units: 64

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

18 Units

	COURSE	TITLE	UNIT
<input type="checkbox"/>	CSIS-113A	C++ Programming - Level 1	3
<input type="checkbox"/>	MATH-211	Analytic Geometry and Calculus I	4
<input type="checkbox"/>	ENGL-101	College Composition	4
<input type="checkbox"/>	BIOL 100 or BIOL 150	Human Biology or General Biology I	4
<input type="checkbox"/>	PSYC-101	Introduction to Psychology	3

Semester 2

16 Units

	COURSE	TITLE	UNIT
<input type="checkbox"/>	CSIS-211	Introduction to Data Structures and Algorithms	3
<input type="checkbox"/>	MATH-212	Analytic Geometry and Calculus II	4
<input type="checkbox"/>	ENGL-103	Critical Thinking and Writing	3
<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"/>	COMM-100	Public Speaking	3

Career Options

Networking & IT Administration (A, B)
Web Development (A, B)
Programming (A, B)

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.

Semester 3**16 Units**

 COURSE	TITLE	UNIT
<input type="checkbox"/> CSIS-118B	Computer Organization & Assembly Language	3
<input type="checkbox"/> ANTH-145	Introduction to Linguistic Anthropology	3
<input type="checkbox"/> PHY-201	Mechanics and Wave Motion	4
<input type="checkbox"/> PS 103/ETHS 103, HIST 160/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
<input type="checkbox"/> ART-100	Art Appreciation	3

Semester 4**14 Units**

 COURSE	TITLE	UNIT
<input type="checkbox"/> CSIS-213	Discrete Structures	3
<input type="checkbox"/> PHY-202	Electricity and Magnetism	4
<input type="checkbox"/> PHIL-101	Introduction to Philosophy I	3
<input type="checkbox"/> SPAN-101 or FREN-101 or ASL-100	Elementary Spanish I or Elementary French I or American Sign Language I	4

Notes:

Recommended: Students should take courses the summer before the Fall start of the semester.

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.