# SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2022-23



# Computer/Information Systems Computer Science: Associate in Science for Transfer CSU

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: Create an education plan customized to meet your needs. Contact a Counselor

## **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: 60



**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 15 Units

✓	COURSE	TITLE	UNIT
	CSIS-113A	C++ Programming - Level 1	3
	MATH-211	Analytic Geometry and Calculus I	4
	ENGL-101	College Composition	4
	BIOL-150	General Biology I	4

Semester 2 16 Units

<b>~</b>	COURSE	TITLE	UNIT
	CSIS-211	Introduction to Data Structures and Algorithms	3
	MATH-212	Analytic Geometry and Calculus II	4
	ENGL-103	Critical Thinking and Writing	3
	PS-101	Introduction to American Government and Politics	3
	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

<b>~</b>	COURSE	TITLE	UNIT
	CSIS-118B	Computer Organization & Assembly Language	3
	ANTH-145	Introduction to Linguistic Anthropology	3
	PHY-201	Mechanics and Wave Motion	4
	HIST-112	U.S. History Since 1865	3
	ART-100	Art Appreciation	3

Semester 4 16 Units

<b>V</b>	COURSE	TITLE	UNIT
	CSIS-213	Discrete Structures	3
	PHY-202	Electricity and Magnetism	4
	PHIL-101	Introduction to Philosophy I	3
	PSYC-101	Introduction to Psychology	3

#### **Notes:**

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

## Work Experience

Sign up for a special project or internship opportunity. Gain  $\underline{\text{work experience}}$  and earn credits.