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



## Computer Information Systems: Associate in Science – Non-Transfer Focus: Programming Web

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 A

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 <u>catalog</u>.

✓	COURSE	TITLE	UNIT
	ENGL-101	College Composition	4
	MATH-105	College Algebra	4
	CSIS-101 or CSIS 111B	Introduction to Computers and Data Processing or Fundamentals of Computer Programming	3
	CSCR-100	College Success and Career Readiness	3

Semester 2	15 Units

<b>~</b>	COURSE	TITLE	UNIT
	CSIS-118B	Computer Organization & Assembly Language	3
	PS-101	Introduction to American Government and Politics	3
	GEOG-108	World Regional Geography	3
	CSIS-201	System Analysis and Design	3
	ART-100	Art Appreciation	3

#### **Career Options**

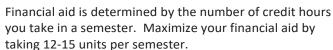
Networking & IT Administration (A, B) Web Development (A, B) Programming (A, B)

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



Semester 3 16 Units

<b>~</b>	COURSE	TITLE	UNIT
	CSIS-113B	Java Programming - Level 1	3
	CSIS-123B	Java Programming - Level 2	3
	BIOL-100 or BIOL-115	Human Biology or Topics in Biology	4
	CSIS-160	Information Security Systems	3
	COMM-103	Interpersonal Communication	3

Semester 4 15 Units

<b>✓</b>	COURSE	TITLE	UNIT
	CSIS-115A or CSIS-114A	Web Development - Level 1 or SQL Programming - Level 1	3
	CSIS-525 or CSIS-124A	Web Development - Level 2 or SQL Programming - Level 2	3
	CSIS-211	Introduction to Data Structures and Algorithms <sup>1</sup>	3
	CSIS-213	Discrete Structures	3
	ECON-201 or PSYC-101	Principles of Macroeconomics or Introduction to Psychology	3

## **Notes:**

## Work Experience

Sign up for a special project or internship opportunity. Gain work experience and earn credits.

 $<sup>^1 \</sup>text{Take second 8 weeks: CSIS-525 Web Development - Level 2, CSIS-124A SQL Programming - Level 2, CSIS-123B Java Programming - Level 2} \\$