

# SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2020-21

## *Computer/Information Systems* *Computer Science: Associate in Science for Transfer* *CSUSM – Option B*

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 B
- Total Units: 69



**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"/>	CSIS-123A	C++ Programming - Level 2	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](http://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****3 Units**

✓	COURSE	TITLE	UNIT
<input type="checkbox"/>	COMM 108	Intercultural Communication	3

**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"/>	HIST-112	U.S. History Since 1865	3
<input type="checkbox"/>	MATH-218	Linear Algebra	3

**Semester 4****16 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"/>	ART-100	Art Appreciation	3
<input type="checkbox"/>	PS-101	Introduction to American Government and Politics	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 [work experience](#) and earn credits.