

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

Computer Information Systems: Programming Certificate Focus: General & Engineering

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.


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: n/a
- Total Units: 21



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

9 Units

| ✓ | COURSE | TITLE | UNIT |
|--------------------------|---------------------------|---|------|
| <input type="checkbox"/> | CSIS-113A or CSIS-113C | C++ Programming - Level 1 or C# Programming - Level 1 | 3 |
| <input type="checkbox"/> | CSIS-123A or CSIS-123C | C++ Programming - Level 2 ¹ or C# Programming - Level 2 | 3 |
| <input type="checkbox"/> | CSIS-101 | Introduction to Computers and Data Processing | 3 |

Semester 2

12 Units

| ✓ | COURSE | TITLE | UNIT |
|--------------------------|-----------|--|------|
| <input type="checkbox"/> | CSIS-201 | System Analysis and Design | 3 |
| <input type="checkbox"/> | CSIS-118B | Computer Organization & Assembly Language | 3 |
| <input type="checkbox"/> | CSIS-111B | Fundamentals of Computer Programming | 3 |
| <input type="checkbox"/> | CSIS-211 | Introduction to Data Structures and Algorithms | 3 |

Notes:

¹Take second 8 weeks.

Work Experience

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


Career Options

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