

SCIENCE, MATH & ENGINEERING PATHWAY PROGRAM MAP: CATALOG YEAR: 2021-22

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

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"/> | PS-103 or HIST-160 or LIT-275 or LIT-280 | Ethnic Politics in America or Black History in the American Context or Latinx/Chicanx Literature or Multiethnic Literature | 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.