***Computer Information Systems:*** *Associate in Science – Non-Transfer*

*Focus: Programming General*

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](https://www.msjc.edu/hub/)

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 [catalog](https://catalog.msjc.edu/instructional-programs/).

***Semester 1 14 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | ENGL-101 | College Composition | 4 |
| ⬜ | MATH-105 | College Algebra | 4 |
| ⬜ | CSIS-101 | Introduction to Computers and Data Processing | 3 |
| ⬜ | CSCR-100 | College Success and Career Readiness | 3 |

***Semester 2 15 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | 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](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.

***Semester 3 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-113A | C++ Programming - Level 1 | 3 |
| ⬜ | CSIS-123A | C++ Programming - Level 21 | 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***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-115A or  CSIS-111B or  CSIS-114A | Web Development - Level 1 or  Fundamentals of Computer Programming or  SQL Programming - Level 1 | 3 |
| ⬜ | CSIS-525 or  CSIS-211 or  CSIS-124A | Web Development - Level 21 or  Introduction to Data Structures and Algorithms1 or  SQL Programming - Level 21 | 3 |
| ⬜ | CSIS-113C | C# Programming - Level 1 | 3 |
| ⬜ | CSIS-123C | C# Programming - Level 21 | 3 |
| ⬜ | CSIS-164 | Cybersecurity: Ethical Hacking | 3 |

Notes***:***

## 1 Take second 8 weeks: CSIS-525 Web Development - Level 2, CSIS-211 Introduction to Data Structures and Algorithms, CSIS-124A SQL Programming - Level 2, CSIS-123A C++ Programming - Level 2

Work Experience

Sign up for a special project or internship opportunity. Gain [work experience](https://msjc.edu/careereducation/cwee/index.html) and earn credits.