***Computer/Information Systems***

***Computer Science:*** *Associate in Science for Transfer*

*UC*

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 C
* Total Units: 64

**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 18 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-113A | C++ Programming - Level 1 | 3 |
| ⬜ | MATH-211 | Analytic Geometry and Calculus I | 4 |
| ⬜ | ENGL-101 | College Composition | 4 |
| ⬜ | BIOL 100 or  BIOL 150 | Human Biology or  General Biology I | 4 |
| ⬜ | PSYC-101 | Introduction to Psychology | 3 |

***Semester 2 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-211 | Introduction to Data Structures and Algorithms | 3 |
| ⬜ | MATH-212 | Analytic Geometry and Calculus II | 4 |
| ⬜ | ENGL-103 | Critical Thinking and Writing | 3 |
| ⬜ | PS-101 | Introduction to American Government and Politics | 3 |
| ⬜ | 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.

***Semester 3 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-118B | Computer Organization & Assembly Language | 3 |
| ⬜ | ANTH-145 | Introduction to Linguistic Anthropology | 3 |
| ⬜ | PHY-201 | Mechanics and Wave Motion | 4 |
| ⬜ | HIST-112 | U.S. History Since 1865 | 3 |
| ⬜ | ART-100 | Art Appreciation | 3 |

***Semester 4 14 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | CSIS-213 | Discrete Structures | 3 |
| ⬜ | PHY-202 | Electricity and Magnetism | 4 |
| ⬜ | PHIL-101 | Introduction to Philosophy I | 3 |
| ⬜ | SPAN-101 or  FREN-101 or  ASL-100 | Elementary Spanish I or  Elementary French I or  American Sign Language I | 4 |

Notes***:***

## Recommended: Students should take courses the summer before the Fall start of the semester.

## Language Requirement: For students who did not meet the LOTE requirement in high school, they may fulfill Area 6 by demonstrating proficiency by completing ASL-100 American Sign Language I, FREN-101 Elementary French I or SPAN-101 Elementary Spanish I with a grade C or better. Languages other than English for Native Speakers are also acceptable for meeting this requirement.

Work Experience

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