***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:*** Transfer degrees require a minimum of 60 semester CSU transferable units or UC semester transferable units with a minimum 2.0 GPA overall. [Contact a Counselor](https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.msjc.edu%2Fhub%2F&data=05%7C01%7Cmbasgall%40msjc.edu%7C00671a05705e42bdeb1608db5b3ae60f%7C5fbf5385e264415f8989a6bdac9eadd3%7C0%7C0%7C638204080773150618%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=9Ex3X%2BRrsmq8ElINt4fc52T6Qj4sUd5Z9Umr8EokHlQ%3D&reserved=0) to create an education plan customized to meet your needs.

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

***Semester 1 18 Units***

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

***Semester 2 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| a | COURSE | TITLE | UNIT |
| c | CSIS-211 | Introduction to Data Structures and Algorithms | 3 |
| c | MATH-212 | Analytic Geometry and Calculus II | 4 |
| c | ENGL-103 | Critical Thinking and Writing | 3 |
| c | CSIS-123A | C++ Programming - Level 2 | 3 |
| c | COMM-100 | Public Speaking | 3 |

Career Options

Networking & IT Administration (A, B)

Programming (A, B)

Find more careers: [msjc.emsicc.com](http://msjc.emsicc.com)

Required Education: A: Associate, B: Bachelor’s

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***

|  |  |  |  |
| --- | --- | --- | --- |
| a | COURSE | TITLE | UNIT |
| c | PS-101 | Introduction to American Government and Politics | 3 |

***Semester 3 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| a | COURSE | TITLE | UNIT |
| c | CSIS-118B | Computer Organization & Assembly Language | 3 |
| c | ANTH-145 | Introduction to Linguistic Anthropology  | 3 |
| c | PHY-201 | Mechanics and Wave Motion | 4 |
| c | HIST-112 | U.S. History Since 1865 | 3 |
| c | MATH-218 | Linear Algebra | 3 |

***Semester 4 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| a | COURSE | TITLE | UNIT |
| c | CSIS-213 | Discrete Structures | 3 |
| c | PHY-202 | Electricity and Magnetism | 4 |
| c | PHIL-101 | Introduction to Philosophy I | 3 |
| c | ART-100 | Art Appreciation | 3 |
| c | PS-103/ETHS-103,HIST-160/ETHS-160,LIT-275/ETHS-275, orLIT-280/ETHS-280 | Ethnic Politics in America orBlack History in the American Context orLatinx/Chicanx Literature orMultiethnic Literature | 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](https://msjc.edu/careereducation/cwee/index.html) and earn credits.