***Geographic Information Science:*** *Associate in Science – Non-Transfer*

Have you ever wondered how Starbucks decides where to put its next “coffee shop” or where Amazon decides to try out its drone package delivery systems? Who designs all the layers on the latest version of MineCraft or Fortnite? They use people who have developed skills in collecting and analyzing geospatial information. The study of geospatial information is referred to as Geographic Information Science, GIS. It is a rapidly growing area of study that can lead to rewarding careers in many different disciplines.

***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

* Geographic Information Science, A.S.
* Geographic Information Science, Certificate, Focus: General, Fire & Safety, Water Industry

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 16 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | GEOG-105 | Map Interpretation and Spatial Analysis | 3 |
| ⬜ | ENGL-101 | College Composition | 4 |
| ⬜ | PS-101 | Introduction to American Government and Politics | 3 |
| ⬜ | LEAD-500 or  CSCR-116 | Leadership Development or  Integrative Career/Life Planning | 3 |
| ⬜ | GEOG-582 | Programming for GIS | 3 |

***Semester 2 15 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | GEOG-115 | Introduction to Geographic Information Science | 3 |
| ⬜ | CSIS-116E or  CSIS-114A | Python Programming - Level 1 or  SQL Programming - Level 1 | 3 |
| ⬜ | MATH-140 | Introduction to Statistics | 3 |
| ⬜ | CSIS-126E or  CSIS-124A | Python Programming - Level 2 1 or  SQL Programming - Level 2 | 3 |
| ⬜ | GEOG-584 | Water Management with GIS | 3 |

## 1Take second 8 weeks

Career Options

Geographic Information Systems Technicians (B, M)

Geospatial Information Scientists and Technologists (B, M)

Geodetic Surveyors (C, B, M)

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 15 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | GEOG-520 | Intermediate Geographic Information Science | 3 |
| ⬜ | COMM-103 | Interpersonal Communication | 3 |
| ⬜ | GEOG-585 | GIS for Catastrophes | 3 |
| ⬜ | GEOG-111 | Geography of California | 3 |
| ⬜ | GEOG-583 | Spatial Database Design and Management | 3 |

***Semester 4 14 Units***

|  |  |  |  |
| --- | --- | --- | --- |
| ✔ | COURSE | TITLE | UNIT |
| ⬜ | GEOG-525 | Advanced Geographic Information Science ( | 3 |
| ⬜ | ART-104 | World Art | 3 |
| ⬜ | GEOG-586 | GIS for Web Applications | 3 |
| ⬜ | GEOG-108 | World Regional Geography | 3 |
| ⬜ | GEOG-103 | Field Studies in Geography | 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.