

# GEOGRAPHY & GEOGRAPHIC INFORMATION SCIENCE

## San Jacinto Campus

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Degree(s)

### Transfer:

 A.A.-T in Geography for Transfer

31869 AA.GEOG.OPTBAAT or 31869 AA.GEOG.OPTCAAT

*(using General Education Requirements Option B or C)*

### Non-Transfer:

A.S. in Geographic Information Science 12443 AS.GEOG.GIS

*(with General Education Requirements Option A)*

Certificate(s)

Certificate in Geographic Information Science 22145 CT.GEOG.GIS

Employment Concentration Certificate(s)

Geographic Information Science 99999 ECC.GIS

## PROGRAM DESCRIPTION

The A.A.-T in Geography transfers to a four-year college and prepares students for a future in a field related to Geography. The Geographic Information Science (GIS) non-transfer Certificate and AS degree prepares students for GIS related careers which are enhanced by completion of a bachelor or graduate program. For students currently working within these fields there may be potential for salary and/or career advancement.

From local to global scales, geographers study political organization, transportation systems, marketing, economics, climate and weather, urban planning, land use development, globalization, and more. They examine distribution of land forms, study soils and vegetation, analyze limited resources such as water, and human impacts on the surface of the planet.

In general, geographers work in government research, public agencies, and are environmental consultants for nonprofit organizations.

Geographic Information Science (GIS) involves basic to advanced analysis and scientific research methods for identifying patterns, trends and relationships that are represented spatially and temporally on maps, large databases, reports and animations. Recent advancements make it possible to analyze, interact and produce maps using cloud technology. Students enrolled in our GIS courses online have the advantage of learning advanced communication and mapmaking skills that prepare them for a career in GIS, anywhere.

## CAREER OPPORTUNITIES

All career opportunities listed are representative careers in each field. There are no guaranteed positions for students completing these programs. (See: [www.onetonline.org](http://www.onetonline.org))

### Transfer A.A. Degree

#### Geography

For any BA/BS careers, please see your transfer institution.

### Non-Transfer A.S. Degree

#### Geographic Information Science

Geospatial Information Scientists and Technologists, Geographic Information Systems Technicians, Remote Sensing Scientists and Technologists, Remote Sensing Technicians, Precision Agriculture Technicians, Geodetic Surveyors, Surveyors, Surveying Technicians, Mapping Technicians, Cartographers and Photogrammetrists, and many discipline related fields with “GIS skills” as an occupational description

### Certificate

#### Geographic Information Science

Geospatial Information Scientists and Technologists, Geographic Information Systems Technicians, Remote Sensing Scientists and Technologists, Remote Sensing Technicians, Precision Agriculture Technicians, Geodetic Surveyors, Surveyors, Surveying Technicians, Mapping Technicians, Cartographers and Photogrammetrists, and many discipline related fields with “GIS skills” as an occupational description

### Employment Concentrations

#### Geographic Information Science

Geospatial Information Scientists and Technologists, Geographic Information Systems Technicians, Remote Sensing Scientists and Technologists, Remote Sensing Technicians, Precision Agriculture Technicians, Geodetic Surveyors, Surveyors, Surveying Technicians, Mapping Technicians, Cartographers and Photogrammetrists, and many discipline related fields with “GIS skills” as an occupational description.



## TRANSFER PREPARATION

### Geography

MSJC offers a range of course work to prepare students to transfer to four-year colleges and universities. All four-year institutions prescribe their own standards for course evaluation and admissions. Prospective transfer students are advised to research careers, degrees and majors in the Career/Transfer Center, access [www.assist.org](http://www.assist.org), review the MSJC catalog and meet with a counselor to expedite their transfer plan.

### Geographic Information Science

MSJC offers a range of course work to prepare students to transfer to four-year colleges and universities. Courses that fulfill major requirements for an associate degree in this program might not be the same as those required for transfer into the major at a four-year university. All four-year institutions prescribe their own standards for course evaluation and admissions. Prospective transfer students are advised to research careers, degrees and majors in the Career/Transfer Center, access [www.assist.org](http://www.assist.org), review the MSJC catalog and meet with a counselor to expedite their transfer plan.

## LEARNING OUTCOMES

- Explain the interrelationship between humans and the physical environment.
- Appreciate different cultural and ethnic perspectives within the context of environmental opportunities and challenges.
- Apply the scientific method to objective and subjective analysis of cultural and physical environments.
- Explore and critically appreciate spatial relationships at different scales from local, regional to global.
- Integrate spatial thinking with applied technology to analyze physical and cultural patterns, trends and relationships.

## DEGREES

### Transfer A.A.-T Degree

#### Geography

An Associate in Arts in Geography for Transfer will fulfill the requirements for students to transfer to a four-year college or university as a Geography major.

The major required for an A.A.-T in Geography for Transfer may be met by:

- Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University.
- The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements.
- A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtainment of a minimum grade point average of 2.0.

ADT also requires that students must earn a C or better in all courses required for the major or area of emphasis. A "P" (Pass) grade is acceptable if pass is defined as a grade of C or better.

### A.A.-T in Geography for Transfer (18-21 units)

#### Required Courses (6 units)

GEOG-101	Physical Geography	3 units
GEOG-102	Cultural Geography	3 units

#### List A: Select two to three (6-8 units)

GEOG-103	Field Studies in Geography	2-4 units
GEOG-104	Physical Geography Lab	1 unit
GEOG-105	Map Interpretation and Spatial Analysis	3 units
GEOG-106	Introduction to Weather and Climate	3 units
GEOG-108	World Regional Geography	3 units
GEOG-111	Geography of California	3 units
GEOG-115	Introduction to Geographic Information Science	3 units

#### List B: Select two (6-7 units)

Any course from List A not used above or one of the following courses:

ANTH-102	Cultural Anthropology	3 units
or		
ANTH-102H	Honors Cultural Anthropology	3 units
GEOG-107	Urban Geography	3 units
GEOL-100	Physical Geology	4 units

#### Units for Major

**18-21**

#### CSU General Education or IGETC Pattern

**37-39**

#### Possible double counting

**10**

#### Transferable Electives (as needed to reach 60 CSU transferable units)

#### Total Units for A.A.-T Degree

**60 units**

This Associate in Arts in Geography for Transfer degree is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. A student completing this degree is guaranteed admission to the CSU system, but not a particular campus or major. Students should meet with a counselor to develop an educational plan and receive university admission and transfer requirements.

## Non-Transfer Degree

### Geographic Information Science

In addition to the 18 units of the certificate program in Geographic Information Science, students must also complete all MSJC General Education Option A requirements (a total of 60 units) for the Associate of Science degree in Geographic Information Science.

## CERTIFICATES

### Certificate in Geographic Information Science (18 units)

#### Required Courses (12 units)

GEOG-105	Map Interpretation and Spatial Analysis	3 units
GEOG-115	Introduction to Geographic Information Science	3 units



- GEOG-120 Intermediate Geographic Information Science 3 units  
 GEOG-125 Advanced Geographic Information Science 3 units

### Elective Courses (minimum 6 units)

Elective courses are identified under the following concentration areas. Students must complete 6 units (any combination) under one concentration area to earn a Certificate in GIS. Once a Certificate in GIS has been earned, additional Certificates in GIS may be awarded for completion of 6 units in other concentration areas.

## EMPLOYMENT CONCENTRATIONS

### Geographic Information Science (6 units)

- GEOG-082 Programming for GIS 3 units  
 GEOG-083 Spatial Database Design and Management 3 units  
 GEOG-084 Water Management with GIS 3 units  
 GEOG-085 GIS for Catastrophes 3 units  
 GEOG-086 GIS for Web Applications 3 units  
 GEOG-088 GIS Client-Based Projects 3 units  
 GEOG-149/CWE-149N  
 Cooperative Work Experience:  
 Geographic Information Science 1-4 units



**Mt. San Jacinto College**  
 Undergraduate certificate in Geographic Information Science  
 Program Length: 36 weeks

**Students graduating on time**

**N/A\*** of Title IV students complete the program within 36 weeks<sup>1</sup>

\*Fewer than 10 students enrolled in this program. This number has been withheld to preserve the confidentiality of the students.

**Program Costs\***

**\$828** for in-state tuition and fees

**\$6,138** for out-of-state tuition and fees

**\$1,971** for books and supplies

Other Costs:

Parking Permits cost \$68 a year or \$34 a semester

RTA Go Pass cost \$12 a year or \$6 a semester

SGA discount sticker (optional) - \$14 a year or \$7 a semester

Student representation fee (optional) - \$2 a year or \$1 a semester

Help a Student Fund (optional) - \$4 a year or \$2 a semester

Student Health Center Fee - \$40 a year or \$20 a semester

\*For summer session fees, please see: <https://www.msjc.edu/StudentServices/EnrollmentServices/Pages/What-Fees-do-I-have-to-pay.aspx>

Visit website for more program cost information: <http://www.msjc.edu/StudentServices/EnrollmentServices/Pages/What-Fees-do-I-have-to-pay.aspx>

\*The amounts shown above include costs for the entire program, assuming normal time to completion.

Note that this information is subject to change.

**Students Borrowing Money**

**The typical graduate leaves with**

**N/A\*** in debt<sup>3</sup>

\*Fewer than 10 students completed this program within normal time. This number has been withheld to preserve the confidentiality of the students.

**The typical monthly loan payment**

**N/A\*** per month in student loans with an interest rate of **N/A\***<sup>4</sup>.

\*Fewer than 10 students completed this program within normal time. This number has been withheld to preserve the confidentiality of the students.

**Graduates who got jobs**

**N/A\*** of program graduates got jobs

\*We are not currently required to calculate a job placement rate for program completers.

**Program graduates are employed in the following fields:** Regulatory Affairs Managers: <http://onetonline.org/link/summary/11-9199.01>

Compliance Managers: <http://onetonline.org/link/summary/11-9199.02>

Geographers: <http://onetonline.org/link/summary/19-3092.00>

**Licensure Requirements<sup>6</sup>**

The following do not have licensure requirements for this profession:

**California**

**Additional Information:**

No additional notes provided.

Date Created: 5/15/2019

These disclosures are required by the U.S. Department of Education

**Footnotes:**

<sup>1</sup> The share of students who completed the program within 100% of normal time (36 weeks).

<sup>2</sup> The share of students who borrowed Federal, private, and/or institutional loans to help pay for college.

<sup>3</sup> The median debt of borrowers who completed this program. This debt includes federal, private, and institutional loans.

<sup>4</sup> The median monthly loan payment for students who completed this program if it were repaid over ten years at a NA\* interest rate.

<sup>5</sup> The median earnings of program graduates who received Federal aid.

<sup>6</sup> Some States require students to graduate from a state approved program in order to obtain a license to practice a profession in those States.

**<sup>7</sup> State Job Placement Rate:**

Name of the state this placement rate is calculated for:

N/A

Follow the link below to find out who is included in the calculation of this rate:

N/A

What types of jobs were these students placed in?

N/A

When were the former students employed?

N/A

How were completers tracked?

N/A

**<sup>8</sup> Accreditor Job Placement Rate:**

Name of the accrediting agency this placement rate is calculated for:

N/A

Follow the link below to find out who is included in the calculation of this rate:

N/A

What types of jobs were these students placed in?

N/A

When were the former students employed?

N/A

How were completers tracked?

N/A