

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability. For counseling appointments call 916.608.6510.

FIRST YEAR

Semester 1:

4 units

CAT.	COURSE	TITLE	GE AREA
Req	GEOG 331	Exploring Maps and Geographic Technologies	3
Req	GEOG 300	Physical Geography	3
Req	GEOG 390 or See List	Field Studies In Geography or See List	1

Semester 2:

3 units

Req	GEOG 344	Spatial Analysis and Modeling in GIS	3
Req	GEOG 334	Introduction to Geographic Information System Software Applications	3
Req	GEOG 350	Data Acquisition in GIS	3

Geography List

A minimum of 1 unit from the following:

- GEOG 300: Physical Geography: Exploring Earth's Environmental Systems (3 units)
- GEOG 301: Physical Geography Laboratory (1 units)
- GEOG 390: Field Studies in Geography (1 - 4 units)
- GEOG 391: Field Studies in Geography: Mountain Landscapes (1 - 4 units)
- GEOG 392: Field Studies in Geography: Coastal Landscapes (1 - 4 units)
- GEOG 393: Field Studies in Geography: Arid Landscapes (1 - 4 units)
- GEOG 394: Field Studies in Geography: Volcanic Landscapes (1 - 4 units)
- GEOG 498: Work Experience in Geography (1 - 4 units)
- CISC 300: Computer Familiarization (1 units)
- CISC 310: Introduction to Computer Information Science (3 units)
- CISP 360: Introduction to Structured Programming (4 units)
- CISP 370: Beginning Visual Basic (4 units)
- CISP 400: Object Oriented Programming with C++ (4 units)
- CISP 401: Object Oriented Programming with Java (4 units)

Notes:

- A Geographic Information System (GIS) is an assemblage of computers, software, and workforce personnel collecting, managing, analyzing and displaying spatial data. GIS is used to make informed decisions regarding an array of disciplines including Marketing, Forestry, Hazard Analysis, Landuse Planning, Business, Watershed Management, and Anthropology. This interdisciplinary certificate provides the theoretical and technical skills necessary to begin using GIS in a wide variety of applications. Skills obtained include GIS software application, GPS use, spatial data analysis, data management, programming and cartography.

EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this degree
GE	General Education	A course that fulfills a specific general education requirement for this degree, which can be replaced with another course that meets the same requirement
Elec	Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree