



# Geographic Information Systems (GIS) Certificate

PART TIME

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.

Catalog: 2024-25

Total Units: 28

Start Term: Spring

## First Year

### Semester 1 (Spring)

6 Units

CAT.	COURSE	TITLE	UNIT
Req	GEOG 330	Introduction to Geographic Information Systems	3
Req	GEOG 334	Introduction to GIS Software Applications	3

### Semester 2 (Fall)

6 Units

CAT.	COURSE	TITLE	UNIT
Req	GEOG 340	Cartographic Design for GIS	3
Req	GEOG 360	Database Design and Management in GIS	3

## Second Year

### Semester 3 (Spring)

9 Units

CAT.	COURSE	TITLE	UNIT
Req	GEOG 342	Introduction to Remote Sensing and Digital Image Processing	3
Req	GEOG 344	Spatial Analysis and Modeling in GIS	3
RE	GEOG 362 <sup>1</sup>	Advanced Database Design and Management in GIS	3

<sup>1</sup> or GEOG 375

### Semester 4 (Fall)

7 Units

CAT.	COURSE	TITLE	UNIT
Req	GEOG 350	Data Acquisition in GIS	3
RE	GEOG 385	Introduction to Web Based GIS Application Development	3
Req	GEOG 498	Work Experience in Geography	1

### EXPLANATION OF CATEGORIES

Req	Required Core	A course that is required for this program
RE	Restricted Elective	A course selected from a list of elective courses specified for this program in the course list in the catalog, which can be replaced with another course from the same list

## CAREER PATH

### Career Options:

We prepare our students for careers as GIS Specialists, Technicians, and Analysts. Many students enter the program with expertise in a different field, such as biology, geology, public health, or archaeology, and augment their expertise with GIS skills learned in our program.

Our graduates work primarily for government agencies including the Cities of Sacramento, Roseville, and Folsom; State of California agencies including Fish and Wildlife, Water Resources, and Department of Health; county agencies including the Counties of Sacramento, Yolo, and El Dorado; federal agencies including Environmental Protection, Geological Survey, and National Parks; and public safety agencies including Fire, Police, and Emergency Services. Other employers include engineering, archaeological, and consulting firms.

### Scheduling Notes:

- All classes begin at 6:00 PM, except GEOG 330 which is offered at 6:00 PM and 1:00 PM.
- GEOG 350, 360, and 385 are offered in the fall.
- GEOG 342 and 362 are offered in the spring.

### Other Notes:

- An internship (GEOG 498) is required as it opens up potential employment opportunities. Students can earn at least 1 unit for related paid or unpaid work experience including volunteer and internship positions through GEOG

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498. See the [Work Experience website](#) for more information.