Geographic Information Systems (GIS) A.S. Degree

FULL 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: 2026-27

GE Pattern: local AA/AS

Total Units: 60

Start Term: Spring

First Year

Semester 1 (Spring) — 15 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	GEOG 330 Introduction to Geographic Information Systems	3		L2
Req	GEOG 334 Introduction to GIS Software Applications	3		
GE	ENGL C1000 College Composition **or** ENGL C1000H[H] Honors College Composition	3 3		L1A
GE	any Area L3 (Arts & Humanities) course	3		L3
GE	any Area L7A (Physical Education) course	1		L7A
GE	any Area L7B (Life Development Skills) course	2		L7B

Semester 2 (Fall) — 15 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	GEOG 340 Cartographic Design for GIS	3	GEOG 330	
Req	GEOG 360 Database Design and Management in GIS	3	GEOG 330	
GE	any Area L1B (Oral Communication & Critical Thinking) course	3		L1B
GE	any Area L4 (Social & Behavioral Sciences) course	3		L4
Elec	any elective course	3		

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.

Advising Notes:

- This degree can be completed using either the local AA/AS general education (GE) pattern or the Cal-GETC transfer GE pattern. See a counselor to determine which pattern is best for you based on your academic goals.

Second Year

Semester 3 (Spring) — 15 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	**GEOG 342** Introduction to Remote Sensing and Digital Image Processing	3	GEOG 330	
Req	**GEOG 362** Advanced Database Design and Management in GIS	3	GEOG 360	
Req	**GEOG 375** Introduction to GIS Programming	3		
GE	**any Area L5 (Natural Sciences) course**	3		L5
GE	**any Area L6 (Ethnic Studies) course**	3		L6

Semester 4 (Fall) — 15 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	**GEOG 344** Spatial Analysis and Modeling in GIS	3	GEOG 330	
Req	**GEOG 350** Data Acquisition in GIS	3	GEOG 330	
Req	**GEOG 385** Introduction to Web Based GIS Application Development	3	GEOG 330	
Req	**GEOG 498** Work Experience in Geography	1		
Elec	**any elective course**	3		
Elec	**any elective course**	2		

[H] honors courses

EXPLANATION OF CATEGORIES		
Req	Required Core	A course that is required for this program
GE	General Education	A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement
Elec	Degree 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

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- This map is designed for students who are able to take 12 units or more each semester, which is considered a full-time load. It shows one possible way to finish the program in two years. See a counselor to adjust the coursework to meet your specific needs.
- Students can substitute ESLW 340 for ENGL C1000/C1000H (formerly known as ENGWR 300/480).
- **Elective Courses:** any elective courses numbered 100-499, or having a 4-digit number starting with C.

Scheduling Notes:

- All in-person 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, 362, and 375 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 498. This course also works toward satisfying GE Area L7B. See the Work Experience website for more information.