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: 2024-25

GE Pattern: local AA/AS

Total Units: 60

Start Term: Fall

First Year

Semester 1 (Fall) — 16 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
Req	GEOG 330	Introduction to Geographic Information Systems	3	IIb
Req	GEOG 334	Introduction to GIS Software Applications	3	
Req	GEOG 360	Database Design and Management in GIS	3	
GE	ENGWR 300 / 480 [H]	College Composition	3	IIa (WC)
GE	STAT 300 / 480 [H]	Introduction to Probability and Statistics	4	(MC)

Semester 2 (Spring) — 16 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
GE	GEOG 331	Exploring Maps and Geographic Technologies	3	IV
Req	GEOG 340	Cartographic Design for GIS	3	
Req	GEOG 344	Spatial Analysis and Modeling in GIS	3	
Req	GEOG 375	Introduction to GIS Programming	3	
GE	COMM 321	Interpersonal Communication	3	IIIb
GE		any PE activity course	1	IIIa

Second Year

Semester 3 (Fall) — 15 Units

CAT.	COURSE	TITLE	UNIT	GE AREA
GE	ART 320	Design: Fundamentals	3	I
Elec	GEOG 300	Physical Geography: Exploring Earth's Environmental Systems	3	
Req	GEOG 350	Data Acquisition in GIS	3	
Req	GEOG 385	Introduction to Web Based GIS Application Development	3	
GE	HIST 311 / 484 [H]	History of the United States (1865 - Present)	3	Va

Semester 4 (Spring) — 13 Units

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:

- Students can substitute ESLW 340 for ENGWR 300/480.

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, 362, and 375 are offered in the spring.

Other Notes:

CAT.	COURSE	TITLE	UNIT	GE AREA
GE	GEOG 310	Human Geography: Exploring Earth's Cultural Landscapes	3	VI
GE	GEOG 320	World Regional Geography	3	Vb
Req	GEOG 342	Introduction to Remote Sensing and Digital Image Processing	3	
Req	GEOG 362	Advanced Database Design and Management in GIS	3	
Req	GEOG 498	Work Experience in Geography	1	

H honors courses

- 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 IIIb. See the Work Experience website for more information.

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

Graduation Requirement

A course that fulfills a specific graduation requirement which can be replaced by another course that meets the same graduation requirement.

MC = Math Competency
WC = Writing Competency