

Industry Sector: Information Technology

Pathway: Geographic Information Systems Certificate

California Program of Study



Level	Grade	English Language Arts	Math	Social Studies	Science	Career Technical Education Course	Other Required Courses or Recommended Electives	Sample Occupations relating to this pathway (Including SOC Code)	
SECONDARY	9	English	Math	Social Science	Science		Physical Education	Occupations requiring a high school diploma <ul style="list-style-type: none"> ➤ GIS Intern ➤ Mapping Intern ➤ Surveying Intern Occupations requiring some post-secondary <ul style="list-style-type: none"> ➤ GIS Intern ➤ Mapping Intern ➤ Surveying Intern Occupations requiring a 2 year Degree <ul style="list-style-type: none"> ➤ GIS Technician ➤ Mapping Technician ➤ Surveying Technician 	
	10	English	Math	World History	Science		Physical Education Visual/Performing Arts or Foreign Language		
	11	English		US History					
	12	English (Recommended)		Civics and American Government					
(High School courses listed in the light green and yellow areas are the Minimum State High School Graduation requirements)									
POSTSECONDARY	13	Fall Year 1		Spring Year 1		Fall Year 2		Spring Year 2	
	14	GEOGR 59 Geographic Information and Global Positioning Systems (2-3)		GEOGR 60 Introduction to ArcGIS (3)		GEOGR 70 Introduction to Raster-Based GIS (3)		GEOGR 75 Introduction to Remote Sensing (3)	
		FNR 60 Introduction to Maps and Remote Sensing (2)		FNR 53 Forest Surveying (3)		MATH 101 Algebra I (5)		FNR 1 Environmental Conservation (3)	
		Complete one course: ESC 5 Physical Geology (4) ESC 23 Historical Geology (4) ESC 33 Intro to the Earth (4) ESC 42 Natural Hazards (3) GEOG 15 Physical Geography (3)		CCTIS 10 Computer Concept & Information Systems (4)				ENGL 151 Prep for College Comp (5) - or - ENGL 1A Reading & Comp: Beginning (3)	
		GEOGR 66 Webmapping (1)		GEOGR 63 Making a Basic GIS Map (1)		CCTIS 4 Operating Systems (1.5)			
Occupations requiring a BA/BS Degree <ul style="list-style-type: none"> ➤ GIS Analyst ➤ GIS Manager ➤ Cartographer ➤ Photogrammetrist ➤ Land Surveyor Industry recognized certifications, licenses, credentials or apprenticeships related to this pathway. <ul style="list-style-type: none"> ➤ Columbia College GIS Micro Credential ➤ Columbia College GIS Certificate ➤ Columbia College GIS ASOE Degree ➤ GIS BA/BS Degree ➤ GIS MA/MS Degree ➤ GIS PhD Degree ➤ GISP Professional Certification ➤ ESRI Technical Certification 									