

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 Occupations requiring a BA/BS Degree <ul style="list-style-type: none"> ➤ GIS Analyst ➤ GIS Manager ➤ Cartographer ➤ Photogrammetrist ➤ Land Surveyor
	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)								
	13	Fall Year 1		Spring Year 1		Fall Year 2		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
	14	CMPSC/GEOGR 59 – Geographic Information and Global Positioning systems (3) OR CMPSC/GEOGR 60 – Introduction to ArcGIS (3)		CMPSC/GEOGR 70 – Introduction to Raster-Based GIS (3)		CMPSC/GEOGR 65 or 75 – GIS Applications (3)		
		NATRC 160 – Introduction to Maps and Remote Sensing (2)		FORTC 153 – Forest Surveying (3)		Draft 50A – Computer Assisted Drafting I (3)		
		ESC 5 or 33 or 42 or GEOG 15 (3)		CMPSC 1 – Computer Concept & Information Systems (4)		MATH 101 – Algebra I (5)		
		ENGL 151 – Prep for College Comp (5) OR ENGL 1A – Reading & Comp: Beginning (3)				NATRE 1 – Environmental Conservation (3)		
						CMPSC/GEOGR 57 – GIS Data Management (1) <i>Recommended</i>		