

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
	10	English	Math	World History	Science		Physical Education Visual/Performing Arts or Foreign Language	
	11	English		US History				Occupations requiring a 2 year Degree <ul style="list-style-type: none"> ➤ GIS Technician ➤ Mapping Technician ➤ Surveying Technician
	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		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
	14	CCTIS 60 –or– GEOGR 60 Introduction to ArcGIS (3)		CCTIS 70 –or– GEOGR 70 Introduction to Raster-Based GIS (3)		CCTIS 65 –or– GEOGR 65 GIS Applications (3)		
		FNR 160 Introduction to Maps and Remote Sensing (2)		FNR 153 Forest Surveying (3)		Draft 50A Computer Assisted Drafting I (3)		
		Complete one course: ESC 5 Physical 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)		MATH101 Algebra I (5) <i>or higher</i>		
		ENGL 151 Prep for College Comp (5) –or– ENGL 1A Reading & Comp: Beginning (3)				FNR 1 Environmental Conservation (3)		