

Industry Sector: Information Technology

Pathway: Geographic Information Systems – ASOE



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)									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
13	Fall Year 1		Spring Year 1		Summer	Fall Year 2		Spring Year 2	
14	CMPSC/GEOGR 59 – Geogr Infor and Global Positioning systems (3) OR CMPSC/GEOGR 60 – Introduction to ArcGIS (3)		CMPSC/GEOGR 70 – Introduction to Raster-Based GIS (3)		GE (3)	CMPSC/GEOGR 65 or 75 – GIS Applications (3)		CMPSC/GEOGR 65 or 75 – GIS Applications (3)	
	NATRC 160 – Intro to Maps and Remote (2)		FORTC 153 – Forest Surveying (3)		MATH 101- (5)	Draft 50A – Computer Assisted Drafting I (3)		MATH 104 – Algebra II (5)	
	ESC 5 or 10 or 12 or 22 or 33 or 42 or GEOG 15 (3) (GE B.1)		CMPSC 1 – Computer Concept & Information Systems (4)		GE	CMPSC 4-Windows Operating Systems Essentials (1)		NATRE 1 – Environmental Conservation (3) (GE AREA D)	
	ENGL 1A – Reading & Comp: Beginning (3) (GE A.2)		GE (3)		Phy Ed Activity Course(1)	CMPSC/GEOGR 57 – GIS Data Management (1) Recommended		Physical Education Activity Course (1)	