

Applied GIS and Spatial Studies - Certificate of Achievement

+If you have completed coursework at another college and/or are starting in a semester other than a Fall term, please follow up with the Counseling Department to determine if this sequence is appropriate for your academic and career goals.

Program Description: Applied GIS & Spatial Studies uses multi-dimensional representations of information to help structure problems, find answers, and express solutions. The ability to visualize and interpret relationships through space is essential for understanding content and solving problems across a wide spectrum of disciplines in the earth sciences, environmental sciences, social sciences, business, urban planning, public safety and health sciences. With this certificate, students will use spatial thinking, analysis, modeling, and mapping skills to interpret and present information.

Program SLO: Students will apply principles of Spatial Science and GIS to solve spatial problems and inquiries in their field of study

Important Information: For students interested in earning an Associate's degree and/or transfer, please follow up with the Counseling Office for additional information @ <https://www.canyons.edu/counseling> or (661) 362-3288/(661)362-3811.

Major courses are sequenced and **BOLDED** based on recommendations by the [Earth and Space Sciences Department](#)

First Semester (3-9 units minimum) FA = Fall; WI = Winter; SP = Spring; SU = Summer

Course	Title	Units	Major Courses
GEOGRPH 110	Maps and Spatial Reasoning (FA)	3	Major
GIS 101	Intro to Geographic Information Systems (FA)	3	Major
FOCUS AREA	Select one course from major focus area - See Table Below	3-4	Major
Term Totals:		9-10	

Second Semester (10 - 19 units minimum)

Course	Title	Units	Major Courses
GIS 102	Applied Techniques for GIS (SP)	3	Major
MATH 140 OR MATH 140H OR MATH 140X OR PYSCH 104 OR SOCI 137	Introductory Statistics (FA, WI, SP, SU) or Introductory Statistics Honors (FA, SP) or Statistics with Support (FA, SP) or Statistics for the Behavioral Sciences (FA, SP) or Statistics for the Social Sciences (FA, SP)	4-5	Major
FOCUS AREA	Select one course from major focus area - See Table Below	3-4	Major
Term Totals:		10-12	

Check the [Honors website](#) for most recent course offerings. Must be enrolled in the Honors program to take courses

Total Units: 19-22

Select six to eight units from one of the following focus areas:

Administration of Justice Focus		
ADMJUS 101	Introduction to Administration of Justice (FA, WI, SP, SU)	3
ADMJUS 155	Criminal Investigation (FA, SP, SU)	3
Anthropology and Archeology Focus		
ANTHRO 101/101H	Physical Anthropology (FA, WI, SP, SU)	3
ANTHRO 103/103H	Cultural Anthropology (FA, WI, SP, SU)	3
ANTHRO 105	Introduction to Archeology (FA, SP)	3
ANTHRO 210	Indians of California (FA, SP)	3

Architecture Focus		
ARCHT 120	Design I - Elements of Architectural Drafting (FA, SP)	3
ARCHT 200A	Sustainable Development & Environmental Design (S)	3

Biology Focus		
BIOSCI 106/106H	Organismal & Environmental Biology (FA, WI, SP, SU)	4
BIOSCI 115	General Zoology (FA)	4
BIOSCI 116	General Botany (SP)	4
BIOSCI 130	Contemporary Issues in Environmental Biology (FA, SP)	3

Business Focus		
BUS 100	Introduction to Business (FA, WI, SP, SU)	3
BUS 117	Business Entrepreneurship (FA, SP)	3
BUS 140	Principles of Marketing (FA, SP)	3
BUS 141	Principles of Advertising (FA, SP)	3

Environmental Focus		
ENVRMT 101	Introduction to Environmental Studies (FA, WI, SP, SU)	3
ENVRMT 103	Introduction to Environmental Science (FA, SP)	4
ENVRMT 104	Energy Resources Conservation (FA, SP)	3

Fire Technology Focus		
FIRETC 101	Principles of Emergency Services (FA, SP, SU)	3
FIRETC 102	Fire Prevention (FA, WI, SP)	3
FIRETC 110	Wildland Fire Behavior (SP)	3
FIRETC 123	Fire Investigation (Varies)	3

Geography Focus		
GEOGPRH 100/100H	Physical Geography (FA, WI, SP, SU)	3
GEOGPRH 101	Physical Geography with Lab (FA, WI, SP, SU)	4
GEOGPRH 102	Human Geography (FA, WI, SP, SU)	3
GEOGPRH 103	Weather and Climate (FA, SP, SU)	3
GEOGPRH 104	World Regional Geography (FA, WI, SP, SU)	3
GEOGPRH 105	California Geography (FA, SP)	3

Geology Focus		
GEOLOGY 100	Physical Geology (FA, WI, SP, SU)	3
GEOLOGY 101	Physical Geology with Lab (FA, WI, SP, SU)	4
GEOLOGY 102	Historical Geology (FA, SP)	4
GEOLOGY 104	Environmental Geology- (FA, SP, SU)	3
GEOLOGY 105	California Geology(FA, SP)	3

Global Studies Focus		
GLST 101	Introduction to Global Studies (FA)	3
GLST 102	Global Issues (SP)	3
GEOGRPH 104	World Regional Geography (FA, SP, SU)	3
POLISC 270	International Relations (FA, SP)	3

Marine Sciences Focus		
BISOCI 119	Marine Biology (Varies)	4
OCEAN 101	Introduction to Oceanography (FA, SP, SU)	4

Public Health Focus		
HLHSCI 100	Health Education (FA, WI, SP, SU)	3
HLHSCI 140	Introduction to Public Health (FA, SP)	3

Real Estate Focus		
REAL 100	Real Estate Principles (FA, WI, SP, SU)	3
REAL 101	Real Estate Practices (FA, SP, SU)	3
REAL 120	Real Estate Appraisal (FA)	

Sociology Focus		
SOCI 101/101H	Introduction to Sociology (FA, WI, SP, SU)	3
SOCI 102	Introduction to Sociological Research (FA, SP, SU)	3
SOCI 104	Introduction to Social Justice Studies	3
SOCI 207	Social Problems (FA, WI, SP, SU)	3
SOCI 210	Sociology of Deviance, Crime, and Social Control (FA, WI, SP, SU)	3
SOCI 250	Introduction to Criminology (FA, WI, SP, SU)	3

Counseling Resources

Earth and Space Sciences Department: <https://www.canyons.edu/academics/earthsciences/index.php>

Counseling Department: <https://www.canyons.edu/student-services/counseling/index.php>

Honors Program: <https://www.canyons.edu/academics/honors/index.php>

Campus Alliances: <https://www.canyons.edu/administration/ie2/equity/alliances.php>

Petition for Certificate – Petitions are due in the fall/spring/summer term you will complete the requirements, and may be submitted before your last term or up until the final day of the term. Petitions must reviewed with a counselor and may be downloaded here:

https://www.canyons.edu/_resources/documents/student-services/admissions/Petition_for_Certificate_of_Special_ization.pdf

Career Resources

California Career Zone: www.cacareerzone.org

O*Net Online: www.onetonline.org

Bureau of Labor and Statistics: www.bls.gov