

# 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
<b>GEOGRPH 110</b>	<b>Maps and Spatial Reasoning (FA)</b>	<b>3</b>	<b>Major</b>
<b>GIS 101</b>	<b>Intro to Geographic Information Systems (FA)</b>	<b>3</b>	<b>Major</b>
<b>FOCUS AREA</b>	Select one course from major focus area - See <i>Table Below</i>	3-4	<b>Major</b>
<i>Term Totals:</i>		<b>9-10</b>	

**Second Semester (10 - 19 units minimum)**

Course	Title	Units	Major Courses
<b>GIS 102</b>	<b>Applied Techniques for GIS (SP)</b>	<b>3</b>	<b>Major</b>
<b>MATH 140 OR MATH 140H OR PYSCH 104 OR SOC 137</b>	<b>Introductory Statistics (FA, WI, SP, SU) Introductory Statistics Honors (FA, SP) Statistics for the Behavioral Sciences (FA, SP) Statistics for the Social Sciences (FA, SP)</b>	<b>4</b>	<b>Major</b>
<b>FOCUS AREA</b>	Select one course from major focus area - See <i>Table Below</i>	3-4	<b>Major</b>
<i>Term Totals:</i>		<b>10-11</b>	

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

**Total Units: 19-21**

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

Administration of Justice Focus		
<b>ADMJUS 101</b>	<b>Introduction to Administration of Justice (FA, WI, SP, SU)</b>	<b>3</b>
<b>ADMJUS 155</b>	<b>Criminal Investigation (FA, SP, SU)</b>	<b>3</b>

Anthropology and Archeology Focus		
<b>ANTHRO 101/101H</b>	<b>Physical Anthropology (FA, WI, SP, SU)</b>	<b>3</b>
<b>ANTHRO 103/103H</b>	<b>Cultural Anthropology (FA, WI, SP, SU)</b>	<b>3</b>
<b>ANTHRO 105</b>	<b>Introduction to Archeology (FA, SP)</b>	<b>3</b>
<b>ANTHRO 210</b>	<b>Indians of California (FA, SP)</b>	<b>3</b>

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

<b>Biology Focus</b>		
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

<b>Business Focus</b>		
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

<b>Environmental Focus</b>		
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

<b>Fire Technology Focus</b>		
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

<b>Geography Focus</b>		
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

<b>Geology Focus</b>		
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

<b>Global Studies Focus</b>		
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

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

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

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

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

### 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\\_Specialization.pdf](https://www.canyons.edu/_resources/documents/student-services/admissions/Petition_for_Certificate_of_Specialization.pdf)

### Career Resources

California Career Zone: [www.cacareerzone.org](http://www.cacareerzone.org)

O\*Net Online: [www.onetonline.org](http://www.onetonline.org)

Bureau of Labor and Statistics: [www.bls.gov](http://www.bls.gov)