



Undergraduate Certificate in GIS: Community Engagement and Planning

The Undergraduate Geographic Information System (GIS) Option: Community Engagement and Planning is a certificate designed to provide students with experience in applying geographic information systems (GIS) concepts and processes to support community engagement and planning activities. Students will use GIS as part of the overall process of engaging with a community in identifying community issues, collecting data with, from, and about the community, analyzing that data, and presenting the analysis results in cartographically and culturally appropriate ways.

A total of 15 semester units are required for the Undergraduate Geographic Information System (GIS) Option: Community Engagement and Planning Certificate.

Program Learning Outcomes:

Upon completion of this certificate, students will be able to:

- 1) Model the GIS workflow of collecting and editing spatial data; analyzing spatial data; interpreting results; and presenting those results in an appropriate format.
- 2) Apply GIS techniques to real-world case studies.
- 3) Construct cartographically- and culturally-appropriate maps.
- 4) Automate spatial techniques using models and Python.
- 5) Engage with communities in conducting spatial analysis concerning contemporary community-defined issues.



Curriculum (15 units):

GEOG 3690 Fundamentals of Geographic Information Systems	3	(Register First in the Certificate Course Sequence.)
GEOG 4620 Geographic Information Systems (GIS) Applications	3	(Register First Year or Second Year Spring, Prerequisite: GEOG 3690)
GEOG 4680 Digital Cartography	3	(Register First Year Spring, Prerequisites: GEOG 2680 & GEOG 3690)
GEOG 4700 GIS Programming and Customization	3	(Register Second Year Fall, Prerequisite: GEOG 3690)
GEOG 4800 GIS for Community Advocacy	3	(Register Second Year Spring, Prerequisites: GEOG 4680 & GEOG 4700)

Total: 15 Units

Admission Requirements:

- To apply for the Undergraduate Certificate Program in GIS, students must consult with an academic advisor about adding an Undergraduate Certificate to their Current Academic Objective. Once added, it will appear on your Academic Requirements Report (CAAR) and Degree Planner.
- Students need to submit the completed certificate application to the Department Chair and a receipt for the \$25 fee paid to the Cashier Office for the certificate application.
- Please note Undergraduate Certificate must be completed at the same time as the bachelor's degree.
- For more information about the Undergraduate Certificate and inquiry about the application form, please visit - <https://www.calstatela.edu/registrar/certificates>

