

# Geographic Information Systems (GIS) Certificate

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### 13 credits

Code	Title	Hours
Required Courses		
GEOG 3600	Introduction to Geographic Information Systems	3
GEOG 3605	Introduction to Geographic Information Systems Laboratory	1
GEOG 4140	Advanced GIS Analysis	3
GEOG 4180	Geoprocessing with Python	3
ENVS 4800R	Independent Research	1-3

### Completion Requirements

1. Complete 13 hours of specified coursework
2. Complete all coursework with a C or higher
3. Cumulative GPA of 2.0 or higher

### Geographic Information Systems (GIS) Certificate Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Describe the history, theory, and operation of GIS.
2. Investigate the use of GIS data and tools to solve real-world problems such as habitat suitability mapping.
3. Demonstrate proficiency in the use of ArcGIS to conduct spatial analyses and build maps that are fit-for-purpose and effectively convey the information they are intended to.
4. Develop and code algorithms for geographic data analysis in the Python language.