

# GEOGRAPHIC ARTIFICIAL INTELLIGENCE AND BIG DATA CERTIFICATE

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GeoAI, the integration of Geography and AI, provides novel approaches for addressing a variety of geospatial challenges in the real world. This certificate develops transferable skills in GeoAI to address issues affecting the environment and societies. GeoAI training is critical given projected growth ~16% in this industry by 2050.

## About this Program

- **College:** Liberal Arts and Sciences (<http://catalog.ufl.edu/UGRD/colleges-schools/UGLAS/>)
- **Credits:** 12-13
- Student Learning Outcomes (SLOs) (<https://public.tableau.com/app/profile/uf.oipr4918/viz/UFLStudentLearningOutcomesCertificatesOnly/StudentLearningOutcomes/?publish=yes>)

*Certificates must comply with the Certificate Policy.*

## Department Information

The Geography Department offers a range of topics in contemporary geography and geospatial science, rich and lively cultural and learning environments, BA and BS undergraduate degrees, MA, M.S., and PhD degrees, as well as the largest Medical Geography program in the United States.

**Website** (<https://geog.ufl.edu/>)

## CONTACT

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Map (<http://campusmap.ufl.edu/#/index/0267>)

## Curriculum

- Combination Degrees
- GeoAI and Geographic Analysis Minor
- Geographic Artificial Intelligence and Big Data Certificate
- Geography
- Geography Minor
- Geography Minor UF Online
- Geography UF Online
- Geospatial Information Analysis Certificate
- Medical Geography Certificate
- Medical Geography in Global Health Minor
- Meteorology and Climatology Certificate
- Meteorology Minor

## Prerequisites

For this certificate program, the course prerequisites vary depending on what courses are selected. It is possible to take this certificate and satisfy the prerequisites from the courses listed, for example:

- GIS 2114 or GIS 2002, then
- GIS 3043, then
- GIS 4324 or GIS 4424C or GIS 4500, and then the capstone
- GIS 4123C

In this way **ONLY** the courses taken are required with no additional prerequisites and with GIS 3043 serving as the prereq for the higher-level courses.

## Required Courses

Code	Title	Credits
GIS 2114 or GIS 2002	The World & Big Data The Digital Earth	3
<b>GIScience techniques course (select one)</b>		<b>3-4</b>
GIS 3043	Foundations of Geographic Information Systems	
GIS 4021C	Aerial Photo Interpretation	
GIS 4037	Digital Image Processing	
GIS 4102C	GIS Programming	
GIS 4115C	Spatial Surface Modeling and Geostatistics	
MET 3753	Pragmatic Python for Weather	
MET 4750	Spatial Analysis of Atmospheric Data using GIS	
<b>GIScience applications course (select one)</b>		<b>3</b>
GIS 3420C	GIS Models for Public Health	
GIS 4113	Introduction to Spatial Networks	
GIS 4324	GIS Analysis of Hazard Vulnerability	
GIS 4424C	Applications in GIS for Zoonoses and Disease Ecology	
GIS 4500	Population GIS	
MET 4410	Radar and Satellite Meteorology	
<b>Capstone GeoAI course</b>		<b>3</b>
GIS 4123C	GeoAI – Geographic Artificial Intelligence	
<b>Total Credits</b>		<b>12-13</b>

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