

# ARCGIS (AGIS)

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## **AGIS 1000 - ArcGIS I: Introduction to ArcGIS (4 Credits)**

This course is an introduction to using ArcGIS software to create and interpret digital maps. Students learn how to import data and use the software to create and customize maps, graphs, and reports; use maps to solve problems and answer questions; and present map data. Basic cartography, coordinate systems, geodesy, map projections, and map design are also covered. Students complete and present a final mapping project on a topic of their choosing. (Fall only)

Lecture: 3 hours, Lab: 2 hours

## **AGIS 1500 - ArcGIS II: Data Management and Spatial Analysis (4 Credits)**

This course builds on the skills learned in AGIS 1000 by familiarizing students with ArcGIS Pro, a desktop version that has database building and increased spatial analysis capabilities. Through hands-on exercises, students will learn how to develop geodatabases depending on their intended application(s), use geoprocessing tools to analyze spatial data, and combine these skills to create a series of informative maps. Finding quality data sources, assessing credibility, and the ethics of working with geographic data and running spatial analyses will also be studied. (Fall Only)

Lecture: 3 hours, Lab: 2 hours

**Prerequisite(s):** AGIS 1000

## **AGIS 2000 - ArcGIS III: Field Data Collection and Web Applications (4 Credits)**

This course focuses on collecting, analyzing, and displaying field data that has a geographic component using ArcGIS data collection and web applications to present this data. Students will learn and apply basic Python scripting to automate geoprocessing workflows and customize data, and use geospatial statistics to visualize data in map making. The final project is a culmination of all the work done in previous GIS courses. (Spring only)

Lecture: 3 hours, Lab: 2 hours

**Prerequisite(s):** AGIS 1500