

Geog370 – Introduction to Geographic Information

Spring Semester 2016

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Class Time: MWF 10:10-11:00
Location: Saunders Hall 220
Office Hours: TBA

Course Description

Used Google Maps before? Want to learn more about GPS? Wonder where to plan a solar farm in North Carolina? This will be the class for you. It will answer your questions like – how accurate is my recreational GPS unit? How to create a map using professional GIS software? How to interpret maps correctly?

This course will introduce different map projections, datum models used by map projections, and popular coordinate systems used in North American. Besides learning how to make maps using GIS software, spatial data collection, data models, data analytical models, and Internet map publishing will also be introduced. Students also will gain hands-on experiences in using ArcGIS software, GPS receivers, etc.

Major objectives of this course are listed below:

- Understanding GI(Geographic Information) – spatial reference framework introduction (map projection, datum and coordinate systems), two major data models – raster and vector data model.
- Spatial data collection – Remote Sensing and Global Positioning System (GPS). Students will learn how to use GPS handheld to collect spatial information.
- We will also learn how to make maps with ArcGIS software. Pick a spatial variable, such as migration, population, crime statistics, and map it.
- Spatial analytical methods, spatial statistics will also be introduced.
- Internet Map Publishing (ArcIMS server, ArcGIS Online, or other online GIS applications.)

