The official zoom number for this course is going to be:

https://iu.zoom.us/j/81352339598Links to an external site.

I will probably put it in my daily announcement when I start it up in the morning. You are welcome to join the session anytime after I post the announcement. No appointment needed. Only you looking after your self interest.

Syllabus starts here. Ignore all dates that look funny. This is the Spring 2025 syllabus. We will work at the speed of the class. This means that the only important dates are the project presentations at the end of class and the final exam which will be due the last day of class. Otherwise I will adjust to where you are in my set of exercises.

The zoom meeting number for the spring office hours and class recordings is

https://iu.zoom.us/j/81352339598

Here is the advance notice:

Many of you have already been in class with me. This course will have the same structure as 518 Introduction to GIS. There will be

certificate courses to complete

A project with a proposal

And a series of exercises. Some of the exercises are in my head and will involve using rasters, raster to vector conversions, hydrology, landscape management, model creation using the model builder, tins, volume measurements and TINs. I expect that you will have your own interests and you will make them known.

Spring 2025

E 518 Vector Based GIS

Dr. Avram Primack

328 SPEA

aprimack@iu.edu **But please use canvas mail. I get a lot of junk mail from people with email that I don't recognize. It is much easier for me to find your panic message if you use CANVAS. I will try to keep up. You will remind me mercilessly if I don't.**

This is

SPEA-E 429 (30096)	APPLICATION OF GIS (Lecture)	2	TuTh 11:10AM - 12:25PM	SPEA (PV)	151	Jan 13, 2025- May 9, 2025

and

SPEA-E 529 (13112)	APP OF GEOGRAPHIC INFO SYS (Lecture)	17	TuTh 11:10AM - 12:25PM	SPEA (PV)	151	Jan 13, 2025- May 9, 2025

The official exam time appears to be

10:00 a.m.	Thursday, May 8, 2025, at 10:00 a.m.

I expect that there will be a take home exam that will involve using the tools that came from the semester in a project that will result in some report to the Grand High Poobah. We also may not have an exam depending on how far we get during the semester.

This is the list of certificates and other evaluation activities that might happen during the semester. We are going to do several series of exercises that will focus on using the model builder, using and classifying satellite images, raster to vector transformations, interpolation, story maps, obtaining and analyzing data, and other topics that you might

suggest to me. You all should know the drill since you have mostly all survived the previous GIS course in my sequence.

Evaluation

10 Certificates	50 points
Up to ten exercises	up to 100 points
Short quizzes and essays	up to 50 points
Project proposal	20 points
Project	80 points
Exam	100 points
Total	up to 450 points

Certificate list:

Creating a Custom Basemap in ArcGIS Pro

Data Skills for Teachers: Creating Attributes to Support Inquiry

Python Scripting: Repairing Data Sources

Acquire Data for a GIS Project

ArcGIS Survey123 Basics

Distance Analysis: Creating Optimal Region Connections

Terrain Analysis Using ArcGIS Pro

3D Analysis of Surfaces and Features Using ArcGIS

Something about story maps….

One of your choice

Each of these is worth 5 points. You will attach the certificate of completion to the assignment. I will count them up and award the points. These are in lieu of a textbook. You

will keep the certificates in your resume/vita folder and and report that you have completed this much formal online training through ESRI in your letters of application that involve GIS as a qualification. These may also be useful in obtaining a certification of excellence in GIS from ESRI and other certification organizations. I used these to get my GISP certification from the organization at this URL: https://www.gisci.org/ You can investigate the ESRI certification at

https://www.esri.com/training/certification-find-exam/ .

Exercises

There will be up to ten exercises worth at least 10 points apiece. I will demonstrate in class. You will work on them occasionally in class and usually outside of class. I will record all the demonstrations that will include most of the actions in the exercise. You will create a layout or report that demonstrates the final result and describes how you reached that result. I assume that you remember or understand how to work with vector data. This semesters exercises will involve transforming between raster and vector formats, creating tins, using data in raster format for analysis, and automating processes using the model builder.

Project

Early in the semester I will ask you to propose a project in some area of geographic analysis that you think is interesting. I will read and approve the project proposals. Once I approve of your proposal you will start thinking about how to actually do it.

I may reject some proposals as too broad or too shallow. You will come up with a better idea, or ask me mercilessly to help you out. That is one of my functions. Asking me for help is a sign of maturity. I expect you to ask. If you don't I can't do anything. I may

You should think of this as your own small capstone investigation using GIS. What are you interested in being able to model? What do you know about the data that is available in your chosen field? This is your opportunity to try something new as a professional. We will have a seminar at the end of the semester. I may invite outside evaluators to come to the presentations.

The project should involve using GIS in some way using data that you find to answer some useful question that relates to your interests now and in the future.

Quizzes and essays:

We will have at least one reading essay. There may be one short answer quiz, and there may be some short presentations on software that is based on GIS as its backbone. The last one here may help you in your project if you pick an appropriate piece of software.

Here are some examples of GIS based applications in several aspects of management:

AGNPS Agricultural nonpoint source pollution tool

swat Soil and water assessment tool

ehs-software-2 Environmental health and safety

Logistics : Logistics

Habitat Equivalency Analysis Mitigation costs to habitat

HSI models Habitat Suitability

Other options for this category include summaries of articles or videos that show me you have read the material and are a thoughtful person.