

Course Syllabus

Foundations of GIS

GIS3043

Office Hours: Book office hours here- <https://calendly.com/sounny/meetme> 
(<https://calendly.com/sounny/meetme>)

All lectures and materials will be provided via canvas.

Course Description

The purpose of this course is to introduce students to the practice and theory of utilizing Geographic Information Systems (GIS) as a method for analysis of the environment. Students will examine the fundamentals of GIS and their applications with an emphasis on the concepts needed to effectively manipulate, query, analyze, and visualize spatial-based data. At the end of the semester, students should feel comfortable applying GIS to a range of environmental issues and have a solid understanding of the procedures and data necessary to conduct a geographical analysis. Students on the Graduate level should be able to apply GIS to their own research endeavors.

COURSE OBJECTIVES

1. To understand the concepts and principles of Geographic Information Science (GISc), including Geographic Information Systems (GIS), Remote Sensing (RS), Cartography, Geography, and Global Positioning Systems (GPS)
2. To become competent in solving environmental problems with GISc Tools
3. To understand and communicate in the technical language associated with GISc

INSTRUCTOR EXPECTATIONS OF STUDENTS

You are expected to engage with materials on canvas, participate in discussions, and read the assigned material. The instructor expects students to be curious and interested in the topic and want to engage with the materials. Students not interested in the subject should not take the course. Choose something that engages you. This is your education!

CREATIVITY

GIS is a versatile technique. Its applications are limitless. Students are expected to take this into account when doing coursework. Customizing coursework to fit your own academic goals is not only allowed but encouraged.

Prerequisites

There are no formal prerequisites for this course, however, a basic statistical methods course (e.g. GEO3162C/GEO6160). If there are concerns about readiness for the course please contact the instructor for guidance on which courses to take to prepare.

Course Resources

This course participates in the Affordable UF Initiative. The high cost of instructional materials can be a burden. This course is working to keep your material costs at less than \$20 per-credit-hour. To accomplish this, there is no required text for this course. All course material will be provided on the eLearning Platform. The software will also be provided through the UF Apps framework as well as in TUR 3006 on campus. At the request of the student to the Instructor, license codes can be provided for the Esri GIS platforms for personal laptop use.



Class Demands

In general, concepts and theories will be presented through videos online. You are expected to commit four to six hours per week in-lab time during the normal semester and ten-twenty hours a week during accelerated summer. The instructor will hold virtual office hours as requested to have one-on-one instruction. Please take advantage of the various digital interactions available in the course to get feedback and foster a sense of community with the class.

Peer Review

Many assignments will require peer-review. This is a time to give feedback to your fellow students as well as see what others are turning in. It is fine to be harsh and give feedback, but it is not appropriate to be disparaging, rude, or just plain mean. Give the peer review that you hope that you would get. Constructive feedback so you can make better GIS products.

This course uses moderated grading for some assignments. Any assignment that is moderated graded that you believe should be graded higher should be appealed directly to the instructor. Send an email to the instructor requesting a regrading, and the instructor will regrade the assignment.

Academic Honesty

You are all bound by the student academic honor code:

"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Despite the course emphasis on code-reuse and collaboration, the final work you hand in for labs and for exams MUST be your own work or clearly cited as not your own. Do not plagiarize code or material. The first time a student is caught cheating they will get a zero in the lab/test. On the second offense, the student will be reported to the appropriate student body.

UF Counseling Services

Resources are available on campus for students having personal problems or lacking clear career and academic goals that interfere with their academic performance. These resources are available on campus for students having personal problems or lacking clear career and academic goals that interfere with their academic performance. These resources include University Counseling Center, 301 Peabody Hall, 392-1575 (personal and career counseling); Student Mental Health, Student Health Care Center, 392-1171 (personal counseling); Center for Sexual Assault /Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161 ext. 4231 (counseling related to sexual assault and abuse); Career Resource Center, Reitz Union, 392-1601 (career development assistance and counseling).

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

Americans With Disabilities Act

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Student Services before bringing your request to the instructor.

Grade Breakdowns







100	A
99	A
98	A
97	A
96	A
95	A
94	A
93	A
92	A
91	A
90	A
89	B+
88	B+
87	B+
86	B+
85	B+










84	B
83	B
82	B
81	B
80	B
79	C+
78	C+
77	C+
76	C+
75	C+
74	C
73	C
72	C
71	C
70	C
69	D+
68	D+
67	D+
66	D+
65	D+
64	D
63	D
62	D
61	D
60	D
59	E
58	E
57	E
56	E
55	E
54	E
53	E
52	E
51	E
50	E
49	E










48	E
47	E
46	E
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42	E
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35	E
34	E
33	E
32	E
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24	E
23	E
22	E
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20	E
19	E
18	E
17	E
16	E
15	E
14	E
13	E











12	E
11	E
10	E
9	E
8	E
7	E
6	E
5	E
4	E
3	E
2	E
1	E
0	E






Course Summary:













Date	Details	Due
Wed Jan 11, 2023	 First Day of the Semester https://ufl.instructure.com/calendar?event_id=2703881&include_contexts=course_472144	12am
	 Class https://ufl.instructure.com/calendar?event_id=2703888&include_contexts=course_472144	9:35am to 11:30am
Thu Jan 12, 2023	 Where is the Southwest? https://ufl.instructure.com/courses/472144/assignments/5513096	due by 11:45pm
	 Welcome to GIS!	to do: 11:59pm
Mon Jan 16, 2023	 MLK Day - No School https://ufl.instructure.com/calendar?event_id=2703887&include_contexts=course_472144	12am
Wed Jan 18, 2023	 Class https://ufl.instructure.com/calendar?event_id=2703896&include_contexts=course_472144	9:35am to 11:30am

Date	Details	Due
Thu Jan 19, 2023	 Lab Setup (https://ufl.instructure.com/courses/472144/assignments/5513077)	due by 11:59pm
	 Questionnaire (https://ufl.instructure.com/courses/472144/assignments/5513040)	due by 11:59pm
	 GroupMe!	to do: 11:59pm
Wed Jan 25, 2023	 No Class (https://ufl.instructure.com/calendar?event_id=2710938&include_contexts=course_472144)	12am
	 ESRI: Getting Started with GIS (https://ufl.instructure.com/courses/472144/assignments/5513061)	due by 11:59pm
Thu Jan 26, 2023	 ESRI: Map Design Fundamentals or Mapping/Visualization (https://ufl.instructure.com/courses/472144/assignments/5513064)	due by 11:59pm
	 Make A Simple Map - ArcGIS Pro (https://ufl.instructure.com/courses/472144/assignments/5513082)	due by 11:59pm
	 No Class (https://ufl.instructure.com/calendar?event_id=2710939&include_contexts=course_472144)	12am
Wed Feb 1, 2023	 Spatial Data Quiz (https://ufl.instructure.com/courses/472144/assignments/5513044)	due by 11:55pm
	 Mapping Disaster Trends (https://ufl.instructure.com/courses/472144/assignments/5513085)	due by 11:59pm
	 Top 10 List - Top Cities For..... (Geocoding) (https://ufl.instructure.com/courses/472144/assignments/5513093)	due by 11:59pm
Thu Feb 2, 2023	 What is GIS? The Quiz (https://ufl.instructure.com/courses/472144/assignments/5513056)	due by 11:59pm
	 Class (https://ufl.instructure.com/calendar?event_id=2703889&include_contexts=course_472144)	9:35am to 11:30am
Wed Feb 8, 2023		

Date	Details	Due
Thu Feb 9, 2023	 Alaska vs Texas - Does Projection Matter when measure size of state? .https://ufl.instructure.com/courses/472144/assignments/5513057)	due by 11:59pm
	 Blue Marble Quiz .https://ufl.instructure.com/courses/472144/assignments/5513053)	due by 11:59pm
	 How big is the Earth? .https://ufl.instructure.com/courses/472144/assignments/5513071)	due by 11:59pm
	 Projections Lecture Quiz .https://ufl.instructure.com/courses/472144/assignments/5513039)	due by 11:59pm
Wed Feb 15, 2023	 Class .https://ufl.instructure.com/calendar?event_id=2703892&include_contexts=course_472144)	9:35am to 11:30am
Thu Feb 16, 2023	 ESRI: Introduction to Coordinate Systems .https://ufl.instructure.com/courses/472144/assignments/5513063)	due by 11:59pm
	 GPS Lecture Quiz .https://ufl.instructure.com/courses/472144/assignments/5513055)	due by 11:59pm
Wed Feb 22, 2023	 GPS Long Lats of the SEC .https://ufl.instructure.com/courses/472144/assignments/5513068)	due by 11:59pm
	 Class .https://ufl.instructure.com/calendar?event_id=2703893&include_contexts=course_472144)	9:35am to 11:30am
Thu Feb 23, 2023	 ArcGIS Pro: Make a Map of Turlington Plaza .https://ufl.instructure.com/courses/472144/assignments/5513058)	due by 11:59pm
	 Georeferencing .https://ufl.instructure.com/courses/472144/assignments/5513067)	due by 11:59pm
Wed Mar 1, 2023	 Georeferencing Lecture Quiz .https://ufl.instructure.com/courses/472144/assignments/5513051)	due by 11:59pm
	 Class .https://ufl.instructure.com/calendar?event_id=2703890&include_contexts=course_472144)	9:35am to 11:30am

Date	Details	Due
Thu Mar 2, 2023	 NDVI (https://ufl.instructure.com/courses/472144/assignments/5513088) 	due by 11:30pm
	 Remote Sensing Lecture Quiz (https://ufl.instructure.com/courses/472144/assignments/5513042) 	due by 11:59pm
Wed Mar 8, 2023	 Class (https://ufl.instructure.com/calendar?event_id=2703891&include_contexts=course_472144) 	9:35am to 11:30am
	 ESRI: Building Models for GIS Analysis Using ArcGIS (https://ufl.instructure.com/courses/472144/assignments/5513060) 	due by 11:59pm
Thu Mar 9, 2023	 Image Classification (https://ufl.instructure.com/courses/472144/assignments/5513073) 	due by 11:59pm
	 LCS - Von Thünen model (https://ufl.instructure.com/courses/472144/assignments/5513080) 	due by 11:59pm
Mon Mar 13, 2023	 Spring Break (https://ufl.instructure.com/calendar?event_id=2711006&include_contexts=course_472144) 	12am
Tue Mar 14, 2023	 Spring Break (https://ufl.instructure.com/calendar?event_id=2711007&include_contexts=course_472144) 	12am
Wed Mar 15, 2023	 Spring Break (https://ufl.instructure.com/calendar?event_id=2711008&include_contexts=course_472144) 	12am
Thu Mar 16, 2023	 Spring Break (https://ufl.instructure.com/calendar?event_id=2711009&include_contexts=course_472144) 	12am
Fri Mar 17, 2023	 Spring Break (https://ufl.instructure.com/calendar?event_id=2711010&include_contexts=course_472144) 	12am
Wed Mar 22, 2023	 Class (https://ufl.instructure.com/calendar?event_id=2703895&include_contexts=course_472144) 	9:35am to 11:30am

Date	Details	Due
Thu Mar 23, 2023	 Creating Maps Using Census Data https://ufl.instructure.com/courses/472144/assignments/5513045	due by 11:59pm
	 ESRI: Getting Started with the Geodatabase https://ufl.instructure.com/courses/472144/assignments/5513062	due by 11:59pm
	 GWR https://ufl.instructure.com/courses/472144/assignments/5513070	due by 11:59pm
Wed Mar 29, 2023	 Class https://ufl.instructure.com/calendar?event_id=2703894&include_contexts=course_472144	9:35am to 11:30am
	 Crime Scene Investigation https://ufl.instructure.com/courses/472144/assignments/5513046	due by 11:59pm
	 Ecological Niche Modeling https://ufl.instructure.com/courses/472144/assignments/5513059	due by 11:59pm
Thu Mar 30, 2023	 Map Algebra Quiz https://ufl.instructure.com/courses/472144/assignments/5513049	due by 11:59pm
	 Terrain Analysis Quiz https://ufl.instructure.com/courses/472144/assignments/5513047	due by 11:59pm
	 Class https://ufl.instructure.com/calendar?event_id=2703897&include_contexts=course_472144	9:35am to 11:30am
Wed Apr 5, 2023	 Acronyms Quiz https://ufl.instructure.com/courses/472144/assignments/5513054	due by 11:59pm
	 Extensions Quiz https://ufl.instructure.com/courses/472144/assignments/5513043	due by 11:59pm
	 John Snow Map - Spatial Analysis https://ufl.instructure.com/courses/472144/assignments/5513075	due by 11:59pm
Thu Apr 6, 2023	 Spatial Analysis, Interpolation, Modeling Quiz https://ufl.instructure.com/courses/472144/assignments/5513041	due by 11:59pm

Date	Details	Due
Wed Apr 12, 2023	 Class https://ufl.instructure.com/calendar?event_id=2703898&include_contexts=course_472144	9:35am to 11:30am
Thu Apr 13, 2023	 Exam 1 - GIS Conceptual Exam https://ufl.instructure.com/courses/472144/assignments/5513052	due by 11:59pm
Thu Apr 13, 2023	 Exam 2 - GIS Lab Practical https://ufl.instructure.com/courses/472144/assignments/5513048	due by 11:59pm
Thu Apr 13, 2023	 Final Project Proposal https://ufl.instructure.com/courses/472144/assignments/5513066	due by 11:59pm
Wed Apr 19, 2023	 Class https://ufl.instructure.com/calendar?event_id=2703899&include_contexts=course_472144	9:35am to 11:30am
Wed Apr 26, 2023	 Last Day of Class https://ufl.instructure.com/calendar?event_id=2703882&include_contexts=course_472144	12am
Wed Apr 26, 2023	 Class https://ufl.instructure.com/calendar?event_id=2703900&include_contexts=course_472144	9:35am to 11:30am
Thu Apr 27, 2023	 Course Evaluation https://ufl.instructure.com/courses/472144/assignments/5513050	due by 11:59pm
Thu Apr 27, 2023	 Final Project Poster https://ufl.instructure.com/courses/472144/assignments/5513065	due by 11:59pm
Thu May 4, 2023	 All Work Due! https://ufl.instructure.com/calendar?event_id=2703901&include_contexts=course_472144	12am
Thu May 4, 2023	 GroupMe Activity https://ufl.instructure.com/courses/472144/assignments/5513069	
Thu May 4, 2023	 Peer Review https://ufl.instructure.com/courses/472144/assignments/5513091	