

**UST 487/587 GIS APPLICATIONS**  
MAXINE GOODMAN LEVIN SCHOOL OF URBAN AFFAIRS  
COLLEGE OF PUBLIC AFFAIRS AND EDUCATION  
CLEVELAND STATE UNIVERSITY

<b>UST 487/587 GIS Applications</b>	<b>Tuesdays, 6 PM -9:50 PM</b>
<b>Dr. Beth Nagy, B.U.P., M.C.P., Ed.D., <a href="#">GISP</a></b>	<b>Office Hours: See BlackBoard</b>
<b>Office Location: Levin College, Room 224</b>	<b>Office Phone: 216-875-9907</b>
<b>Class Room: UR40</b>	<b>Email: <a href="mailto:b.a.nagy1@csuohio.edu">b.a.nagy1@csuohio.edu</a></b>
<b>Prerequisites: UST 485 and UST 486 GIS Methods</b>	

**COURSE DESCRIPTION**

Focuses on problem-solving skills using GIS software. Students use GIS analytical skills to design, manage, and develop GIS projects, and are assigned to research and lead discussions on GIS topics related to issues or applications of their project.

**COURSE OBJECTIVES**

This course is the final class in the GIS Certificate sequence. As such, students should expect to demonstrate their advanced knowledge of GIS from the prerequisites, acquire new GIS skills, and apply the newly acquired GIS skills to a final project. The objectives are:

- Demonstrate spatial data research abilities
- Create, analyze, and visualize spatial data
- Prepare accurate maps and other data visualizations
- Demonstrate online GIS capabilities (web GIS)
- Complete an advanced-level GIS-based project

**TEXTBOOK & SUPPLIES**

There is no textbook for this course.

Students receive a free student license of ArcGIS software, access to online GIS platforms, and online training.

It is recommended that you have at least **10GBs of space available for data storage** via flash drive, portable hard drive, or cloud-based storage for GIS assignments.

ArcGIS Pro 3.1 SHOULD BE installed on all [CSU general computer labs](#). ArcGIS Pro 3.1 is installed in the Urban College labs and on the Urban lending laptops. If you experience problems with ArcGIS Pro on CSU workstations, please let me know.

## **THE PROFESSOR**

For more information about the professor, please check out the [CSU Faculty Profile for Dr. Beth Nagy](#) and her [LinkedIn profile](#).

## **WHAT TO EXPECT**

Students should be prepared to participate in a real team project. We will do a lot of research, GIS software/application use, and some fieldwork. A 4-credit hour class requires up to 12 hours of work, including class time. This course uses primarily ESRI products - ArcGIS Pro software, ESRI web training, and the ArcGIS Online web applications. We will also learn data sources for common GIS projects in community development. In addition to GIS skills, students should also demonstrate teamwork, collaboration, project management, and professional communication.

Using the software requires practice. You will make mistakes. There will be software glitches. Projects might crash. This class is not a competition. We are a team. Let's help each other. This demonstrates critical thinking and resourcefulness. The instructor may not have the specific answer you are looking for at that moment, but will always lead students in the right direction and affirm the results.

Assignments are reviewed and provided feedback weekly. Students may revise and resubmit assignments to improve their performance, but late deductions cannot be recouped. Extra credit is not typically offered, but it's possible. Extra credit offered to one student will be offered to all students.

For technical assistance with the online Blackboard system, contact [CSU's BlackBoard Technical Support](#). It is the student's responsibility to ensure that they can access the Blackboard regularly. The instructor uses notifications and emails for up-to-date course information. Please ensure the personal technology (device/hardware, flash drives, internet access) used to complete the coursework is charged, connected and functional. If there are problems occurring in the software, please let the instructor know. If there is trouble with a CSU workstation, device, or internet access, please contact [CSU's Information Systems & Technology](#). If there is trouble with an Urban College computer lab, please contact Robert (Bob) Martel, the system administrator for the college at [r.martel@csuohio.edu](mailto:r.martel@csuohio.edu)

## **GRADING CRITERIA**

The grade for this class is based on the accumulation of points divided by the total number of points possible. No grading curve is applied.

These course requirements comprise your grade:

- Attendance
- Research & fieldwork
- Spatial data management
- Spatial data analysis
- ESRI software and applications (ArcGIS Pro, ArcGIS Online & Story Maps)

The total amount of points for work related to this course roughly break down as:

- Attendance – 5 pts (per required session TBD)
- 13 Weekly assignments @ 10 pts each = 130 pts
- Final ArcGIS Pro project – 150 pts
- Final ArcGIS Online project – 150 pts
- Final ESRI StoryMap – 100 pts
- Presentation – 50 pts

Total Points = 580 (does not count attendance)

Points are deducted for:

- Unexcused Absences: An unexcused absence occurs when the instructor is not notified in advance of an absence from class AND there is not documentation verifying your reason for the absence. Excused absences require documentation that can and will be verified such as a doctor's note, court papers, car accident police report or insurance document, or jury duty selection letter. Each student is entitled to one unexcused absence without penalty.
- Late submissions. I accept late assignments. The late submission policy for this class is 5% deduction per day late, beginning one minute after the assignment due date & time unless an excused absence was granted. Alternative arrangements are possible for most assignments in the event of unforeseen circumstances. Please contact the professor to discuss your situation.
- Incorrect solution: Your assignment submission is not prepared correctly. This means the project could not be opened, it could be opened, but no data attached, files are not in the proper format, calculations not executed properly, or analysis is incorrect.
- Grammatical and other writing errors. I evaluate your writing mechanics and deduct credit for incorrect syntax, grammar, punctuation, and spelling. I may recommend you make an appointment with the [CSU Writing Center](#) if I find that your writing needs significant improvement for college-level expectations. The recommendation is not to make you feel bad. It is to help you get better!
- Not providing a reference. Please provide a reference for sources of your information or you will be at risk of [plagiarism](#), which is a form of [Academic Misconduct](#). Self-plagiarism is also academic misconduct. Self-plagiarism is using a written response or project twice for two different classes without citing it. It is possible that students may build upon, edit/revise, or clarify the content for another purpose, but submitting the exact same work twice for two different courses without citing it is unethical and dishonest. Map plagiarism is also a thing! Always credit the source!
- Submitting another person's assignment as your own is considered cheating and will be subject to [CSU's Academic Misconduct Policy](#). All parties involved are subject to the same consequences.

You will be able to see your grades and my written feedback about your work in your Blackboard grade center. Please give me about one week from the submission date to complete grading.

The undergraduate grading scale used for this class is:

**A: 94-100 A-: 90-94 B+: 86-89 B: 83-85 B-: 80-82 C+: 75-79 C: 70-74 D: 60-69 F 0-59**

The graduate grading scale used for this class is:

**A: 94-100 A-: 90-94 B+: 86-89 B: 83-85 B-: 80-82 C: 70-79 F 0-69**

Graduate students are expected to complete an additional assignment or higher level assignment as a part of graduate course requirements (per the College of Graduate Studies).

The UG & Grad GIS Certificates require students to earn a cumulative 3.0 GPA for UST485/585, UST 486/586 and UST 487/587.

Incomplete Grade: The "I" grade is given when the work in a course has been generally passing, but when some specifically required task has not been completed through no fault of the student.

An "I" grade can be assigned by the instructor when all three of the following conditions are met:

1. Student is regularly attending/participating in the class and has the potential to pass the course;
2. Student has not completed all assignments and has stopped attending/participating for reasons deemed justified by the instructor;
3. The student has notified the instructor prior to the end of the grading period.

### **ACADEMIC AND PERSONAL SUPPORT SERVICES AT CSU**

CSU offers several free academic and personal support services. These services are helpful if students encounter academic and personal challenges.

[CSU Tutoring and Academic Success Center](#) (TASC). TASC offers Free academic support for all undergraduate students at CSU. TASC uses research-based strategies and approaches for learning to help students achieve their academic goals and ultimately to graduate. TASC does this in an informal, student-centered environment that assists students to not only achieve academically but to also socially integrate into college life.

[The CSU Writing Center](#). Writing is an important skill for all students, teachers, and professionals of every kind. As a student at Cleveland State University, you will find that classes in every discipline use writing to help students explore, create, and communicate ideas. Student writing can take many forms, from lab reports to research papers, group projects to journal entries.

[CSU Counseling and Academic Success Clinic](#) (CASC). The Counseling & Academic Success Clinic is a free, confidential, supportive counseling and coaching center available to

students of Cleveland State University. The clinic provides support and guidance in navigating the typical concerns of today's busy college student. CASC seeks to provide excellent care, guided by identifying the unique strengths of each student, while supporting the development and utilization of positive coping skills to enhance and promote both personal and academic success.

[Lift Up Vikes! Resource Center and Food Pantry](#). Lift Up Vikes! offers a convenient, dignified, and compassionate process through which CSU students are connected to resources that supplement nutrition and other basic human needs as they strive to earn a college degree.

[The CSU Community Assessment Response and Evaluation \(CARE\) Team](#). The goal of the CARE Team is to work collaboratively to support the wellbeing and safety of students, faculty, staff, and to promote a culture on campus that encourages reporting of concerns. Care Management may be useful if:

- You want to know more about support services offered at the university.
- You would like information on how to connect with medical and mental healthcare providers.
- You would like to withdraw from your classes for personal or medical reasons, and want more information on your options.
- You're feeling stressed about school and finding it difficult to cope.
- Your life outside of the classroom has become more difficult to manage.
- You're feeling overwhelmed and want to find help, but you're not sure where to start.

### **STUDENTS WITH ACADEMIC ACCOMMODATIONS**

Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the [Office of Disability Services \(ODS\)](#) at (216)687-2015. The Office is located in MC 147. Accommodations need to be requested *in advance* and will not be granted retroactively. If you have an Accommodation Memo from ODS or would like to discuss another special circumstance, please make an appointment with me to discuss your situation.

### **STATEMENT FROM THE CSU OFFICE OF INSTITUTIONAL EQUITY**

Federal law, including *Title IX*, and University policy require that CSU address discrimination, harassment and sexual violence and enable students affected by these issues to have the same opportunity to succeed as other students. To do this, the [CSU Office for Institutional Equity \(OIE\)](#) provides information, identifies resources (counseling, medical, advocacy, safety planning), issues academic accommodations (excused absences, extended deadlines, late withdrawals, alternative assignments) and other accommodations (No Contact Directives, changing living arrangements). Any student affected by discrimination, harassment and/or sexual violence and seeking assistance, should contact

the Office for Institutional Equity by calling 216-687-2223, sending an email to [OIE@csuohio.edu](mailto:OIE@csuohio.edu) or visiting the CSU Administration Center, 2300 Euclid Ave., Room 236.

### **RIGHTS & RESPONSIBILITIES (CONDUCT & ETHICS)**

Students have the right to be fully informed of course requirements, grading procedures, and to receive helpful feedback on assignments. The instructor treats criticisms and questions with the full respect they deserve, applies rules equally, returns graded work in a reasonable time frame, and provides a quality course experience. The [CSU Code of Conduct](#) is the student's guide to acceptable behaviors as a student at this university. The Code of Conduct describes infractions and states the penalties for unacceptable behavior. The [American Association of University Professors Statement on Professional Ethics](#) is my guide to professional responsibilities in the Academy; to students, colleagues, and the institution of higher education.

My classroom is a safe space to discuss ideas, attitudes, experiences, and perceptions of the information being presented. We all have the right to be heard and treated with respect. Please provide those same rights to others. Listening to different ideas and respectfully conversing about challenging topics is a primary way to learn and grow. The instructor does not tolerate abuse or insults directed towards classmates and will inform students when there is a violation of the rights of others to a respectful, focused, learning environment.

## **SCHEDULE**

The following schedule lists the plan for this semester. The schedule is subject to change, but students are provided with reasonable notice of changes and adjustment of due dates if needed. Please check the course Blackboard regularly for announcements and homework assignments.

Week One: January 16. Assignments due January 23.

- Welcome & introductions, review syllabus, GIS skills, and project
- Interactive Campus Maps

Week Two: January 23. Assignments due January 30.

- Build ArcGIS Pro working project – data needs

Week Three: January 30. Assignments due February 6.

- ArcGIS Pro working project – create & modify study area data

Week Four: February 6. Assignments due February 13.

- ArcGIS Pro working project – new data/field work

Week Five: February 13. Assignments due February 20.

- ArcGIS Pro working project – hyperlinks

Week Six: February 20. Assignments due February 27.

- ArcGIS Online webmap

Week Seven: February 27. Assignments due March 5.

- ArcGIS Online webmap

Week Eight: March 5.

- ArcGIS Online Data dashboards

***Spring Break: March 11-17***

Week Nine: March 19. Assignments due March 26.

- ArcGIS Online Data dashboard data needs

Week Ten: March 26. Assignments due April 2.

- ArcGIS Online CSU Data Dashboard

Week Eleven: April 2. Assignments due April 9.

- ESRI StoryMaps

Week Twelve: April 9. Assignments due April 16.

- Assembly of Story Map

Week Thirteen: April 16. Assignments due April 23.

- Assembly of Story Map

Week Fourteen: April 23. Assignments due April 30.

- Mock presentations

Week Fifteen: April 30.

- ESRI StoryMap Presentations

FINAL EXAM WEEK: May 8-12