Geography 370 – 006 Introduction to Geographic Information
Spring 2021 (Tuesday-Thursdays, 9:30pm-10:45pm)
Instructor: *Prof. Javier A. Arce-Nazario*
Recitations: sec. 601 Mondays 1:25PM - 2:15PM, and sec. 602 Wednesday 3:35PM - 4:25PM
Office Hours: Tuesdays 12:45-2:35pm and by appointment. Check Sakai for Zoom Link.

Geographic data is everywhere, and it is used across a variety of research areas and business endeavors. This course will introduce you to the tools and methods needed to obtain, manage, interpret and display spatial data.

LEARNING OBJECTIVES
At the end of this class, you will not only know how to create digital geographic information, but you will also know how to look critically at maps and remotely sensed imagery and how to evaluate the sources of data and the assumptions that were used to make them. Your goals should be to:

- understand how geographic data is represented, and be comfortable with the different data models and coordinate systems
- develop a skillset allowing you to design maps and carry out simple spatial analyses
- become proficient in basic operations with GIS/Remote Sensing software tools

RECOMMENDED READING
See course website https://gisunc.github.io/GEOG370Sp2021/

PREREQUISITES
This is an introductory course, so there are no prerequisites. However, since this is an online course you will be required to have a working computer (Mac, PC or Linux) and internet access. Being patient and open-minded towards computers and technology will make your experience more pleasant.

COURSE PLAN
This online course will have a combination of synchronous and asynchronous online teaching techniques. You are expected to attend the synchronous sessions and not to assume that the professor will record these synchronous lectures. Students are *not allowed* to record the zoom meetings, as your fellow students and the professor have not given consent to be recorded.

- **Synchronous sessions:**
    - Introductory lectures: The course is divided into seven (7) sections. At the beginning of each of these sections the professor will present a lecture related to the learning objective of that section.

    - Small group meetings: You will be assigned to a group of 18-25 students that will meet with the professor during lecture time (see schedule and roster to determine your group). The professor will be taking attendance during small group meetings, and during those meetings you are expected to present your

recent work and answer questions about how you did your homework. The professor will evaluate your work, your leadership and your creativity during these sessions. During the small group sessions, you might be presented with new exercises that assume that you have mastered the technique you were assigned. Attendance, participation and practice are all important for getting a good grade. You are not allowed to change groups. An unexcused absence from a small group meeting will lead to 50% being deducted from the homework that you were expected to present on that day.

- Recitations: You are required to attend recitation meetings and can't change recitation group, unless it has been arranged with the teaching assistant (TA) during the first week of the semester. The TA will be present during recitation to help with homework and other activities related to the course. 5% of the grade will be based on attendance and participation during recitation. In particular, students will be evaluated on their willingness to help other students understand the theory and methods.

* Although occasional internet connection problems are expected, students should try their best to participate via Zoom with their cameras on. In case of trouble connecting, students can dial in by telephone. Students are encouraged to participate in sessions and ask questions, since through these conversations the class can learn the material better, and the professor can better understand the difficulties they might be experiencing. Your professor has a strong *Boricua* accent, so please feel free to ask him to repeat something if you do not understand him. He will not be offended; it is part of his identity.
The professor will address most questions during the synchronous sessions. If you submit a question by email or Sakai during offline hours, the professor will address the question for the whole class during the next live session (unless it is related to a personal matter).

- **Asynchronous sessions:** You will be required to read course material and watch videos related to theory and methods. The course webpage has the links to the Sakai resources with the data used in the videos. You need to be able to replicate what is done in the video, otherwise you will not understand how to complete the homework or the tests. The benefit of learning techniques with these step-by-step videos is that you can do them at your own pace and repeat them as many times as you want until you feel comfortable doing the exercise. If you do not practice the videos, do not expect to be able to do the homework or the practical tests. The professor and the TA are always happy to help during recitation/office hours; however you should demonstrate that you have attempted the videos before you ask for help with the technical aspects of a homework or test.

REQUIREMENTS & GRADE BREAKDOWN

Tests (25%)
At the beginning of each month, students will take a synchronous test (during the scheduled lecture time) covering both the theory and applied techniques. The theory will be assessed using a combination of multiple choice and short-answer questions. Students' comprehension of applied techniques will be evaluated through exercises that require them to create a particular type of map or geographic data analysis, using the techniques presented in class. The professor will be on Zoom to answer questions during these tests.

Final exam (15%)
During the official final exam time students will be tested on all the theory and applied techniques discussed in class.

Homework and presentations (50%)
Most of the student's comprehension of the material will be assessed through homework which will be shared and presented to the rest of the class during the small group sessions. Students will create unique maps or analysis that they will share with other students. This is a very valuable part of the class, as other students learn about data and resources from other students, and the professor learns the interests of the students and can give direct feedback. The instruction and the deadlines for the 13+ homework exercises can be found on the course webpage. Turning your homework on time is important, and so 20% will be deducted per day for late submissions. It is important that you verify that you sent through Sakai the correct data and that if you send a link to a homework, that the resources in the link are public and that all the information can be access from the web. It is even more important that you do not miss the small group sessions or fail to present your homework. At least 50% of your grade will be deducted from your homework if you do not show up to the small group session. During the small group session, be ready to explain how you did your homework and discuss the decisions that you made when designing the map.

Participation, leadership and collaboration (10%)
It is expected that students will actively and respectfully participate in the class discussion, recitations and presentations.

Your projects and assignments will be turned in electronically via Sakai. 20% of any assignment's grade will be deducted per day when the assignment is late. If for some reason your internet access, your health, or other circumstances affect your ability to actively participate, please let the professor know about the situation.

Students taking this course agree to abide by the provisions of the University of North Carolina at Chapel Hill Honor Code.

Final grades will be assigned using the UNC plus/minus letter grade system:
A (93-100) A-(90-92.9) B+(87-89.9) B(83-86.9) B- (80-82.9) C+ (77-79.9) C (73-76.9) C- (70-72.9) D+ (67-69.9) D (60-66.9) F (<60)

Students with disabilities
UNC facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in difficulties with accessing learning opportunities. All accommodations are coordinated through the Accessibility Resources and Service Office (accessibility@unc.edu).

Title IX Resources
Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – Adrienne.allison@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Schedule: Check the website for details on each section and deadlines.
https://gisunc.github.io/GEOG370Sp2021/

Day	Activity
Tuesday, January 19, 2021	Live presentation Section 1
Thursday, January 21, 2021	Meet with WED recitation group
Tuesday, January 26, 2021	Meet with MON recitation group
Thursday, January 28, 2021	Live presentation Section 2
Tuesday, February 2, 2021	Meet with MON recitation group
Thursday, February 4, 2021	Meet with WED recitation group
Tuesday, February 9, 2021	Live presentation Section 2b
Thursday, February 11, 2021	Test 1
Tuesday, February 16, 2021	Wellness Day
Thursday, February 18, 2021	Live presentation Section 3
Tuesday, February 23, 2021	Meet with MON recitation group
Thursday, February 25, 2021	Meet with WED recitation group
Tuesday, March 2, 2021	All present

Thursday, March 4, 2021	Live presentation Section 4
Tuesday, March 9, 2021	Test 2
Thursday, March 11, 2021	Wellness Day
Tuesday, March 16, 2021	Meet with MON recitation group
Thursday, March 18, 2021	Meet with WED recitation group
Tuesday, March 23, 2021	Live presentation Section 4B
Thursday, March 25, 2021	Meet ALL
Tuesday, March 30, 2021	Live presentation Section 5
Thursday, April 1, 2021	Meet with both sections
Tuesday, April 6, 2021	Meet with MON recitation group
Thursday, April 8, 2021	Meet with WED recitation group
Tuesday, April 13, 2021	Live presentation Section 6
Thursday, April 15, 2021	Meet with both sections
Tuesday, April 20, 2021	TEST3
Thursday, April 22, 2021	Live presentation Section 7
Tuesday, April 27, 2021	Remote Sensing Presentation
Thursday, April 29, 2021	Remote Sensing Presentation
Tuesday, May 4, 2021	RECAP
Final Exam (Check official calendar)	FINAL EXAM