ANT4854/ANG5853: Advanced GIS Methods in Anthropology

Department of Anthropology
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Spring 2021*
Office:	*Online*	*Credit Hours*	*3*
Phone:	*(407) 823-4962*	*Class Meeting Days:*	*Th*
E-Mail:	*scott.branting@ucf.edu*	*Class Meeting Hours:*	*12:00pm – 2:50pm* *April 29th 10:00am – 12:50*
Website:	*UCF Webcourses*	*Class Location:*	*PSY 0107*
Office Hours: (Online Only)	*Dr. Branting M 1:00-1:45, Th 3:15-4:00 or by appointment* *Rodrigo T 10:00-12:00, F 10:00-12:00, or by appointment*	*TA:* *TA email:*	*Rodrigo Guzman Piedrasanta* *Melvin.GuzmanPiedrasanta@ucf.edu*

University Course Catalog Description

This course provides an advanced introduction to Geographic Information Systems (GIS) methods from an anthropological perspective. This course is part of a two-course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the GIS undergraduate and graduate certificates.

Course Overview

This course will build upon the GIS Methods in Anthropology course by engaging you in implementing the research proposals that you developed in the earlier course. Course readings and discussions will allow deeper exploration of GIS topics. This course will allow you to achieve a working proficiency in one or more core areas of geospatial analysis and achieve the completion of a project to showcase your knowledge and skills. Presentation and peer review of the final geospatial projects will encourage your engagement with not only your own topic but also the topics and analysis of the widely divergent projects developed in this course. This course is part of a two-course sequence with GIS Methods in Anthropology and fulfills the two-course core requirement for the GIS undergraduate and graduate certificates.

Course Objectives

In this course, students will gain skills in:

- Project Implementation: applying a research design to real world data to generate interpretable scientific results
- Writing: writing a final project report based on the conclusions of the research

- Public speaking: through the presentation of the project and its analysis
- Interdisciplinarity: both working with interdisciplinary data sources and methods, as well as peer-review of other students' interdisciplinary projects.

Course Prerequisites
ANT4852/ANG5852: GIS Methods in Anthropology or consent of instructor

Required Text and Articles
Readings in this course take the form of journal articles, which are available through the UCF Library web site. In cases where a reading is not available for electronic download, a copy of the reading will be made available through the course website on Webcourses@UCF.

Basis for Final Grade
Your grade will be based upon your final project report (70%), a syllabus quiz (1%), participating in discussions of the readings (9%), and a presentation of that proposal to the entire class (20%). Failure to hand it in assignments on the due date, in the absence of a pre-accepted excuse, will result in a score of (0) for that assignment. Presentation times during the final weeks of class will be scheduled later in the class. Failure to present at that time, in the absence of a pre-accepted excuse, will result in a score of (0) for the presentation.

Assignments	***Due Date***	***Percent of Grade***	***Max. Points***
Syllabus Quiz	By Friday, Week 1 at 3pm	1% and federal verification requirement	1
Participation in Classroom Discussions – Graduate students are expected to take a larger participatory role	In class	9%	9
Final Undergraduate Project Report or Final Graduate Project Report	April 8th, 2021 at start of the class period (12:00pm)	70%	70
Oral Presentation of Project	Assigned Class Period in Weeks 15 or 16	20%	20

The syllabus quiz also completes the verification requirement for students who receive federal financial aid. Verification of student engagement is required to support UCF's compliance with federal financial aid regulations. The regulations state that without verification of student engagement at the start of each course in which a student is enrolled, students will not receive their student aid. UCF is required to verify that every student enrolled in every course meets this regulation. All students, whether or not you receive federal student aid, are required to complete the syllabus quiz by 3pm on the Friday of first week.

Letter Grade	*Points*
A	93 – 100 points
A-	90 – 92 points
B+	87 – 89 points
B	83 – 86 points
B-	80 – 82 points
C+	77 – 79 points
C	73 – 76 points
C-	70 – 72 points
D+	67 – 69 points
D	63 – 66 points
D-	60 – 62 points
F	59 and below

Course Policies

Academic Integrity and Student Conduct

All student conduct must conform to the purpose of this class, which is to provide a welcoming and inclusive environment for the learning and sharing knowledge. This will require civility and respect for each other during lectures and discussions, as well as trust and cooperation between you and me. Cheating, plagiarism, and disruptive behavior will, therefore, not be tolerated in class. If your behavior in class is being disruptive (e.g. talking, violating the electronic device policy, arriving late, distracting other students), I may use my right as instructor to ask you to leave the class. If a student habitually disturbs the class I also reserve the right to reduce their final course grade by up to 10%. Plagiarism and cheating are particularly serious offenses.

Students should familiarize themselves with UCF's Rules of Conduct at <https://scai.sdes.ucf.edu/student-rules-of-conduct/>. According to Section 1, "Academic Misconduct," students are prohibited from engaging in

1. Unauthorized assistance: Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
2. Communication to another through written, visual, electronic, or oral means: The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
3. Commercial Use of Academic Material: Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
4. Falsifying or misrepresenting the student's own academic work.
5. Plagiarism: Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.

6. Multiple Submissions: Submitting the same academic work for credit more than once without the express written permission of the instructor.
7. Helping another violate academic behavior standards.
8. Soliciting assistance with academic coursework and/or degree requirements.

Responses to Academic Dishonesty, Plagiarism, or Cheating
Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, The Golden Rule <https://goldenrule.sdes.ucf.edu/>. UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and respond to academic misconduct when necessary. Penalties for violating rules, policies, and instructions within this course can range from a zero on the exercise to an "F" letter grade in the course. In addition, an Academic Misconduct report could be filed with the Office of Student Conduct, which could lead to disciplinary warning, disciplinary probation, or deferred suspension or separation from the University through suspension, dismissal, or expulsion with the addition of a "Z" designation on one's transcript.

Being found in violation of academic conduct standards could result in a student having to disclose such behavior on a graduate school application, being removed from a leadership position within a student organization, the recipient of scholarships, participation in University activities such as study abroad, internships, etc.

Let's avoid all of this by demonstrating values of honesty, trust, and integrity. No grade is worth compromising your integrity and moving your moral compass. Stay true to doing the right thing: take the zero, not a shortcut.

University-Wide Face Covering Policy for Common Spaces and Face-to-Face Classes
To protect members of our community, everyone is required to wear a facial covering inside all common spaces including classrooms (https://policies.ucf.edu/documents/PolicyEmergencyCOVIDReturnPolicy.pdf). Students who choose not to wear facial coverings will be asked to leave the classroom by the instructor. If they refuse to leave the classroom or put on a facial covering, they may be considered disruptive (please see the Golden Rule for student behavior expectations). Faculty have the right to cancel class if the safety and well-being of class members are in jeopardy. Students will be responsible for the material that would have been covered in class as provided by the instructor.

Course Accessibility
Both I and the University of Central Florida are committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need access to course content due to course design limitations should contact the professor as soon as possible. Students should also connect with Student Accessibility Services (SAS) <http://sas.sdes.ucf.edu/> (Ferrell Commons 185, sas@ucf.edu, phone 407-823-2371). For students connected with SAS, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential course access and accommodations that might be necessary and reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student. Further conversation with SAS, faculty and the student may be warranted to ensure an accessible course experience.

Course Accessibility and Disability COVID-19 Supplemental Statement

Accommodations may need to be added or adjusted should this course shift from an on-campus to a remote format. Students with disabilities should speak with their instructor and should contact sas@ucf.edu to discuss specific accommodations for this or other courses.

COVID-19 and Illness Notification
Students who believe they may have a COVID-19 diagnosis should contact UCF Student Health Services (407-823-2509) so proper contact tracing procedures can take place.

Students should not come to campus if they are ill, are experiencing any symptoms of COVID-19, have tested positive for COVID, or if anyone living in their residence has tested positive or is sick with COVID-19 symptoms. CDC guidance for COVID-19 symptoms is located here:
(https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html)

Students should contact their instructor(s) as soon as possible if they miss class for any illness reason to discuss reasonable adjustments that might need to be made. When possible, students should contact their instructor(s) before missing class.

In Case of Faculty Illness
If the instructor falls ill during the semester, there may be changes to this course, including having a backup instructor take over the course. Please look for announcements or mail in Webcourses@UCF or Knights email for any alterations to this course.

Potential Changes to Course Modality
This course might need to shift to remote or fully online instruction based on medical guidance. This course also could be fully online and thus this could require access to additional technology. If students do not have proper access to technology, including a computer and reliable Wi-Fi, please let the instructor know as soon as possible. Information about technology lending can be found at https://it.ucf.edu/techcommons/ and https://library.ucf.edu/libtech.

Notifications in Case of Changes to Course Modality
Depending on the course of the pandemic during the semester, the university may make changes to the way classes are offered. If that happens, please look for announcements or messages in Webcourses@UCF or Knights email about changes specific to this course.

University Writing Center: The University Writing Center (https://guides.ucf.edu/writingcenter) is a free resource for UCF students. If you require assistance with any part of the writing process, they have trained consultants who can help you if you plan ahead. Since written assignments comprise a large percentage of your grade for this course, I would encourage you to seek out their assistance if you require it.

Electronic Device Policy
Students learn in different ways and are comfortable with different technologies. You are welcome to use a computer, tablet, smartphone or similar device in class meetings for note taking or for completing the laboratory exercises. You may not, however, use these devices for non-course-related purposes including: phone calls, texting, checking emails, and making use of the internet. If you wish to use them to record a lecture you need to ask about this in advance. You may also not use the device in any way that is distracting to other students in the classroom. If you are found to be doing so, you will be asked to put away the device or stop using the device. The use of a device to send or receive a call or message is not

permitted in class at any point unless there is an emergency. Please be sure these devices are silenced, in accordance with University policy, and in your pocket or bag for the duration of the class.

Campus Safety
Emergencies on campus are rare, but if one should arise during class, everyone needs to work together. Students should be aware of their surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.
- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Students should make a note of the guide's physical location and review the online version at <http://emergency.ucf.edu/emergency_guide.html>.
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, students may need to access a first-aid kit or AED (Automated External Defibrillator). To learn where those are located, see <https://ehs.ucf.edu/automated-external-defibrillator-aed-locations>.
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to <https://my.ucf.edu> and logging in. Click on "Student Self Service" located on the left side of the screen in the toolbar, scroll down to the blue "Personal Information" heading on the Student Center screen, click on "UCF Alert", fill out the information, including e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- Students with special needs related to emergency situations should speak with their instructors outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video (<https://youtu.be/NIKYajEx4pk>).

Accommodations for Active Duty Military Students
Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact their instructors as soon as possible after the semester begins and/or after they receive notification of deployment to make related arrangements.

Attendance (including absences for Religious Observances and Authorized University Events or Co-curricular Activities)
Attendance at class meetings is important for an understanding of course materials and for success in this class. I will not take formal class attendance, although I may keep a record of attendance of individual students at my discretion if it is warranted based on class performance. I expect that students attend class regularly and I will not provide class notes or lecture slides to students for class periods that students miss. In addition, if you are not in attendance on days when you may be presenting, without a pre-accepted excuse, you will receive a score of (0) for that assignment. Students with a pre-accepted excuse, including a religious observance (UCF policy at <http://regulations.ucf.edu/chapter5/documents/5.020ReligiousObservancesFINALJan19.pdf>) or if you are representing the university in an authorized event or activity (UCF policy at <https://policies.ucf.edu/documents/4-401.pdf), will be provided with an alternative time for their presentations.

Updates and Notifications

The course website on Webcourses will be used for any general notifications or updates to this course, including changes to this syllabus.

Obtaining Notes for Missed Lectures
If you miss a lecture it is your responsibility to obtain notes from a fellow classmate. I will not provide notes or a copy of any lecture or activity.

Grades of "Incomplete"
Incomplete grades are only given when an unexpected and documented emergency situation prevented a student from completing the remaining work at the time when the emergency occurred. I have the right to make the final decision on whether or not to issue an incomplete, rather than submitting a final grade based upon your completed work. Incomplete work must be finished by the end of the next semester or the "I" will automatically become an "F" on your transcript.

Course Schedule

This syllabus is tentative and I may make reasonable schedule modifications to meet the goals of the class. Articles will be posted on the course website or provided in class.

Week	Day	Date	Topic Assignments Due	Reading Assignments
1	Th	Jan. 14	Introduction to Class **IN PERSON: Cohort 1** Classroom – Introduction, Syllabus Quiz, Paper Discussions **ASSIGNMENT: Syllabus Quiz due Fri. 15th, 3pm**	
2	Th	Jan. 21	Monitoring Things from Space **IN PERSON: Cohort 2** Classroom Discussion and Project Preparation Session	**Joshi et al. (2015) "Mapping dynamics of deforestation and forest degradation in tropical forests using radar satellite data"**
3	Th	Jan. 28	Tracking Movement **IN PERSON: Cohort 1** Classroom Discussion and Project Preparation Session	**Strandburg-Peshkin et al. (2015): "Shared decision-making drives collective movement in wild baboons";** **Calabrese et al. (2010): "The Geography of Taste: Analyzing Cell-Phone Mobility and Social Events"**
4	Th	Feb. 4	More Statistical Analysis and Arguments **IN PERSON: Cohort 2** Classroom Discussion and Project Preparation Session	**Austin et al. (2005): "Clustering of fast-food restaurants around schools: a novel application of spatial statistics to the study of food environments";** **Spielman (2006) "Appropriate use of the K Function in Urban Environments";** **Austin et al. (2006) "Austin et al. Respond"**

5	Th	Feb. 11	Telling a Story with Maps - Cartography **IN PERSON: Cohort 1** Classroom Discussion and Project Preparation Session	**Roth (2013): "Interactive maps: What we know and what we need to know";** **Scassa et al. (2015): "Legal Issues in Mapping Traditional Knowledge: Digital Cartography in the Canadian North"**
6	Th	Feb. 18	Maps and Behavior **IN PERSON: Cohort 2** Classroom Discussion and Project Preparation Session	**Raanan and Shoval (2014): "Mental maps compared to actual spatial behavior using GPS data: A new method for investigating segregation in cities"**
7	Th	Feb. 25	PPGIS, Crowdsourcing, Web **IN PERSON: Cohort 1** Classroom Discussion and Project Preparation Session	**Brovelli et al. (2015): "Public participation in GIS via mobile applications"**
8	Th	Mar. 4	Simulations **IN PERSON: Cohort 2** Classroom Discussion and Project Preparation Session	**Sellers et al. (2007): "An agent-based model of group decision making in baboons"**
9	Th	Mar. 11	Databases and Privacy **IN PERSON: Cohort 1** Classroom Discussion and Project Preparation Session	**Exeter et al. (2014): "'Whose data is it anyway?' The implications of putting small area-level health and social data online"**
10	Th	Mar. 18	Proposal Preparation Session **IN PERSON: Cohort 2**	
11	Th	Mar. 25	Proposal Preparation Session **IN PERSON: Cohort 1**	
12	Th	Apr. 1	Proposal Preparation Session **IN PERSON: Cohort 2**	

13	Th	Apr. 8	**ASSIGNMENT DUE AT START OF CLASS Thursday Apr 8** **Final Project Report (no more than 10 pages)** **IN PERSON: Cohort 1** The Future of GIS Discussion	**Sui (2015): "Emerging GIS themes and the six senses of the new mind: is GIS becoming a liberation technology?"**
14	Th	Apr. 15	**SPRING BREAK** **NO CLASS**	
15	Th	Apr. 22	**STUDENT PRESENTATIONS** **ONLINE**	
Finals	Th	Apr. 29	***Note Different Time: 10:00am – 12:50pm** **ONLINE**	

Article Bibliography

Austin, S. Byrn, Steven J. Melly, Brisa N. Sanchez, Aarti Patel, Stephen Buka, and Steven Gortmaker
2005 Clustering of fast-food restaurants around schools: a novel application of spatial statistics to the study of food environments. *American Journal of Public Health* 95(9):1575-1581.

Austin, S. Byrn, Steven J. Melly, Brisa N. Sanchez, Aarti Patel, Stephen Buka, and Steven Gortmaker
2006 Austin et al. Respond. *American Journal of Public Health* 96(2):205.

Brovelli, Maria Antonia, Marco Minghini, and Giorgio Zamboni
2015 Public participation in GIS via mobile applications. *ISPRS Journal of Photogrammetry and Remote Sensing* 114:306-315.

Calabrese, Francesco, Francisco C. Pereira, Giusy Di Lorenzo, Liang Liu, Carlo Ratti
2010 The Geography of Taste: Analyzing Cell-Phone Mobility and Social Events. In *Pervasive Computing. Pervasive 2010*. P. Floréen, A. Krüger, and M. Spasojevic, eds. Pp. 22-37. Berlin: Springer.

Exeter, Daniel John, Sarah Rodgers, and Clive Eric Sabel
2014 "Whose data is it anyway?" The implications of putting small area-level health and social data online. *Health Policy* 114:88-96.

Joshi, Neha, Edward T.A. Mitchard, Natalia Woo, Jorge Torres, Julian Moll-Rocek, Andrea Ehammer, Murray Collins, Martin R. Jepsen, and Rasmus Fensholt
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Raanan, Malka Greenberg and Noam Shoval
2014 Mental maps compared to actual spatial behavior using GPS data: A new method for investigating segregation in cities. *Cities* 36:28-40.

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Sellers, W.I., R.A. Hill, and B.S. Logan
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Spielman, Seth
2006 Appropriate use of the K Function in Urban Environments. *American Journal of Public Health* 96(2):205.

Strandburg-Peshkin, Ariana, Damien R. Farine, Iain D. Couzin, and Margaret C. Crofoot
2015 Shared decision-making drives collective movement in wild baboons. *Science* 348(6241):1358-1361.

Sui, Daniel
2015 Emerging GIS themes and the six senses of the new mind: is GIS becoming a liberation technology? *Annals of GIS* 21(1):1-13.