ANT4854/ANG5853: Advanced GIS Methods in Anthropology

Department of Anthropology
College of Sciences, University of Central Florida

COURSE SYLLABUS

Instructor:	*Scott Branting*	*Term:*	*Spring 2020*
Office:	*Phillips Hall 309-E*	*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 23rd 10:00am – 12:50*
Website:	*Canvas*	*Class Location:*	*PSY 0110*
Office Hours:	*Dr. Branting Th 3:15-5:00 or by appointment* *Jessica T 10:00-11:00, W 2:00-3:00, or by appointment*	*TA:* *TA email:*	*Jessica Robkin* *Jessica.Robkin@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 9th, 2020 at start of the class period (12:00pm)	70%	70
Oral Presentation of Project	Assigned Class Period in Weeks 14 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. Penalties for plagiarism or cheating can include a failing grade on an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see http://goldenrule.sdes.ucf.edu/zgrade. All students are required to follow the Rules of Conduct (https://osc.sdes.ucf.edu/process/roc), and in UCF's student handbook, The Golden Rule (http://goldenrule.sdes.ucf.edu/docs/goldenrule.pdf). Violations of these rules may result in a record of the infraction being placed in your file. Confirmation of such incidents may result in expulsion from the University.

Course Accessibility

Both the University of Central Florida and I are committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need disability-related access in this course 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.

University Writing Center: The University Writing Center (uwc.cah.ucf.edu) 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 a written assignment comprises 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. 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 and will not be permitted to use devices in class from that point forward. 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. Please be aware of your surroundings and familiar with 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 http://www.ehs.ucf.edu/workplacesafety.html).
- To stay informed about emergency situations, students can sign up to receive UCF text alerts by going to 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).

For more information see: http://emergency.ucf.edu/emergency_guide.html.

Accommodations for Active Duty Military Students

Students who are deployed active duty military and/or National Guard personnel and require accommodation should contact me 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 or if you are representing the university in an authorized event or activity, 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. 9	Introduction to Class Classroom – Introduction, Syllabus Quiz, Paper Discussions ASSIGNMENT: Syllabus Quiz due Fri. 10th, 3pm	
2	Th	Jan. 16	Monitoring Things from Space 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. 23	Tracking Movement 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	Jan. 30	More Statistical Analysis and Arguments 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. 6	Telling a Story with Maps - Cartography 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. 13	Maps and Behavior 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. 20	PPGIS, Crowdsourcing, Web Classroom Discussion and Project Preparation Session	Brovelli et al. (2015): "Public participation in GIS via mobile applications"
8	Th	Feb. 27	Simulations Classroom Discussion and Project Preparation Session	Sellers et al. (2007): "An agent-based model of group decision making in baboons"
9	Th	Mar. 5	Databases and Privacy 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. 12	SPRING BREAK NO CLASS	
11	Th	Mar. 19	Proposal Preparation Session	
12	Th	Mar. 26	Proposal Preparation Session	
13	Th	Apr. 2	Proposal Preparation Session	

14	Th	Apr. 9	ASSIGNMENT DUE AT START OF CLASS Thursday Apr 9 Final Project Report (no more than 10 pages) STUDENT PRESENTATIONS	
15	Th	Apr. 16	The Future of GIS Discussion	Sui (2015): "Emerging GIS themes and the six senses of the new mind: is GIS becoming a liberation technology?"
Finals	Th	Apr. 23	*Note Different Time: 10:00am – 12:50pm STUDENT PRESENTATIONS	

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
2015 Mapping dynamics of deforestation and forest degradation in tropical forests using radar satellite data. Environmental Research Letters 10(3):034014.

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.

Roth, Robert E.
2013 Interactive maps: What we know and what we need to know. *Journal of Spatial Information Science* 6:59-115.

Scassa, Teresa, Nate J. Engler, and D.R. Fraser Taylor
2015 Legal Issues in Mapping Traditional Knowledge: Digital Cartography in the Canadian North. *The Cartographic Journal* 52(1):41-50.

Sellers, W.I., R.A. Hill, and B.S. Logan
2007 An agent-based model of group decision making in baboons. *Philosophical Transactions of the Royal Society B* 362:1699-1710.

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.