POS6747: ADVANCED TOPICS OF QUANTITATIVE POLITICAL ANALYSIS
SPRING 2021

Tuesday, 6pm – 8:50pm EST
V - Synchronous Virtual via Zoom

Instructor: Dr. Kelsey Larsen
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Office Hours (held via Zoom):

- Wednesday 12:00-1:00pm EST
- Thursday 2:45-4:45pm EST
- By appointment

COURSE INFORMATION

Course Description:

As the public and private sectors continue to demand empirical skills among many of their employees, the default measure for what 'counts' as statistical ability continues to grow. Now more than ever, individuals need to have a deeper command of advanced empirical methods, and equally importantly, the ability to translate those advanced methods into visualizations and communications that are clear for data consumers. This course challenges graduate learners to push beyond the introduction to empirical methods provided by POS 6746/7745 (or equivalent), to instead *master* those methods and begin incorporating more advanced skills into their repertoire. Using STATA and other statistical software applications, learners will practice new methods related to fitting nonlinear data, utilizing two-stage least squares techniques, better evaluating panel data, considering regression discontinuity, reducing dimensionality, and more, all in the context of political and public policy data. Learners will practice these skills repeatedly, such that they can enter the classrooms, offices, and governments of the future with a stronger command of what the data does—and doesn't—actually tell us.

Course Objectives:

At the end of this course, students will be able to:

- Identify, explain, and select appropriate strategies for advanced political analysis
- Apply software programs to analyze empirical data
- Create and clearly communicate advanced empirical conclusions

Required Textbook (hard copy or digital):

- Bailey, Michael (2019). *Real Econometrics: The Right Tools to Answer Important Questions* (2nd edition). New York, NY: Oxford University Press.

Recommended Textbook:

- Hamilton, Lawrence (2013). *Statistics with Stata: Updated for Version 12* (8th edition). Boston, MA: Brooks/Cole.

Technology Requirement:

In addition to the required text, you will require access to and/or a a personal license for STATA, as well as any additional analytic software programs (e.g., SPSS and R/RStudio) you may want to employ. All students will automatically be granted free STATA, SPSS, and RStudio access via UCF Apps, meaning they can access these programs remotely. Conversely, for those students who prefer downloading a personal copy of STATA directly to their computer, they can do so for approximately $48 through the STATA website (or they can visit the HPH 310/409 computer labs to use those computers-- though please note that social distancing guidelines will be enforced).

Graded Assignments:

Class Participation (20%)
Problem Sets (25%)
Exam I (20%)
Exam II (20%)
Data presentation (15%)

Class Participation (200 points):
Because this is a 'synchronous' V1 format in response to COVID-19, students are expected to attend every class session, to have read the assigned readings for a class section before attending that class, and to actively participate in class discussions/engagement opportunities. If you are unable to attend a live synchronous course meeting due to COVID-19 related health concerns, contact the instructor for assistance.

Class participation will be evaluated based on your active engagement with in-class prompts, your timely submittal of assignments, and your participation in group activities.

Problem Sets (250 points):
Learners will be assigned a series of five homework assignments designed to practice the empirical skills learned throughout the course. The problem sets will involve a mix of analytical and communication-related practice exercises, to be completed and submitted to Webcourses@UCF by the deadlines specified. The instructor will provide detailed information about the instructions and expectations in each assignment.

Exams I and II (200 points each):
Learners will complete two non-cumulative exams, designed to assess their understanding of the lectures, readings, and practice exercises. The exams will consist of similar questions to the

problem set assignments, with detailed information on the formats and materials to be provided by the instructor in the weeks prior to each scheduled exam.

Data Presentation (150 points):
Throughout the course, students will apply the knowledge and skills they are gaining to develop and execute their own original empirical analysis presentation. Specifically, they will formulate research questions of interest, survey related literature, locate appropriate data sources, and use class tools to evaluate the nature of the relationship. This process will culminate in a briefing presentation to the class at the end of the semester, wherein they will clearly communicate their research question as well as their findings/conclusions, in addition to taking questions from the class. More detail will be provided throughout the course.

Grading Scale

Letter Grade	Percentage	Total points
A	93%-100%	925- 1000
A-	90-93%	895 - 924
B+	87-89%	865 - 894
B	84-86%	835 - 864
B-	80-83%	795 - 834
C+	77-79%	765 - 794
C	74-76%	735 - 764
C-	70-73%	695 - 734
D+	67-69%	665 - 694
D	64-66%	635 - 664
D-	60-63%	595 - 634
F	0-59%	0-594

Course Format:
The Zoom links for live class meetings will appear in the "Calendar" tab of your Webcourses@UCF homepage (assigned to the calendar POS6747). You can familiarize yourself with Zoom by visiting the UCF Zoom Guides at <https://cdl.ucf.edu/support/webcourses/zoom/>. You may choose to use Zoom on your mobile device, tablet, or computer, though some there is some difference in functionality across formats. When possible, it is recommended you use Zoom via Desktop Client to make the easiest use of the available features.

Things to Know About Zoom:

- You must sign in to my Zoom session using your UCF NID and password.
- The Zoom sessions are recorded.

- Improper classroom behavior is not tolerated within Zoom sessions and may result in a referral to the Office of Student Conduct.
- You can contact Webcourses@UCF Support at <https://cdl.ucf.edu/support/webcourses/> if you have any technical issues accessing Zoom.

Professionalism:
Advanced empirical methods are hard enough to practice without a once-in-a-hundred-years pandemic (and all of its associated personal and professional effects) raging alongside it. So participation in this course means you tacitly agree to be patient and kind as we all work through the current 'normal', and that you follow just a few basic graduate professionalism rules during our Zoom meetings: please always be dressed (tops and bottoms), be muted as a default unless otherwise engaging with the course, and when possible/applicable, consider turning on your camera for course discussions.

Instructor Contact Information

As indicated above, Office Hours will be held every Wednesday from 12-1pm EST and every Thursday from 2:45-4:45pm EST for students to meet with the instructor regarding any questions or concerns they may have. Students should attend using the unique Zoom Office Hours meeting link in their Webcourses@UCF calendar. Note that Zoom Office Hours will utilize a Waiting Room, meaning you may log-in to the Office Hours session and see a message asking you to wait (and that the host will let you in soon). This means that one or more people are in the queue ahead of you; you will be automatically admitted as soon as their session(s) conclude. Students may also schedule office hours by appointment, by messaging the instructor directly through the Webcourses@UCF Inbox. Note that for all communications, the instructor will reply within 24 hours (unless otherwise indicated in advance).

UNIVERSITY POLICIES: COVID-19

University-Wide Face Covering Policy for Common Spaces and Face-to-Face Classes

Though this course will be delivered online, to protect members of our community, everyone on campus 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). Note that 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.

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.

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.

UNIVERSITY POLICIES: GENERAL

Academic Integrity

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: talk to your instructor, make a plan, take a compromise rather than a shortcut.

Please note: In synchronous courses like this one, students are not allowed to use GroupMe, WhatsApp, or any other form of technology to exchange course material associated with a graded assignment, quiz, test, et cetera. The completion of graded work in an online synchronous course should be considered a formal process: Just because you are not in a formal classroom setting being proctored while taking a quiz or test does not mean that the completion of graded work in an online course should not be treated with integrity.

The following is not all inclusive of what is considered academic misconduct. These examples show how the use of technology can be considered academic misconduct and could result in the same penalties as cheating in a face-to-face class:

- **Taking a screen shot of an online quiz or test question, posting it to GroupMe or WhatsApp, and asking for assistance is considered academic misconduct.**
- **Answering an online quiz or test question posted to GroupMe or WhatsApp is considered academic misconduct. Giving advice, assistance, or suggestions on how to**

complete a question associated with an online assignment, quiz, or test is considered academic misconduct.

- **The use of outside assistance from another student or by searching the internet, Googling for answers, use of websites such as Quizlet, Course Hero, Chegg Study, etc. is considered academic misconduct.**
- **Gathering to take an online quiz or test with others and sharing answers in the process is considered academic misconduct.**

If a student or group of students are found to be exchanging material associated with a graded assignment, quiz, or test through any form of technology (GroupMe, WhatsApp, etc.), or use outside assistance (Googling answers, use of websites such as Quizlet, Course Hero, Chegg Study, etc.), they could receive anywhere from a zero grade on the exercise to an "F" in the course depending on the act.

Course Accessibility:

The University of Central Florida is 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.

Campus Safety:

Though most emergency situations are primarily relevant to courses that meet in person, such incidents can also impact online students, either when they are on or near campus to participate in other courses or activities or when their course work is affected by off-campus emergencies. The following policies apply to courses in online modalities.

- 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.

Deployed Active Duty Military:
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.

Authorized University Events/Co-curricular Activities:
Students who represent the university in an authorized event or activity (for example, student-athletes) and who are unable to meet a course deadline due to a conflict with that event must provide the instructor with documentation in advance to arrange a make-up. No penalty will be applied. For more information, see the UCF policy at <https://policies.ucf.edu/documents/4-401.pdf>

Religious Observances:
Students must notify their instructor in advance if they intend to miss class for a religious observance. For more information, see the UCF policy at <http://regulations.ucf.edu/chapter5/documents/5.020ReligiousObservancesFINALJan19.pdf>.

Copyright:
This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder. Outside of the notetaking and recording services offered by Student Accessibility Services, the creation of an audio or video recording of all or part of a class for personal use is allowed *only* with the advance and explicit written consent of the instructor. Such recordings are only acceptable in the context of personal, private studying and notetaking and are not authorized to be shared with *anyone* without the separate written approval of the instructor.

Technology Requirements:
You will be expected to have daily access to the internet and email, given that all course content and announcements will be delivered in online synchronous/asynchronous formats. All students at UCF are required to obtain a Knight's Email account and check it regularly for official university communications. Students are also required to use the Canvas communication tools or their Knight's email account to communicate with the instructor; please note that if you use a personal email account, it may be designated as spam.

Academic Engagement Requirement:
All instructors/faculty are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the Webcourses@UCF quiz in the course site by the end of the first week of classes or as soon as possible after adding the course. Failure to do so may result in a delay in the disbursement of your financial aid.

COURSE SCHEDULE

The following course schedule is subject to amendment by the instructor with advance notice.

Date	Topic	Readings	Important Notes
12 January	Course introduction	- Review Bailey Chapter 1 as needed	
19 January	Mastering the basics, pt. 1	- Bailey, Chapter 2 - Sautter, R. C. (1995). Standing up to violence. *Phi Delta Kappan*, *76*(5), K1. [Webcourses@UCF] - Fisher, B. S., Cobane, C. T., Vander Ven, T. M., & Cullen, F. T. (1998). How many authors does it take to publish an article? Trends and patterns in political science. *PS: Political Science & Politics*, *31*(4), 847-856. [Webcourses@UCF] -	
26 January	Mastering the basics, pt. 2	- Bailey, Chapter 3 - Bailey, Chapter 4 - Bailey, Chapter 5	HW 1 due Friday 1/29
02 February	Polynomials and Quadratics	- Bailey Chapter 7	
09 February	Advanced panel data	- Bailey, Chapter 8 - Bailey, Chapter 15	HW 2 due Friday 2/12
16 February	Instrumental variables	- Bailey, Chapter 9	
23 February	Better Experiments	- Bailey, Chapter 10 - McDermott, Rose. 2002. "Experimental Methods in Political Science." *Annual Review of Political Science* 5, 31-61. [Webcourses@UCF] - Green, Donald P and Alan S. Gerber. 2002. "The Downstream Benefits of Experimentation." *Political Analysis* 10:4, 394-402. [Webcourses@UCF]	HW 3 due Friday 2/26

02 March	Regression discontinuity	- Bailey, Chapter 11	
09 March	EXAM 1	- None	Exam 1
16 March	Dummy DVs	- Bailey, Chapter 12	
23 March	Dimension Reduction	- Jolliffe, I. T., & Cadima, J. (2016). Principal component analysis: a review and recent developments. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *374*(2065), 20150202 [Webcourses@UCF] - Punamäki, R. L., Qouta, S. R., & Sarraj, E. E. (2010). Nature of torture, PTSD, and somatic symptoms among political ex-prisoners. *Journal of traumatic stress*, *23*(4), 532-536. [Webcourses@UCF]	HW 4 due Friday 3/26
30 March	Practicing Time-series	- Bailey Chapter 13	
06 April	Future methods & challenges in advanced empirics	- Abadie, A., Diamond, A., & Hainmueller, J. (2015). Comparative politics and the synthetic control method. *American Journal of Political Science*, *59*(2), 495-510. [Webcourses@UCF] - Chang, C., & Masterson, M. (2020). Using Word Order in Political Text Classification with Long Short-term Memory Models. *Political Analysis*, 1-17. [Webcourses@UCF] - Jenke, L., Bansak, K., Hainmueller, J., & Hangartner, D. (2019). Using Eye-Tracking to Understand Decision-Making in Conjoint Experiments. *Political Analysis*, 1-27. [Webcourses@UCF]	HW 5 due Friday 4/9
13 April	*NO CLASS – SPRING BREAK*		
20 April	Data presentations	- None	Data presentations (live in class)
04 May	EXAM 2	- None	Exam 2