UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF SCIENCES
DEPARTMENT OF POLITICAL SCIENCE
(JAN 2, 2015)

POS 6746.0001 – Quantitative Methods in Political Research (Credit: 3 Units)
Tue 6:00PM - 8:50AM HPH 310

Instructor	Dr. Kyungkook Kang (pronounce Key-young-cook or K3)
Office	302J Phillips Hall
Office hours	Monday/Wednesday 9:00 –10:20 AM, or by appointment All office hours are first come, first served
Main office phone	407-823-5082
Instructor E-Mail	Kyungkook.Kang@ucf.edu
Correspondence	The best way of all correspondence with me will be via Canvas of Webcourses@UCF instead of regular email account, which can lead to delayed feedback. Please use Inbox, which is the global communication function in Canvas. I will normally respond within two business days. If you send a message to my UCF email address, I will make my reply only to the emails sent from your UCF Knights Email account (No Gmail, Hotmail, Yahoo Mail, etc. please).
Required Textbooks	Damodar Gujarati & Dawn Porter. 2008. Basic Econometrics. 5th Edition. McGraw-Hill/Irwin. Philip Pollock, The Essentials of Political Analysis, 4th Edition Philip Pollock, A Stata Companion to Political Analysis, 2nd Edition
Teaching Assistant	TBD

IMPORTANT!!! - NEW POLICY REGARDING YOUR FINANCIAL AID

As of the Spring 2015, all faculty members are required to document students' academic activity at the beginning of each course. In order to receive the earliest financial aid disbursement, you MUST complete the pretest assignment of syllabus quiz (can be found in Quizzes on webcourse@UCF) between the first day of class and January 16th. Failure to do so will result in a delay in the disbursement of your financial aid.

COURSE DESCRIPTION

This class is required for graduate students who want to further develop their empirical skills to the necessary level required for high quality academic research as well as private/public sector employment using empirics. First, you will be introduced to the process of developing testable and falsifiable theories and hypotheses, aided by statistical analysis software. Then, the course will

discuss a comprehensive introduction to econometrics and its application to political science research. The essential background in statistics will be also reviewed in class.

Econometrics is the widely accepted toolkit among social scientists to empirically investigate theory and behavior. Even though the topic of econometric methodology is vast and controversial, we will examine regression techniques that form the core of the discipline of econometrics. This method allows researchers to model and analyze the relationship between a dependent variable and one or more independent variables (bivariate analysis or multivariate analysis). Although econometricians routinely estimate a wide variety of statistical models, using many different types of data, the vast majority of these are either regression models or close relatives of them.

To implement computational regression analysis, you will be actively involved with computer exercises using the STATA econometrics program available in the computer lab. Throughout the course I will use STATA to demonstrate a series of econometrics exercise with various estimation and test procedures.

COURSE GOALS

In this course, our main goal is to explore the mechanics of analytical research design and methodology in contemporary political science. You will learn how to construct simple econometric models, estimate the parameters of those models, and interpret the parameter estimates we obtain. Based on solid understanding on standard methods, you will also focus on research design development, operationalization and lacunae in the existing empirical literature, and data applicability in answering certain types of research question.

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COURSE DESIGN

The techniques of analytical research methods are imparted principally through taking classes and doing problem sets, rather than independent reading. Therefore, we believe that a student who has performed well in the classes will be well-prepared for the exam. The exams and assignments will consist of required questions which test the material of texts and lecture notes.

Our classes combines an examination of fundamental concepts and techniques of political science research with hands-on practical work applying those concepts and techniques. It is therefore essential for students to regularly attend the class and to read and carefully consider the required materials before the class. To complete the take-home assignments, you must use a lab computer OR rent the software and install it on your PC or laptop. We will be using STATA in this course. I assume that you have no prior experience with this software

Stata is available in the HPH 310 computer lab (our classroom). The information about the hours when the lab is available to students will be distributed in class and posted on Canvas. Students should either plan to regularly visit the computer lab, or rent and install Stata on their computer.

You can rent Stata for six months at:

HTTP://WWW.STATA.COM/ORDER/NEW/EDU/GRADPLANS/CAMPUS-GRADPLAN/

The recommended version of Stata is Stata/IC 13 for the price conscious, the students-only six-month license. The student price is $69 (Jan 2, 2015). The link is located in the upper-right corner of the webpage listed above. Stata runs on Windows, Mac, and Linux/Unix. You need not specify your operating system when you order; Stata licenses are not platform specific. Delivery via electronic download is available.

I will electronically distribute a "skeleton outline" of my lecture note (a guided note with designated spaces for formulae & keywords) before each section begins. You can bring your own hard copies and take notes of my detailed explanations.

ATTENDANCE

Attendance is required. Regular attendance is crucial to being successful in this course. You should arrive to class on time: it will start promptly at its assigned time. Do not leave early. Late arrivals and early departures may count as absences.

MAKE-UP EXAM & ASSIGNMENT POLICY

Make-up exams and assignments will be granted only in the case of an emergency (only for documented reasons) and/or a university documented absence. I always investigate the claims and make sure the documents are authentic. If such documentation is provided, it is up to the instructor's discretion to grant a make-up exam or to excuse the student from taking the exam without penalty. All make-ups are given on the last week of the semester. No extra credit expected. If exam or assignment dates conflict with a religious holiday, please notify the instructor about this at the beginning of the class. I will seek to accommodate you.

REQUIREMENTS

Your course grade will be based on three components:

- ✓ **Attendance**. **10 percent.** Attendance is required. This course will move fast; you will become confused if you do not attend regularly. Late arrivals and early departures may count as absences. The frequency and quality of individual attendance will be carefully recorded and reflected in the final grades.
- ✓ **Two Take-Home Lab Assignments**. **40 percent.** You will be given two regular assignments during the term. Each student is to attempt all problems individually before the assigned date. The penalty for submitting a lab assignment late is 10 points (one letter grade approximately) for each calendar day of lateness.

- ✓ **Two In-Class Exams 50 percent.** You will be given two comprehensive In-Class exam covering the material discussed in class. Typically, the exam will contain a number of theoretical questions and analytical exercises. No early exams.

UCF DISABILITY STATEMENT

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Student Resource Center, Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

UCF RULES OF ACADEMIC CONDUCT

As reflected in the UCF creed, integrity and scholarship are core values that should guide our conduct and decisions as members of the UCF community. Plagiarism and cheating are very serious academic offenses. Please refer to the University's Rules of Conduct (available at: http://www.osc.sdes.ucf.edu) for more information on these issues. Failure to comply with university rules may subject violator(s) to appropriate action by university authorities and/or appropriate civil authorities. The penalty for students who plagiarize or cheat on an exam or an assignment will include a grade of F on that exam or assignment.

PROFESSIONALISM POLICY

Per university policy and classroom etiquette; mobile phones, iPods, etc. must be silenced during all classroom and lab lectures. Those not heeding this rule will be asked to leave the classroom/lab immediately so as to not disrupt the learning environment. Please arrive on time for all class meetings. Students who habitually disturb the class by talking, arriving late, etc., and have been warned may suffer a reduction in their final class grade (NO POINTS IN ATTENDANCE, SERIOUSLY!).

UNIVERSITY WRITING CENTER

The University Writing Center (UWC) is a free resource for UCF undergraduates and graduates. At the UWC, a trained writing consultant will work individually with you on anything you're writing (in or out of class), at any point in the writing process from brainstorming to editing. Appointments are recommended, but not required. For more information or to make an

appointment, visit the UWC website at http://www.uwc.ucf.edu, stop by MOD 608, or call 407.823.2197.

GRADING

Graded tests and materials in this course will be returned individually only by request. You can access your scores at any time using the Grade Book function of Webcourses. Please note that scores returned mid-semester are unofficial grades. Your course grade will be determined by the following numeric scale:

Course Points Average	Letter Grade
94-100	A
90-93	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C -
67-69	D+
63-66	D
60-62	D-
0 – 59	F

Important Dates to Remember

Drop/Swap Deadline: Thursday, Jan 15, 2015

Martin Luther King Jr. Day (No Class) : Monday, January 19, 2015

Spring Break: Monday, March 09, 2015 - Saturday, March 14, 2015

Grade Forgiveness Deadline: Tuesday, Mar 24, 2015

Withdrawal Deadline: Tuesday, Mar 24, 2015

Final Examination: Tuesday, May 05, 2015 (7:00PM)

TENTATIVE COURSE SCHEDULE

On the following page a tentative course schedule is provided. I plan to cover most of the text. In addition, I will present a fair amount of material in lectures that is not in the book.

Week and Date	Topic	Pollock	Gujarati
1st Week (Jan 13)	Course Introduction		
2nd Week (Jan 20)	Research Design I	Ch1 – Ch3	Ch1
3rd Week (Jan 27)	Research Design II	Ch4 – Ch5	Ch1
4th Week (Feb 3)	Research Design III	Ch6 – Ch7	Ch1
5th Week (Feb 10)	Mechanics of Simple Linear Regression I *Definition of "Linear" & "Regression"* *Concept of Controlling Variables*	Ch7– Ch8	Ch2 – Ch4
6th Week (Feb 17)	Mechanics of Simple Linear Regression II *Deriving Regression Coefficients* *Concept of Ordinary Least Squares (OLS)*	Ch7 – Ch8	Ch2 – Ch4
7th Week (Feb 24)	Variance of β and Hypothesis Testing I *A Review of Statistical Concepts* *Testing Hypotheses about Population Parameters*	Ch6 – Ch7	Ch5 – Ch6
8th Week (Mar 3)	Variance of β and Hypothesis Testing II *Sampling Distributions of the OLS Estimators*	Ch6 – Ch7	Ch5 – Ch6
9th Week (Mar 17)	**In-Class Midterm Exam**	**Exam on Tuesday 6:00PM in class**	
10th Week (Mar 24)	General Linear Regression I *Multiple Regression Analysis: Estimation* *Model Performance*	Ch8	Ch7
11th Week (Mar 31)	General Linear Regression II *Multiple Regression Analysis: Inference*	Ch8	Ch8
12th Week (Apr 7)	Dummy Variables, Interaction Terms	Ch8	Ch9
13th Week (Apr 14)	Violating the Assumptions of OLS	Ch8	Ch10 – Ch13
14th Week (Apr 21)	Qualitative/Binary Response Regression	Ch9	Ch14 – Ch15
15th Week (Apr 28)	Study Day (NO CLASS)	**No Classes in UCF**	
16th Week (May 5)	**In-Class Final Exam**	**Exam on Tuesday 7:00 PM in class**	

***** Note: The content of syllabus and course schedule are subject to change and update at the instructor's discretion if necessary.**

Changes to the syllabus, if any, will be announced in class and the updated syllabus will be posted on Canvas.

Students are responsible for any changes in syllabus/schedule which are announced in class.