Faculty Liberal Arts and Professional Studies
Department of Economics

Course: AP/ECON3210A – Use of Economic Data
Course Webpage: https://moodle.info.yorku.ca/
Term: Summer 1 Term 2019
Calendar Description / Prerequisite / Co-Requisite
Introduces the theory and practice of empirical analysis of economic models. Develops tools to estimate economic relationships involving two or more variables and to test their significance. Relies on the use of Canadian data sets and statistical software packages to show how linear regression analysis is applied. Prerequisite: AP/ECON 2500 3.00 or equivalent. Note: No credit will be retained for this course for students who have successfully completed or who are currently enrolled in AP/ECON 4210 3.00. Course credit exclusions: HH/PSYC 3030 6.00, SC/MATH 3330 3.00. Note: Acceptable course substitutes are available in the Calendar. PRIOR TO FALL 2009: Course credit exclusions: SC/BIOL 2060 3.00, AK/AS/ECON 3210 3.00, AK/AS/SC/MATH 3033 3.00, AS/SC/MATH 3330 3.00.

Course Instructor

Instructor: David K. Lee, Ph. D.
Office: Ross S 109
Email: dklee@yorku.ca
Phone: 416-736-2100 Ext. 33527
Course Consultation Hours: F: 9:30 am – 11:30 am

Teaching Assistants: TBA

Time and Location
Lectures: MW 6:00pm – 9:00pm ACW 006

Expanded Course Description
The primary goal for this course is to make students in understanding statistical methods for estimating economic relationships, testing economic theories, and evaluating and implementing government and business policy. This course examines what happens when economic data do not satisfy the assumptions of the Classical Linear Regression Model. It explains why ordinary least squares methods are not appropriate in the presence of, for example, heteroscedasticity, and how estimation techniques have to be modified to take these problems into account. Extensive use will be made of software packages.
In general, students are required to have backgrounds in probability and statistics. In addition, (although not formally required) students are assumed to have backgrounds in calculus and linear algebra.

Organization of the Course

This course involves formal lectures presented by the course instructor. The classroom technology will be used extensively, such as PowerPoint, or MS word format presentation. There will be extensive usages of the course web site. Reading assignments, practice problems, problem solving, etc., for each lecture session, tutorial sessions or TA availability, etc., will be announced on the course web site.

Course Learning Objectives

This course focuses the theory and practice of econometric analysis of economic models. The basic probability and statistics will be reviewed in the beginning of the course. Linear regression analysis, both simple and multiple regressions including various functional forms of regression model such as binary dependent variable, then will be examined. The topics for the cases in which the assumptions of the classical linear regression model are relaxed such as multicollinearity, and heteroskedasticity will be examined. Throughout the course, statistical software packages will be used to show how the theory is applied.

Textbook (Required):

Wooldridge, Jeffery M., *Introductory Econometrics: A Modern Approach*, 7th Edition. Cengage Learning. 2020.

Evaluation

The grade for this course is composed of the mark received for each of the following components:

Type of Assessment	Group/Individual	Percent/Weight	Date
Assignment 1	Group/Individual	5	TBA
Assignment 2	Group/Individual	5	TBA
Midterm Exam (120 min)	Individual	30	May 15
Final Exam (180 min)	Individual	60	June 12-15
TOTAL		**100%**	

The following conversions will be used in converting percentage grades to letter grades:
90-100 (A+), 80-89 (A), 75-79 (B+), 70-74 (B), 65-69 (C+), 60-64 (C), 55-59 (D+), 50-54 (D), 40-49 (E), 0-39 (F).

Please note that I strongly believe that the best learning experiences occur when there are healthy attendance and discussions in the classroom. Therefore, I have a policy to give some bonus points based on **class attendance and participation (usually no more than 5%)** in order to encourage attendance and classroom discussion. Feel free to ask any questions or simply make comments on relevant topics at any time.

Problem sets will be posted in the course web site throughout the semester. Some of them may be solved in class. These problems will not be graded, however, I encourage you to work through them. It will help you understanding the course material and consequently, increase the probability that you will do well in the course. Practice may not always make perfect, but it's a good start.

Assignments:
One of the purposes for this course is to learn real econometric applications for students. Students are required to complete research projects of an econometric model application with statistical software such as SAS, SPSS, STATA, or R. SAS and SPSS are ones of the most powerful statistical languages. SAS is widely used software for virtually every field. STATA is statistical software, in general, specialized for economics and/or econometrics. STATA is useful software for students who plan to study further in economics (masters or Ph. D level). R is a relatively newly introduced but very popular and powerful programming language for data analysis.

Students will have to complete projects during the semester using at least one of the programs listed above. The project can be a group or individual. If students form a group, the group member should be no more than 5.

If a student has access of other programming languages such as GAUSS, SHAZAM, and TSP, and wants to apply one of these, he/she should consult with the instructor.

Access to this software is available to students through WebFAS (using Passport York). Here is the link on how to access the software:

https://webfas.yorku.ca/Citrix/WEBFASWeb/

R programming language is available from the following website.

https://www.r-project.org

I will also book the computer lab in LAPS and arrange TAs to guide you. Further information will be given out in class and posted on the course website.
In general, students are required to have backgrounds in probability and statistics. Background in calculus and linear algebra is beneficial. The detail information and instruction for the project will be posted on the course website and discussed in the class.

Deferred Exam Policy:
The deferred exam policy will be announced shortly after each exam. Deferred students are strictly required to follow the instruction.

NO multiple deferrals allowed
Students can defer only one of the three exams. If students defer more than one exams, the successive deferred exams will be marked zero.

No makeup exam will be given if a student misses the midterm.
If a student misses the midterm and can provide appropriate documentation (i.e. medical note) that explicitly indicates the student was incapable of writing the midterm at the scheduled time, the weight of the midterm will be added to the final exam (i.e. the final exam will be worth 80% of the final grade if

you missed one of the two midterms). The documentation submission policy will be announced in Moodle.

Deferring the Final Exam:
There will be generally no deferments offered for missed final exams except under very unusual circumstances. Anyone wishing to write a deferred final exam generally will be required to formally petition for such. Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

TENTATIVE SEQUENCE AND SCHEDULE

Session	Topic	Reading and Activity
01 Apr 29	Introduction: Nature of Econometrics	Ch 1
02 May 1	Review of Basic Statistics	Appendices: A and B
03 May 6	The Simple Regression Model	Ch 2
04 May 8		
05 May 13	The Estimation of Multiple Regression Model	Ch 3
06 May 15	**Midterm Exam (Sessions 1 to 4 covered)** **(Note: Drop Deadline: May 27)**	
07 May 22 (May 20 Victoria Day)	The Estimation of Multiple Regression Model	Ch 3
08 May 27	The Inference of Multiple Regression Model	Ch 4
09 May 29	Multiple Regression: Further Issues	Ch 6
10 June 3	Dummy Variables	Ch 7
11 June 5	Heteroskedasticity	Ch 8
12 June 10	Review	
Final Exam	**June 12-14**	

New Information and Changes:

The schedule is subject to change –sometimes there are unexpected absences or we bog down on an issue. Check your class notes, or contact me for up-dated work schedules.

It may be very possible to make some adjustments of lectures and/or exams schedules. Students may also have handouts for the topics discussed in the class. It is students' responsibility to be aware of any policy (or schedule change), or to collect handouts from classes. If you miss classes, contact the instructor before or immediate after, and check if there is any policy change or handout distributed.

There is no excuse for not knowing course policies or schedule changes, or for not having handouts.

Additional Information / Notes

Important Course Information for Students

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents) - http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation

IMPORTANT COURSE INFORMATION

The Senate Academic Standards, Curriculum and Pedagogy (ASCP) provides a Student Information Sheet that includes:

- York's Academic Honesty Policy and Procedures / Academic Integrity Web site
- Access/Disability
- Ethics Review Process for Research Involving Human Participants
- Religious Observance Accommodation
- Student Code of Conduct

Additional information:

- Academic Accommodation for Students with Disabilities
- Alternate Exam and Test Scheduling
- Grading Scheme and Feedback Policy
  The Senate Grading Scheme and Feedback Policy stipulates that (a) the grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) be announced, and be available in writing, within the first two weeks of class, and that, (b) under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for 'full year' courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade.
- Important University Sessional Dates (you will find classes and exams start/end dates, reading/co-curricular week, add/drop deadlines, holidays, University closings and more. http://www.registrar.yorku.ca/importantdates/index.htm
- "20% Rule"
  No examinations or tests collectively worth more than 20% of the final grade in a course will be given during the final 14 calendar days of classes in a term. The exceptions to the rule are classes

which regularly meet Friday evenings or on Saturday and/or Sunday at any time, and courses offered in the compressed summer terms.

- Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.
- Services for Mature and Part-time Students
  The Atkinson Centre for Mature and Part-time Students (ACMAPS) maintains and strengthens York University's ongoing commitment to welcome and to serve the needs of mature and part-time students. For further information and assistance visit: http://www.yorku.ca/acmaps

SUMMER 2019 SESSIONAL DATES

	S1	***S2***
Course start date	***April 29***	***June 17***
Last date to add a course without permission of instructor	***May 3***	***June 21***
Last date to add a course with permission of instructor	***May 10***	***June 28***
Last date to drop course without receiving a grade	***May 27***	***July 15***
Reading Week	***N/A***	***N/A***
Study days	***June 11***	***July 30***
Course end date	***June 10***	***July 29***
Examinations	***June 12-14***	***July 31-Aug. 9***

*****Policy and Guidelines on Withdrawn from Course:*** http://secretariat-policies.info.yorku.ca/policies/withdrawn-from-course-w-policy-and-guidelines/