Econometrics

SYLLABUS
ECON 342, SPRING–2017

INSTRUCTOR

MICHAEL C.Y. YANG
St. Lawrence University
DEPARTMENT OF ECONOMICS
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Instructor
  Michael Yang

Instructor Email
  cyang@stlawu.edu

Instructor Website
  www.mcyyang.com

Instructor Office Location
  Hepburn 17

Instructor Office Hours: Days & Times
  Monday & Wednesday 1:30-4:00 pm

Class Location
  Hepburn 113

Class Meeting: Days
  Tuesday & Thursday

Class Meeting: Time
  10:10-11:40 am

Website
  https://sakai.stlawu.edu/
1 Course Description and Objectives

1.1 University Course Description

342 Econometrics (Pass/Fail option is not allowed)
A study of statistical techniques economists have found useful in analyzing economic data, estimating relationships among economic variables and testing economic theories. Topics include multiple regression, probit and logit analysis, heteroscedasticity, time-series and panel data. Prerequisite(s): ECON 200, ECON 251, and 252.¹

1.2 Why Study Econometrics?

The course is designed for undergraduate economics majors who have taken basic statistics and quantitative methods in economics. Unfortunately, a one-semester course would not be able to cover all the topics in econometrics. However, the course will provide students enough skills for empirical research. By the end of the semester, students should be able to write empirical papers, such as a term paper, a senior seminar paper, or a senior thesis. The content in this course is also well suited for students who wish to pursue a graduate degree in social science. We will be using a lot of examples throughout the course to get a solid grasp of applied econometrics. Finally, students are assumed to have been exposed to some microeconomic and macroeconomic theory, and basic mathematical functions.

"Essentially, all models are wrong, but some are useful"
–George E. P. Box

2 Course Materials and Requirements

2.1 Required Textbook & Software

Please purchase the textbook from the bookstore (Brewer Bookstore) so that you have access to the student supplements: MindTap and Aplia.


- STATA: Data Analysis and Statistical Software (Website)

Recommended Books (Not Required)


Other readings will be posted online.

¹http://www.stlawu.edu/economics/economics-courses-offered-st-lawrence
2.2 Course Requirements

1. Exams
Two in-class exams (Midterm and Final) will be given during the semester. Exams may include multiple choices, short-answer, and problem solving (calculation) questions. No exams are dropped or replaced. Make-up exams will be given, if and only if you have a valid, documented, university-approved excuse. The midterm will cover the first half of course materials and the final exam is comprehensive.

2. Problem Sets
There will be four regular problems sets during the semester. No problem sets are dropped or replaced. The problem sets are composed of problem-solving and statistical programming; therefore, STATA is essential. Late submission will not be accepted. It is your responsibility to turn in the assignments on time.

3. Participation
Participation will be based on weekly quizzes on Aplia. You must complete the quiz before 11 pm on Sunday. Again, late submission will not be accepted. Further details will be announced in class.

4. Attendance
Attendance is not required, but highly recommended. In my experience, student performance in the class is highly correlated with attendance. In order to do well on the in-class quizzes, labs, and in-class group exercises, you must be present in class. You are expected to attend all classes. Students should also be aware that attendance and class participation are essential for successfully completing the course requirements. Missing class for any reason will have an adverse effect on your grade because you will miss important class work.

5. Group Project & Presentation
Students will be self-selected into groups of three. Each group will conduct an empirical project and write a 10-15 page paper. In the last week of classes, each group will give a 13-minute presentation (2 minutes for Q & A after the presentation) to the class. The paper should include separate sections for each of the following: Abstract, Introduction, Data Description, Empirical Methods, Results, Conclusion, and References. Paper format: One-inch margin around each page, font size-11, and page number. Your presentation will be evaluated by your classmates and instructor. More information about this group project will be discussed later.
2.3 Grading Distribution and Scale

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage of Final Grade</th>
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<tbody>
<tr>
<td>Problem Sets</td>
<td>20% (5% each)</td>
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<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Final</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Group Presentation</td>
<td>15%</td>
</tr>
<tr>
<td>Group Paper</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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<table>
<thead>
<tr>
<th>Grading Scale</th>
<th>Points</th>
<th>Grading Scale</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>4.00</td>
<td>100 - 96</td>
<td>2.25</td>
<td>74 - 73</td>
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<tr>
<td>3.75</td>
<td>95 - 90</td>
<td>2.00</td>
<td>72 - 70</td>
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<tr>
<td>3.50</td>
<td>89 - 86</td>
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<td>2.75</td>
<td>79 - 78</td>
<td>1.00</td>
<td>62 - 60</td>
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<tr>
<td>2.50</td>
<td>77 - 75</td>
<td>0.00</td>
<td>&lt;60</td>
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No extra credit will be given. The only exception being bonus questions that may be asked on exams.

3 Course Policies

3.1 Questions & Email

The best way to contact me outside of office hours is via email. I will attempt to answer any and all questions asked through email promptly. Asking relevant questions also demonstrates your contribution to the class. Thus, students are encouraged to ask valid questions.

3.2 Academic Integrity

Academic honesty is expected. In fairness to the many students who work hard and put in an honest effort, those who in any way engage in acts of academic dishonesty or cheating will be treated most harshly as to do otherwise would devalue all honest student’s education. I encourage students to discuss economics and the class material together (outside of class) and to help each other in solving problems and in coming to understand the material. In fact, you will find this class much easier if you do form study groups. Nevertheless, work submitted for a grade must ultimately be the work of the individual student - not copied from another student or from any other source. It is my policy to, at a minimum, assign a grade of zero for any problem set on which cheating occurs.
3.3 Course Flexibility

If it becomes necessary to add to, delete from, or otherwise alter this syllabus, then I reserve the right to do so as I deem fit. However, I will clearly communicate any and all changes made to the class in a timely manner.

3.4 Grade Dissemination

Due to privacy concerns grades will only be given in person. No one else other than the student in question is able to collect graded material for someone else.

3.5 Students with Disabilities

Students with disabilities, access needs, and/or questions regarding these topics may contact the Disability Resource Center at (315) 229-5537 (voice) or (315) 229-7453 (Fax). More information can be found at http://www.stlawu.edu/disability-and-accessibility-services

4 Course Outline

1. Introduction & Review
2. The Simple Regression Model Review
3. Multiple Regression Estimation
   Problem Set 1
4. Multiple Regression Inference
5. Multiple Regression Extensions
6. Dummy Variable
   Problem Set 2
8. Probit & Logit
9. Issues on Time Series Analysis
   Problem Set 3
10. Serial Correlation and Heteroskedasticity
11. Simple Panel Data Method
   Problem Set 4

Group Presentation (May 2 & 4, 2017), Group Paper due
Final Exam (May 9, 2017) 8:30 am - 11:30 am