

Course Syllabus

Eco 5350.001
Introductory Econometrics
Fall 2016
TTH 3:30 – 4:50 PM
303 Umphrey Lee Building

Objectives of Course:

There are four major objectives of this course. The student will demonstrate understanding of:

1. The **Classical Linear Regression Model**, its maintained assumptions and optimal properties. This model is by far the most frequently used by economists to analyze economic data.
 2. How to apply the Classical Linear Regression Model to economic data for the purposes of **hypothesis testing** and **prediction**.
 3. How to determine, vis-à-vis **diagnostic statistics**, when the **maintained assumptions** of the Classical Linear Regression Model are violated and how to address the violations so that **correct statistical inferences** can be drawn.
 4. The details of the **STATA computer program** frequently used by economists to analyze economic data.
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Evaluation of the Student:

There will be **two mid-term exams**, a **double-point homework assignment** due in lieu of a final exam and **homework assignments**. I will also be giving credit for **attending Job and Internship workshops** at the Hegi Family Career Development Center and **for class attendance**. (For a schedule of the Hegi Center workshops see <http://www.smu.edu/StudentAffairs/Career/Events>.)

Be sure and register at each Hegi Center workshop so that I will have a record of your attendance.) The weights of each of these items are as follows: mid-term exams (30% each), homework assignments (20%), attendance of workshops at the Hegi Center (10%) and class attendance (10%). I will be assigning a maximum of 10 points for the Hegi Center attendance – attending zero events (0 points), attending one event (6 points), attending 2 events (8 points), attending 3 or more events (10 points). I will also be assigning a maximum of 10 points for class attendance – 10 points for no unexcused absences, 8 points for 1 or 2 absences, and 6 points for more than 2 absences. After 4 or more absences in class attendance, I reserve the right to administratively drop the student from the class. My policy is to drop the lowest homework score you have before forming a homework average to be used in calculating your overall average in the class. The empirical project due in lieu of a final exam will be a double-point (20 points) assignment that will be included in the homework part of your grading scale. (The usual

homework problems are valued at 10 points each.) Finally, you must obtain a doctor's letter if you are to be excused from **any** exams or homework assignments due to illness.

As it concerns the homework assignments, I don't mind if you consult with your classmates on assignments you are uncertain about or if you seek the help of others as it regards computer usage and the interpretation of computer output. What I will not accept, however, are carbon copy homework answers. You have to write your own homework results up. You should view the homework assignments as preparing you for your mid-term exams and helping you get acclimated to the STATA computer program. Always, if you need any help in this course, do not hesitate to see my research assistant or me. Homework handed in late will automatically be reduced in grade by 10% before grading commences. If homework is more than two days late, a grade of zero (0) will be assigned.

Accessing Computer Software for this course: We are going to be using the **STATA** software package in this class. It can be accessed via Apps.smu, a virtual computer environment for your personal PC or laptop. To use STATA on Apps.smu, you will first need to download **Citrix Receiver** to your PC or laptop. To do this, go to <http://apps.smu.edu>. As a first time user of Apps.smu, you will be directed to download **Citrix Receiver** on your PC or laptop computer. After you have done that, you will see the Apps.smu canvas. Then drag the STATA app to the canvas. Thereafter, you should be ready to go for your homework assignments. (**Note:** For MAC users, I recommend that you go to the student assistance desk in Fondren Library West (entrance next to Hughes-Trigg) and get them to help you with the Citrix Receiver download. Unfortunately, the MAC download and operation of Apps.smu is somewhat different from the Windows environment download.)

For your information

Certification in SAS: If you are an Applied Masters student in our department you might want to consider becoming certified in SAS. There are two levels of certification: Level I - SAS Certified Base programmer (<http://support.sas.com/certify/creds/bp.html>) and Level II – SAS Certified Advanced Programmer (<http://support.sas.com/certify/creds/ap.html>). If you take and pass either of these tests, the Department of Economics Graduate Office (see Stephanie Hall) will cover the costs of the exam (approximately \$90). Having a SAS certification on your resume can help you find a job in quantitatively oriented fields. All SMU students have access to free e-learning courses for the purpose of preparing for the certification tests. If you are interested in accessing these free e-learning courses, just let me know and I will provide more information to you.

Additional Information

Recommended Textbook:

Introductory Econometrics: A Modern Approach by Jeffrey M. Wooldridge (custom sixth edition). This custom edition is a shortened version of the full textbook by Wooldridge and much less expensive than the full version which is intended for a two semester sequence in introductory econometrics. The SMU bookstore is the only one that sells copies of this book. You cannot purchase these through online book sellers. Hereafter I refer to the book as **Wooldridge**.

Office: Room 301M, Umphrey Lee Bldg., 214-768-2559

Office Hours: Tuesday and Thursday, 1:30 – 2:30 PM or by appointment

E-mail: tfomby@smu.edu

Class Website: <http://faculty.smu.edu/tfomby>

My Graduate Teaching Assistant: Igor Zhadan. His E-mail address is: izhadan@smu.edu If you should need extra tutorials or help outside of my office hours, contact Mr. Zhadan and he will be happy to help you.

Important Dates to Remember:

First Day of Class: Tuesday, August 23.

Labor Day Holiday: Monday, September 5

Fall Break: Monday – Tuesday, October 10-11

Last Day to Drop a Class: Friday, November 4

No Classes on Wednesday, November 23

Thanksgiving Break: Thursday – Friday, November 24-25

Last Day of Class: Tuesday, December 1

When double-point homework assignment is due (in lieu of final exam): Monday, December 5 by 5:00 pm. Assignment can be turned in at my office or to my mailbox in the 301 Office Suite in Umphrey Lee Building.

My grading scale in this course is as follows:

A: 92-100; A-: 90-91; B+: 88-89; B: 82-87; B-: 80-81; C+: 78-79; C: 72-77; C-: 70-71; D+: 68-69; D: 62-67; D-: 60-61; F: 0-59.

Classroom Website: <http://faculty.smu.edu/tfomby/>

- **Disability Accommodations:** Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit

<http://www.smu.edu/Provost/ALEC/DASS> to begin the process. Once registered, students should then schedule an appointment with the professor as early in the semester as possible, present a DASS Accommodation Letter, and make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.

- **Religious Observance:** Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See University Policy No. 1.9.)
- **Excused Absences for University Extracurricular Activities:** Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)

TOPICS and LECTURE SCHEDULE

(Note: This schedule is only approximate and will be modified if necessary)

August 23: Overview of the course

August 25: Apps.smu and Introduction to STATA

August 30: Chapter 1, Wooldridge, “The Nature of Econometrics and Economic Data”

September 1: Chapter 2, Wooldridge, “The Simple Linear Regression Model”

September 6: Chapter 2, Wooldridge, continued.

September 8: Chapter 2, Wooldridge, continued.

September 13: Chapter 3, Wooldridge, “Multiple Regression Analysis: Estimation”

September 15: Chapter 3, Wooldridge, continued.

September 20: Chapter 4, Wooldridge, “Multiple Regression Analysis: Inference”

September 22: Chapter 4, Wooldridge, continued

September 27: Chapter 4, Wooldridge, continued.

September 29: Chapter 5, Wooldridge, “Multiple Regression Analysis: OLS Asymptotics”

October 4: Review for Mid-term I exam

October 6: Mid-term I exam

October 11: Fall Break

October 13: Chapter 6, Wooldridge, “Multiple Regression Analysis: Further Issues”

October 18: Chapter 6, Wooldridge, continued.

October 20: Chapter 6, Wooldridge, continued.

October 25: Chapter 7, Wooldridge “Multiple Regression Analysis with Qualitative Information”

October 27: Chapter 7, Wooldridge, continued.

November 1: Chapter 7, Wooldridge, continued.

November 3: Chapter 8, Wooldridge, “Heteroskedasticity”

November 8: Chapter 8, Wooldridge, continued.

November 10: Chapter 8, Wooldridge, continued.

November 15: Basic Regression Analysis with Time Series Regression – Deterministic Trend model with Seasonal Dummies and autocorrelated errors – class notes.

November 17: Basic Regression Analysis with Time Series Regression, continued.

November 22: Basic Regression Analysis with Time Series Regression, continued.

November 29: Review for Mid-term II exam

December 1: Mid-term II exam

Double-Point Homework in lieu of final exam due at 5:00 pm on Monday, December 5 in my office or mailbox.