Course Syllabus  
ECON 7810/8810 – Econometrics I  
Spring Semester, 2020  
3.0 Credit Hours  
(Last updated: 1/3/2020)

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Office: FCBE #411  
Office Hours: T 3:00-5:00 and by appointment

Course Overview:  
This course provides an overview of elementary econometric theory and methods with applications. The 'application' aspect implies becoming familiar with Stata or R.

Pre-Requisites/Co-Requisites:  
Econ 7125/8125

Required Texts:  

Recommended Texts (Not required):  
Stock and Watson, Introduction to Econometrics, 3rd edition  
Angrist and Pischke, Mostly Harmless Econometrics  
Cameron and Trivedi, Microeconometrics Using Stata  
Greene, Econometric Analysis, 6th edition  
Wooldridge, Econometric Analysis of Cross Section and Panel Data, 2nd edition

Location of Course Materials:  
All course materials (lectures, discussion topics, news, etc.) are located on the eCourseware website.
**Stata:**
Stata can be accessed [https://citrix.memphis.edu/vpn/index.html](https://citrix.memphis.edu/vpn/index.html)

**R:**
Rstudio can be downloaded by google ‘Rstudio’

**Course Objectives:**
By successfully completing this course, students will be able to:

1. Students will understand the importance of the assumptions underlying the Classical Linear Regression Model (CLRM)
2. Students will demonstrate an understanding of how OLS works
3. Students will conduct proper inference after using OLS to test single and multiple linear and non-linear hypotheses
4. Students will understand the consequences for OLS when assumptions of the CLRM are violated, including when the data are measured with error
5. Students will demonstrate knowledge of how panel and instrumental variables estimation works
6. Students will develop and prove competency in Stata or R in order to apply the techniques learned

**Fogelman College: Learning Outcomes for Your Degree**
The Fogelman College has established the following learning goals for all students successfully completing the degree:

**MA**
- Graduates will acquire a strong base in theoretical economic analysis.
- Graduates will acquire discipline specific knowledge.
- Graduates will acquire high-level empirical skills.
- Graduates will be able to communicate economic concepts effectively.

**PhD**
- Graduates will demonstrate a detailed knowledge of their areas of specialization.
- Graduates will master the analytical/methodological skills needed to evaluate and conduct research in their areas of specialization.
- Graduates will demonstrate their ability to design and conduct original research in their chosen fields of specialization.
- Graduates will be able to teach college-level courses in their areas of specialization.
- Graduates will be able to communicate the results of their research in a clear and effective manner.
Grading and Evaluation Criteria

- There will be two exams (one midterm and one final). The final will not be explicitly cumulative. Midterm worth 30% and Final worth 50%.
- Homework will be assigned four times, twice in the first half and twice in the second half. Assigned problems may be mostly empirical, but some are theoretical. The homeworks will be graded on a "check/-check/check+" basis, which roughly corresponds to 60/80/100 points. Homework may be done in groups, but each student must submit their own answers. – 20%

Final Course Grades

Final course grades are earned according to the following table:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Assigned Grade</th>
</tr>
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<tbody>
<tr>
<td>90-100 Points</td>
<td>A</td>
</tr>
<tr>
<td>80-90 Points</td>
<td>B</td>
</tr>
<tr>
<td>70-80 Points</td>
<td>C</td>
</tr>
<tr>
<td>Under 70 Points</td>
<td>D/F</td>
</tr>
</tbody>
</table>

Final Exam Schedule

The final exam for this class will be scheduled according to the Registrar’s academic calendar website (opens in new window).

Course Policies

E-MAIL:

All students are required to maintain and access their University of Memphis (@memphis.edu) email account. You will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a “full mailbox” condition, etc.) is the student’s responsibility.

Attendance:

You are expected to stay active and engaged throughout the academic term and keep up with the schedule of activities. Your full engagement in the class begins on the first day of the semester and should be maintained until the last assignment is submitted.

Academic Integrity:

The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a
discussion of these codes. Note that using a “Solutions Manual” is considered cheating. Should your professor have evidence that using a “Solutions Manual” has occurred, he/she may take steps as described on the campus’ Office of Student Conduct website (opens in new window). If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College’s Website on Academic Integrity (opens in new window).

**Extra Credit:**

There is no extra credit offered in this course. Your final grade will be computed based on your work on the formal/assessed activities previously described in this syllabus.

**Reporting Illness or Absence:**

Due dates and deadlines have been established for each graded assignment. In this course, deadlines are taken very seriously. Please do not wait until the last day to submit assignments or to take quizzes and exams. If an emergency should arise, it is the student’s responsibility to contact the instructor prior to the deadline to discuss the matter. A deadline extension will be considered only if all of the following conditions are met:

1. Extreme emergency and 2. Instructor contacted prior to the due date.

**Inclement Weather:**

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as TigerText (opens in new window), an emergency alert text messaging service to students, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather. Additional information on TigerText (opens in new window).

**Syllabus Changes:**

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

**Student Services**

Please access the FCBE Student Services (opens in new window) page for information about:

- Students with Disabilities
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance
Course Outline

1st week: Introduction (ch. 1)
2nd week: Regression with single regressor (ch. 2)
3rd week: continue (ch. 2)
4th week: multiple regressors (ch. 3-5)
5th week: continue (ch. 3-5), HW#1
6th week: Nonlinear regression functions (ch.6-7), HW#2
7th week: further discussion (ch.8), cover HWs
8th week: spring break
9th week: Exam I
10th week: Limits of linear regression (ch.9)
11th week: Panel Data (ch.13-14), HW#3
12th week: Instrumental Variables (ch.15), HW#4
13th week: further discussion (ch.15)
14th week: Binary Dependent Variables (ch.16)
15th week: further discussion (ch.16)