Online Course Syllabus BUAN/MECO 6312

Course Information

Course Number/Section 6312.0w1

Course Title Applied Econometrics and Time Series Analysis

Term Fall 2019

Professor Contact Information

Professor Dr. Moran Blueshtein

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Office Location JSOM 14.212
Prof Office Hours by appointment

TA Contact Information

TA Jake Smith

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Office Hours Monday & Wednesday 5:30pm-6:30pm

Course Co-requisites:

OPRE 6301 or SYSM 6303 or FIN 6306

Course Description

The course teaches students to empirically estimate and interpret commonly used econometric techniques to analyze cross-sectional, time series and panel data sets

Student Learning Objectives/Outcomes

Students will be able to use statistical methods to analyze cross-sectional, time series and panel data.

Required Textbooks and Materials

Required Texts

- Hill, Griffiths and Lim., Principles of Econometrics, 4nd edition, Wiley, 2011.

Required Materials

The course requires the use of a software package. I will use STATA and will post examples in STATA. I therefore recommend that you use STATA as well. However if you prefer using R or SAS, I am fine with this too. **Please, do NOT use Excel for this class**.

STATA is NOT available at the computer lab, but it is available on the server. I will arrange remote access to the server to all of you at the beginning of the semester, so that you will not have to purchase a license.

Lecture notes, assignment solutions, codes and any additional material will be posted on the eLearning website of this course.

Textbooks and some other bookstore materials can be ordered online through Off-Campus Books http://www.offcampusbooks.com or the UT Dallas Bookstore http://www.bkstr.com/texasatdallasstore/home. They are also available in stock at both bookstores.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements http://www.utdallas.edu/elearning/students/getting-started.html#techreqs on the Getting Started with eLearning webpage http://www.utdallas.edu/elearning/students/getting-started.html.

Course Access and Navigation

The course can be accessed using the UT Dallas NetID account at: https://elearning.utdallas.edu. Please see the course access and navigation http://www.utdallas.edu/elearning/students/getting-started.html#courseaccessandnav section of the site for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials http://www.utdallas.edu/elearning/students/eLearningTutorialsStudents.html.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The eLearning Support Center http://www.utdallas.edu/elearninghelp services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication.

This course utilizes online tools for interaction and communication.

There are three discussion board forums available for you on e-learning

- Student Introductions where you can introduce yourselves to me and to other students.
- Student Lounge where you can communicate with other students, ask them questions, offer your help etc.

and

O QA for Professor – where you can ask me or the TA questions

I prefer that you communicate with me through the discussion board on e-learning and <u>not</u> through email. Of course if you want to contact me regarding a <u>personal matter</u> – send me an email, but otherwise I expect all communications to be done through "QA for Professor"

<u>on e-learning</u>. The reason is that very often students ask similar questions. It's a more efficient use of our time to answer a question once and make the answer available to all of you. In addition, this way you can also see all the questions and answers and learn from them.

Student discussion board messages will be answered either by me or the TA within $\underline{2}$ business days under normal circumstances. Emails will take much longer (unless it is regarding a personal matter that requires my immediate response). We will typically NOT respond to messages and emails over the weekend.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students page http://www.utdallas.edu/elearning/students/cstudents.htm for details.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk http://www.utdallas.edu/elearninghelp. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Assignments & Academic Calendar

| Week Starting on Monday | TOPIC/LECTURE | READING | ASSESSMENT / ACTIVITY | DUE DATE |
|-------------------------|--|---|------------------------------|--------------------------------|
| 1 Aug 19 | Lecture 1: Introduction | Chapter 1 and Probability Primer | Self-Test 1 Assignment #1 | Aug 29 by end of the day |
| 2 Aug 26 | Lecture 2: Simple Linear Regression Model | Chapter 2 | Self-Test 2 Assignment #2 | Sep 5 by end of the day |

| 3 Sep 2 | Lecture 3: Confidence Intervals and Hypothesis Testing. | Chapter 3 | Self-Test 3 Assignment #3 | Sep 12 by end of the day |
|--------------|---|------------|-------------------------------|--------------------------------|
| 4 Sep 9 | Lecture 4: R^2 and Multiple Linear Regression Model | Chapter 5 | Self- Test 4 | |
| 5 Sep 16 | Lecture 5: Non Linear Relationships and F tests. | Chapter 5 | Self -Test 5 Assignment #4 | Sep 26 By end of the day |
| 6 Sep 23 | Lecture 6: Omitted and Redundant Variables, Selection Criteria and Collinearity | Chapter 6 | Self -Test 6 Assignment #5 | Oct 3 By end of the day |
| 7 Sep 30 | Lecture 7 Indicator variables | Chapter 7 | Self- Test 7 Assignment #6 | Oct 10 by end of the day |
| 8 Oct 7 | Time to prepare for the Exam | | | |
| 9 Oct 14 | Exam week Midterm 1 will be held on Oct 17 (Thursday) –Oct 18 (Friday) See below for more details | | | |
| 10 Oct 21 | Lecture 8 Heteroskedasticity | Chapter 8 | Self -Test 8 Assignment #7 | Oct 31 by end of the day |
| 11 Oct 28 | Lecture 9 Instrumental Variables | Chapter 10 | Self -Test 9 Assignment #8 | Nov 7 by end of the day |

| 12 Nov 4 | Lecture 10 Panel Data | Chapter 15 | Self- Test 10 Assignment #9 | Nov 14 by end of the day |
|--------------|--|------------|---------------------------------|--------------------------------|
| 13 Nov 11 | Lecture 11 Time Series – part 1 | Chapter 9 | Self -Test 11 Assignment #10 | Nov 21 by end of the day |
| 14 Nov 18 | Lecture 12: Time Series – part 2 | Chapter 12 | Self-Test 12 | |
| 15 Nov 25 | Fall Break Have Fun | | | |
| 16 Dec 2 | Exam week Dec 4 (Wednesday) –Dec 5 (Thursday) See below for more details | | | |

Proctored Exam Procedures

The course has two proctored exams. Exams must be taken at a proctored testing center.

- 1. EXAM 1 (2.5 hrs duration): Oct 17 (Thursday) –Oct 18 (Friday) during testing center's operating hours.
- 2. EXAM 2 (2.5 hrs duration): **Dec 4 (Wednesday) –Dec 5 (Thursday)** during testing center's operating hours.

Please see the UTD Testing Center website https://ets.utdallas.edu/testing-center to make arrangements.

It is your responsibility to reserve your seat at the testing center. Check the testing center website for deadlines to register for the exam. If you miss the date, you miss the exam. No exceptions.

Register early if you have other classes or work constraints and you would like to guarantee a seat at your preferred time. Each exam is 2.5 hours, so plan accordingly.

Working students are advised to contact their work place ASAP and to confirm that they can take the exams on time. Be aware that travels - either for work or personal reasons- will not be accommodated. Inform your work place about your exam responsibilities and make sure that no travels are planned in a way that prevents you from taking the exam on time.

Students traveling or living out of Dallas, will be required to take the exam in an off-site (non-UTD) <u>approved</u> testing center. Contact the UTD testing center to locate off-site testing center options. It is your responsibility to confirm that the off-site testing center supports the latest version of UTD Respondus lockdown browser. <u>Please note that online proctoring (such as Examity)</u> is not allowed.

<u>IMPORTANT</u>: If you plan to take the exam at an offsite testing center (non-UTD), then you will need to register your exam with the UTD testing center at least **15 BUSINESS DAYS** (3 weeks or longer if there are university holidays). If you miss this deadline then your only option is to take the exam at the UTD testing center on the designated date.

Grading Policy

Grade Scale:

A, A-, B+, B, B-, C+, C, F

I follow (roughly) a <u>curve</u> with 30% A's (i.e., A, A-), 50% B's (i.e., B+, B, B-), and the rest are C's (i.e., C+, C). Of course, if the appropriate grade is an F, then F it is!

Grades will be based on two **NON-CUMULATIVE** midterms and 10 assignments as follows:

Midterm 1: 35% Midterm 2: 45%

Assignments -20% (2 points for each assignment).

Both exams are closed-book and will comprise both multiple-choice and open questions.

You will have 10 homework assignments. Assignments must be submitted electronically as ONE file (only submissions in pdf format are admissible). All empirical questions must be submitted together with their respective codes. You will receive zero credit for assignments submitted without a code. No exceptions. Do not cheat - work independently and **DO NOT** use past solutions (not even to "verify" your answers). A student who is caught cheating will receive zero credit for that assignment.

Course Policies

Make-up exams: No make-up exam will be given for absence from an exam (zero credit for the missing exam) unless a physician's note is provided

Extra Credit: I have a strict **no extra credit** policy! Please **<u>DO NOT</u>** ask for it it! Really. I will not respond to emails requesting extra credit.

Late Work: Time extensions for assignment only with a very good reason. You will receive zero credit for assignments that are submitted late without my (or the TA's) consent.

Self Test Questions

Each lecture is followed by a set of self-test multiple choice questions. You will have to successfully answer all these questions in order to move to the next lecture. These self-test questions have no effect on your final grade.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor