

**ECON 3318-001: Introduction to Econometrics**  
**Spring 2015**  
**Course Syllabus**

**Course Details**

Time: TR 5:30PM – 6:50PM  
Room: COBA 349

**Instructor Details**

Instructor: Christy Spivey  
Office: COBA 328  
Office Hours: TR 3:30 – 5:00PM, or by appointment  
Email/Phone: cspivey@uta.edu / 817-272-1218  
Blackboard: elearn.uta.edu

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**Course Description and Student Learning Outcomes**

This course is an introduction to regression analysis. Econometrics is a powerful tool that helps answer questions that arise out of economic theory with data. To that end, you will apply statistical techniques to test predictions about the relationships between variables. By the end of the semester you will be able to:

- Understand the conceptual basis for various econometric techniques
- Estimate parameters of a model using a statistical package
- Interpret the results of the estimations you perform

Understanding the conceptual basis for using specific techniques and interpreting the results is considered more important than the ability to prove mathematical results. This is reflected in the coursework.

**Prerequisites**

STAT 3321 (BUSA 3321) or MATH 3313

**Required Book**

Hilmer, Christiana E., and Michael J. Hilmer, Practical Econometrics: Data Collection, Analysis, and Application, any edition.

**Recommended Books (other options)**

Wooldridge, Jeffrey M., Introductory Econometrics: A Modern Approach, any edition.

Hill, R. Carter, William E. Griffiths, and Guay C. Lim, Principles of Econometrics, any edition.

Halcoussis, Dennis, Understanding Econometrics, any edition.

**Assessment**

Your grade will be determined by 3 in-class econometrics quizzes and a final exam. The percentage of total points will be allocated as follows:

Econometrics Quizzes	72% (24% each)
Final Exam	28%

Your letter grade will be determined by the percentage of total points earned as follows:

A      90% and above

- B 80 – 89.99%
- C 70 – 79.99%
- D 60 – 69.99%
- F below 60%

You may wonder over the course of the semester if there will be a curve. The answer is almost certainly no, but if there is one, it is likely to be very small. So, you should ***absolutely not*** depend upon it. I do not determine this until the end of the semester after the final exam. However, you will have an idea of how you are progressing as the semester goes along. Please DO NOT inform me that you need a certain grade in the course in order to graduate, keep your scholarship, keep from getting kicked out of school, etc. I consider this to be a form of harassment. You will receive the grade you earn. In addition, I only assign incompletes in the course for documented health/family emergencies.

### ***Quizzes***

Quizzes will be given at regular intervals throughout the semester. Although the quizzes should be regarded as cumulative, they will emphasize material covered since the last quiz. You will be required to bring computer output from previous homework assignments (since the last quiz) to class for each quiz. You are not allowed to share these materials. Quiz dates are listed below. Please bring a pencil and ***non-programmable, scientific*** calculator to each quiz. ***No makeup quizzes will be given unless my permission is given BEFORE the quiz.*** You can take a makeup quiz early or late ONLY if you have appropriate documentation (e.g., a doctor's note, not simply verification you went to the health center). If you do not contact me prior to a missed quiz you will receive a zero. Makeup quizzes must be taken before the next class meeting.

You will have the opportunity to increase points earned on quizzes by correcting your quizzes once they are handed back to you. ***Your lowest quiz grade will be averaged with the all of your corrected quiz grades, and this average will replace your lowest quiz grade.*** If you only correct one quiz, then the lowest original quiz and the corrected quiz will each be given 50% weight. If you correct all three quizzes, then the lowest original quiz and all three corrected quizzes will be given 25% weight. Quiz corrections are due the class period after the quiz is handed back. Late corrections will not be accepted. Please turn in a corrected quiz (correct only the questions on which you lost points) ***AND*** the original quiz. If for some reason I neglect to post a blank quiz for corrections, you may make corrections on a separate sheet of paper and attach them to the original quiz.

If you feel your original quiz has been graded incorrectly, please submit your issue in writing either on the front of the quiz or on a separate sheet of paper attached to the quiz when you hand in corrections. Please note the question number you are inquiring about and what you think is wrong. If you do not hand in corrections, you have one week after the original quiz has been returned to submit any issues to me. After that, no grade changes will be made.

### ***Final Exam***

The final exam will be cumulative. Substantial improvement shown on the final exam relative to quiz performance may be factored into your final grade.

You must take the final exam at the university-scheduled time. It is my policy not to provide the day and time of the final exam. It is your responsibility to find the day and time online ***AND*** to confirm it with a classmate.

## Homeworks

Most homework assignments will require you to manipulate datasets using a statistical package called Stata. It has been installed in our classroom for your use, and some class time will be allotted to completing the computer portion of homework assignments. Please see the lab schedule to see when Stata is available to you outside of class time. You may also choose to purchase Stata at a reduced rate, but this is not required. To purchase Stata, visit the following website: <http://www.stata.com/order/new/edu/gradplans/gp-direct.html>. It can also be purchased at the bookstore. The 6-month license for Small Stata 12 (\$35) is sufficient for this course. I will provide you with instructions on how to use Stata. Datasets will be posted on Blackboard.

While homeworks are not officially collected, you are required to bring all output from current homework problems to the next quiz *in the form of a Stata log file*. These log files will allow you to answer some quiz questions. Therefore, failure to complete these exercises will jeopardize your chance of passing the quiz. You may work with others on your homework assignments, but you must have your own Stata log file(s) for all homework problems that require use of Stata. Note that some homework problems do not require use of Stata. However, completing these will also help you answer some quiz questions. Answers to all homework problems will be provided to you so that you can check your answers, but Stata code will not be provided. When turning in your quiz, please also turn in your Stata log file(s). The log file must include the starting and ending time of the Stata session. ONLY Stata log files containing output from your commands are permitted during quizzes; answers to homework problems and notes to yourself on how to work homework problems are NOT permitted.

## Important Dates

Thursday, February 12

Quiz 1

Tuesday, March 17

Quiz 2

Tuesday, April 14

Quiz 3

**Week of May 11**

**Final Exam**

## Course Outline

The following is a general schedule of the topics to be covered, as well as the readings that go along with the topics. I have created a tentative timetable for the topics (attached), subject to change.

Topic	Hilmer and Hilmer	Wooldridge
Introduction, What is Econometrics?	Chapter 1 (on your own)	Chapter 1 (on your own)
Review: Mathematical Tools	Chapter 3 (on your own)	Appendices A, B, C (on your own)
The Simple Regression Model	Chapter 4, 8.1	Chapter 2
Multiple Regression: Estimation	Chapter 6	Chapter 3
Multiple Regression: Inference	Chapter 5, 8.8	Chapter 4
Multiple Regression: Further Issues	Chapter 7.2-7.5, 9	Chapter 6.2-6.4, Chapter 8
Qualitative Independent (Dummy) Variables	Chapter 7.1	Chapter 7.1-7.4
Limited Dependent Variable Models	Chapter 12.1	Chapter 7.5-7.6, 17.1
Causation (if time allows):		
Quasi-Experimental Methods	Chapter 15.4	Chapter 13.2
Fixed Effects (Panel Data)	Chapter 13.1, 13.3	Chapter 14.1-14.2
Instrumental Variables	Chapter 14.2	Chapter 15.1-15.2

## **Expectations**

Treat this syllabus as a contract that you have “signed” by enrolling in the course. I will try to remind everyone of upcoming deadlines, but you are responsible for remembering all important dates. I reserve the right to make changes to the syllabus during the semester, although I will try not to do so. Any changes will be communicated to you via email and/or during class. You are responsible for being aware of these changes. Please refrain from asking me questions that can be answered by reading this document.

## **Communication**

I will post documents such as PowerPoint slides, homeworks, datasets, and old quizzes on Blackboard. I will also email you, so **please check your university-provided email account daily**. Please feel free to email me at the address listed above to ask a question or set up an appointment. I check email regularly most Mondays-Fridays, but I cannot guarantee a quick response over the weekend or late at night. I will not be able to accommodate requests to call you on the telephone. I also request that you communicate with me if you have concerns about any aspect of the course. I appreciate feedback.

## **Attendance**

At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students’ academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have decided that attendance will not be a formal part of your assessment. However, I reserve the right to take attendance and use that information to give extra credit or when determining whether to “round up” when determining final grades. Thus, you are strongly encouraged to attend every class and arrive to class ON TIME (I understand there are legitimate reasons for being late, so please enter QUIETLY if you cannot help being late). You are also expected to silence your cell phone. **You are responsible for all material covered in class whether you are present or not (including material not covered in the text). If you miss a class, you should get notes from a classmate and review them BEFORE coming to me for help on that particular topic.** I will not provide you with class notes beyond what is contained in the PowerPoint slides.

## **Keeping Up**

Taking notes will be much easier if you print the PowerPoint slides for the current topic and bring them to class. However, please realize that the slides do not include everything covered in class and are a poor substitute for taking your own notes. You should read the relevant sections of the text listed in the course outline as many times as needed to feel that you have a grasp on the material. This class requires that you master many skills, so keeping up with the material takes time, thought, and effort. It does not lend itself to all-night cram sessions. However, if you are willing to work hard understanding the concepts, you are likely to succeed in this course. I want everyone to do well, and everyone is given that opportunity. **Please ask questions in class and come see me during office hours (or schedule an appointment) if you need further clarification.** I do not know if you don’t understand something unless you tell me!

## **Academic Integrity**

All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

According to the UT System Regents' Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

***More specifically related to this course, academic dishonesty includes communicating with other students during quizzes and exams; referencing books, notes or "cheat sheets" during quizzes and exams (except when authorized); copying someone else's work when correcting quizzes or preparing the project; representing someone else's Stata log files as your own; and fabricating data or regression results. In addition to the disciplinary action mentioned above, violators will automatically receive a grade of zero on the quiz or exam.***

## **Administrative Policies**

### ***Drop Policy***

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session (***April 3 for Spring 2015***). **Note: I am unable to sign a drop form after the official deadline.** It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

### ***Student Feedback Survey***

At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

### ***Final Review Week***

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities, such as required field trips or performances; and no instructor shall assign any themes,<sup>5</sup>

research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

### ***Student Support Services***

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

### ***Electronic Communication***

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

### ***Americans with Disabilities Act***

The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

### ***Title IX***

The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).

### ***Emergency Exit Procedures***

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

***Inclement Weather Policy***

In the event that the university cancels class due to inclement weather, any exam scheduled that day will automatically be scheduled during the next class period. Please check your university-provided email account regularly if bad weather is in the area.

**Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.

<b>Introduction to Econometrics</b>			
<b>Spring 2015</b>			
<b>Tentative Schedule of Topics</b>			
<b>Lecture</b>	<b>Day</b>	<b>Date</b>	<b>Topic</b>
1	Tuesday	Jan 20	Welcome
2	Thursday	Jan 22	The Simple Regression Model
3	Tuesday	Jan 27	The Simple Regression Model
4	Thursday	Jan 29	The Simple Regression Model
5	Tuesday	Feb 3	STATA Lab: Warm-Up, The Simple Regression Model
6	Thursday	Feb 5	The Simple Regression Model
7	Tuesday	Feb 10	Simple Regression
8	Thursday	Feb 12	Quiz 1
9	Tuesday	Feb 17	Multiple Regression: Estimation
10	Thursday	Feb 19	Multiple Regression: Estimation
11	Tuesday	Feb 24	Multiple Regression: Estimation
12	Thursday	Feb 26	Multiple Regression: Estimation
13	Tuesday	Mar 3	Multiple Regression: Inference
14	Thursday	Mar 5	Multiple Regression: Inference
	Tuesday	Mar 10	SPRING BREAK
	Thursday	Mar 12	SPRING BREAK
15	Tuesday	Mar 17	Quiz 2
16	Thursday	Mar 19	Multiple Regression: Inference
17	Tuesday	Mar 24	Multiple Regression: Inference
18	Thursday	Mar 26	Multiple Regression: Further Issues
19	Tuesday	Mar 31	Multiple Regression: Further Issues
20	Thursday	Apr 2	Multiple Regression: Further Issues
21	Tuesday	Apr 7	Multiple Regression: Further Issues
22	Thursday	Apr 9	Dummy Variables
23	Tuesday	Apr 14	Quiz 3
24	Thursday	Apr 16	Dummy Variables
25	Tuesday	Apr 21	Dummy Variables
26	Thursday	Apr 23	Dummy Variables
27	Tuesday	Apr 28	Limited Dependent Variables
28	Thursday	Apr 30	Limited Dependent Variables
29	Tuesday	May 5	Limited Dependent Variables
30	Thursday	May 7	Review for Final Exam