Moravian College Department of Economics and Business Economics 256: Applied Econometrics all 2014 (MW 8:55-10:05 and E 7:30-8:40 or 8:55-10:0

Fall 2014 (M W 8:55-10:05 and F 7:30-8:40 or 8:55-10:05)

Instructor:Eva Marikova Leeds, Ph.D., ProfessorOffice:Comenius 214Office Phone:610-861-1446e-mail:marik@moravian.eduOffice Hours:M W 4:00-5:30 PM and by appointment

Home phone: 610-896-7865

Prerequisites: ECON 152 and ECON 156

Text: A. H. Studenmund, *Using Econometrics,* Pearson/Addison Wesley, 2011, 6th edition. Bring it to class every day!

Course Objectives: This course applies statistical techniques to economic models. Specifically, you will

- Review basic statistical concepts and notation
- Learn how to gather data
- Become familiar with the differences between Excel and SPSS
- Apply the classical regression model to different data sets
- Learn how to deal with different complications that arise in regression estimation, including selfselection and simultaneous determination
- Test hypotheses and evaluate the size of the effect

Requirements:

Homework is due every time we finish a chapter. Doing homework is the best way to learn the material—and some homework problems are on the exams! Every <u>neat</u> and <u>completed</u> homework counts for 0.5% of your grade; it is not graded. I distribute or post answers to all HW, and I review selected HW problems in class.

Some **lab** work is based on <u>data sets</u> provided by the book. See the instructions on p. 25. Turn in all HW before class time on the day it is due. Make **two** copies of HW 6 and 13 so you can turn one in and keep your notes as well. I do **not** accept late HW.

- If you are doing HW with someone else, you must acknowledge any help received, or provided, by writing the other student's or tutor's name on your HW.
- If you fail to do the HW, your final grade will be two fractions of a grade lower. Moreover, you will struggle with the exams, which will endanger your grade.

Two **regression** projects consist of finding and analyzing some publically available data. The simple regression project (due October 22) is a thorough review of ECON 156, and the multiple regression project (due November 12) incorporates the techniques from this course.

There are **four exams**. I provide all necessary formulas, but you must memorize the simplest ones. A take-home **final** is optional and can replace your lowest exam grade. It is a project using techniques from Chapters 13 or 16. There are **no make-up exams**. If you miss an exam, you must do the final project. Using **phones** and **leaving** the classroom are prohibited during any exam, but calculators are allowed.

Exam dates:	Exam 1:	September 17 (Wednesday)
	Exam 2:	October 8 (Wednesday)
	Exam 3:	November 5 (Wednesday)
	Exam 4:	November 19 (Wednesday)

Expectations: Some of you may find econometrics very challenging, but with diligence and dedication all of you can earn a good grade. I encourage you to see me during office hours, both alone and in groups. To ease your HW and exam preparation, I hand out notes; I post slides and make announcements on *Blackboard*. Check the site regularly!

	Times per week	14 weeks	Hours	
In-class time			30	
Syllabus review			1	
Reading	4		56	
HW	3		42	
Evening Reviews			5	
Simple Regression Pro	oject		10	
Multiple Regression P	roject		20	
Final Project			<u>10</u>	
Total			174	
o "			00/	
Grading:	Homework (text) Lab exercises		6% 4%	
	Simple Regression Pro	vioet	4% 10%	
	Multiple Regression Pr	•	20%	
	Four Exams	OJECI	20 <i>%</i> 60%	
			0070	
Grading Scale:				
j	93 - 100: A	90 - 92.99; A·		
87 - 89.99: B+	83 - 86.99: B	80 - 82.99: B·		
77 - 79.99: C+	73 - 76.99: C	70 - 72.99: C	-	
67 - 69.99: D+	63 - 66.99: D	60 - 62.99: D	-	00 - 59.99: F

I usually curve the exams (up to 100%) to give half the class As and Bs (and half C or less).

Attendance Policy:

I urge you to come to class regularly! Attendance does not enter your grade directly, but it has a large impact indirectly. It allows you to participate, learn from your classmates, and get a better sense of what is important. Moreover, the lectures and the text reinforce one another.

Academic Honesty Policy:

I encourage you to study in groups and to discuss all homework, but you must write the names of all students in the group on your homework **and** you must write your own answers to earn any credit. If you work in groups, acknowledge it, yet provide the same answers, you earn one credit for the entire group. The following rule holds for both homework and exams: If you copy an answer from another student or if you let another student copy from you, you will receive **zero** for the whole assignment or exam. Note that the punishment is the same for both parties.

Beware of **plagiarism**! If you are lifting phrases (of more than <u>three consecutive</u> words) or entire definitions from the textbook, the web, or any other source, use quotation marks and provide the page number, the URL, or the source citation. If you fail to use quotes, you will get **zero** for the HW. Read the college academic honesty policy at <u>http://www.moravian.edu/studentLife/handbook/academic/academic2.html</u>

Special Accommodations:

Students who wish to request accommodations in this class for a disability must contact Ms. Elaine Mara, assistant director of academic support services for academic and disability support, at the lower level of Monocacy Hall, or by calling <u>610-861-1401</u>. Accommodations cannot be provided until authorization is received from the Academic Support Center.

Schedule							
Week of:	Topics	Text					
August 25	Regression Analysis Lab: Multiple regression using Excel; Dummy variables	Chapter 1 RATE1					
September 1 (no Labor Day)	Ordinary Least Squares Gary Smith: Statistics for Liberal Arts Students	Chapter 2					
	Home Lab: SPSS handout	FINAID2					
September 8	Using Regression Lab: R ²	Chapter 3 IPOD3					
September 15	The Classical Model Exam 1 (9-17-14)	Chapter 4 Chapters 1-3					
	Lab: Different samples: different estimates; return exam	•					
September 22	Hypothesis Testing Data for simple regression (9-24-14) Lab: Start project	Chapter 5					
September 29	Choosing Variables Running Your Own Regression Project	Chapter 6 Chapter 11					
	Lab: Creating bias						
October 6	Review Exam 2 (10-8-14)	Chapters 4-6 Chapters 4-6					
	Lab: Return exam						
October 13	Fall Break						
(1 class & lab)	Choosing a Functional Form Lab: Functional forms	Chapter 7 HOUSE11					
October 20	Multicollinearity Simple regression project (10-22-14)	Chapter 8					
	Lab: Diagnosing multicollinearity	SAT8					
October 27	Serial Correlation Heteroskedasticity	Chapter 9 Chapter 10					
	Data for multiple regression (10-29-14) Lab: Creating data with random and correlated errors	DODGERS9 & GAS10					
November 3	Time-Series Models Dummy Dependent Variables	Chapter 12 Chapter 13					
	Exam 3 (11-5-14)	Chapters 7-9					
	Lab: Return exam	MOUSE12					
November 10	Dummy Dependent Variables	Chapter 13					
	Experimental and Panel Data Multiple Regression (11-12-14)	Chapter 16					
	Lab	WOMEN13					
November 17		Chapters 10-13					
	Exam 4 (11-19-14) Lab: Return exam	Chapters 10-13					

November 24 (1 class)	Experimental and Panel Data <u>Thanksgiving Break</u>	Chapter 16
December 2	Experimental and Panel Data Evaluations	Chapter 16
December 9	Final project is due at 11:30—no extensions	

The syllabus is subject to change—the changes will be posted on *Blackboard*.

National Geographic, June 2012, p. 35