

Moravian College
Department of Economics and Business
Economics 256: Applied Econometrics
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., Professor
Office: Comenius 214
Office Phone: 610-861-1446 Home phone: 610-896-7865
e-mail: marik@moravian.edu
Office Hours: M W 4:00-5:30 PM and by appointment

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 self-selection 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 neat and completed 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 [data sets](#) 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 Project | | | 10 |
| Multiple Regression Project | | | 20 |
| Final Project | | | <u>10</u> |
| Total | | | 174 |

| | | |
|-----------------|-----------------------------|-----|
| Grading: | Homework (text) | 6% |
| | Lab exercises | 4% |
| | Simple Regression Project | 10% |
| | Multiple Regression Project | 20% |
| | Four Exams | 60% |

Grading Scale:

| | | | |
|----------------|---------------|----------------|---------------|
| | 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 three consecutive 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 <http://www.moravian.edu/studentLife/handbook/academic/academic2.html>

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 [610-861-1401](tel:610-861-1401). 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 Home Lab: SPSS handout | Chapter 2 FINAID2 |
| September 8 | Using Regression Lab: R^2 | Chapter 3 IPOD3 |
| September 15 | The Classical Model Exam 1 (9-17-14) Lab: Different samples: different estimates; return exam | Chapter 4 Chapters 1-3 DRINKS4 |
| 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 Lab: Creating bias | Chapter 6 Chapter 11 |
| October 6 | Review Exam 2 (10-8-14) Lab: Return exam | Chapters 4-6 Chapters 4-6 |
| October 13 (1 class & lab) | <u>Fall Break</u> Choosing a Functional Form Lab: Functional forms | Chapter 7 HOUSE11 |
| October 20 | Multicollinearity Simple regression project (10-22-14) Lab: Diagnosing multicollinearity | Chapter 8 SAT8 |
| October 27 | Serial Correlation Heteroskedasticity Data for multiple regression (10-29-14) Lab: Creating data with random and correlated errors | Chapter 9 Chapter 10 DODGERS9 & GAS10 |
| November 3 | Time-Series Models Dummy Dependent Variables Exam 3 (11-5-14) Lab: Return exam | Chapter 12 Chapter 13 Chapters 7-9 MOUSE12 |
| November 10 | Dummy Dependent Variables Experimental and Panel Data Multiple Regression (11-12-14) Lab | Chapter 13 Chapter 16 WOMEN13 |
| November 17 | Review Exam 4 (11-19-14) Lab: Return exam | Chapters 10-13 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