

Econometrics II
Economics 2123B – 001/002
Department of Economics
Western University
Course Outline

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January 2017

Course meets: Section 001 Tuesday 8:30 – 10:30, Thursday 8:30 – 9:30 SSC 2028
Section 002 Monday, Wednesday, Friday 2:30 – 3:30 UCC 41
Office Hours: Monday, Wednesday, 3:30 – 4: 30, Friday 1:30 – 2:30 or by appointment
Course website: <https://owl.uwo.ca/portal>
Undergraduate Enquiries: 519-661-3507, Room 4075 SSC

Registration

You are responsible for ensuring you are registered in the correct courses. If you are not registered in this course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at <https://student.uwo.ca>. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

Prerequisite Note

The prerequisites for this course are **Economics 2122A/B**; and 0.5 from **Mathematics 1225A/B, Calculus 1000A/B, Calculus 1500A/B** or the former **Calculus 1100A/B**.

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken an anti-requisite course. Lack of pre-requisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record, but will ensure that spaces become available for students who require the course in question for graduation.

Summary Description of Course

This class will examine in detail the linear, single equation regression model. We will first review the simple linear regression model, and the properties of the Least Squares regression estimates. Then we will examine the multiple regression model and the properties of the estimates. We will then relax the basic assumptions one at a time to determine the effect this has on the properties of the estimates, and what can be done to correct any problems that arise. We will then examine extensions to the regression model.

Learning Outcomes

Students will be able to identify what a linear regression model is revealing about an economic relationship.

Students will be able to analyze the properties of the linear regression model.

Students will be able to interpret quantitative results, and make valid statistical conclusions.

Students will be able to identify when the underlying assumptions have been violated, through testing and interpreting results, and how violations affect conclusions.

Students will be able apply the proper estimation approach to correct for various violations for the underlying assumptions.

Assessment:

There will be four assignments worth 20%, a midterm worth 30% each, and a final exam worth 50%. Non-programmable calculators are permitted.

Assignments are to be handed in at the beginning of class on the due date.

Students who do not sit for the midterm and have valid documented reason will have their final examination reweighted to 80%. There will be NO make-up examination

Midterm Saturday, March 4, 2017, 2:00 – 4:00 am

Final examination, Set by Registrar

Textbook

Stock, James and Watson, Mark: *Introductions to Econometrics*, 3rd edition. Pearson

Course Outline

The Chapter references in the outline of topics below refer to the textbook. Some material in some chapters will be omitted from the course,

1. Introduction – Introduction and Review
 - What is Econometrics.
 - Methodology of Econometrics

2. Linear Regression Model – Ch.4,5
 - Population regression function
 - Error term
 - Ordinary least squares
 - Goodness of fit
 - Properties of estimates
 - Hypothesis testing
 - Use of Dummy variables
 - Estimation in the presence of Heteroscedasticity
 - Generalized Least Squares – Ch.17
 - Extensions to linear regression

3. Multiple Regression Analysis – Ch. 6,7
 - Meaning of estimated Coefficients
 - Goodness of fit measures
 - Properties of Estimates
 - Hypothesis testing
 - Effects of leaving a variable out of the regression
 - Testing linear restrictions

4. Autocorrelation – Ch. 10
 - Estimation in the presence of Autocorrelation
 - Correcting for Autocorrelation

5. Distributed lag Models – Ch. 114
 - Lagged models
 - Distributed lags

Schedule for Assignments

Assignment 1: Due Section 001, Thurs., Jan 26, 2017. Section 002, Fri., Jan 27, 2017
Assignment 2: Due Section 001, Thurs., Feb 16, 2017. Section 002, Fri., Feb 17, 2017
Assignment 3: Due Section 001, Thurs., Mar 9, 2017. Section 002, Fri., Mar 10, 2017
Assignment 4: Due Section 001, Thurs., Mar 23, 2017. Section 002, Fri. Mar 24, 2017

Please Note
Department Policies for 2016 – 2017

Remember that the University expects all students to take responsibility for their own academic Programs. Also remember to check your registration to make sure you are enrolled in the correct courses.

1. Guidelines and policies for the Faculty of Social Science and the Department of Economics are posted online in the current Western Academic Calendar at <http://westerncalendar.uwo.ca>.
2. Students must familiarize themselves with the “Rules of Conduct for Examinations” <http://westerncalendar.uwo.ca/2016/pg136.html>.
3. **Cheating as an academic offence:** Students are responsible for understanding what it means to “cheat”. The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other economics courses or programs. The University may impose further penalties such as a notation on your official academic transcript, suspension or expulsion.
4. **Plagiarism:** Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge it by using quotation marks where appropriate and referencing with footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the current UWO Academic Calendar at <http://westerncalendar.uwo.ca/2016/pg113.html>).

The University of Western Ontario uses software to check for plagiarism and students may be required to submit their written work in electronic form. Those found guilty will have penalties imposed as noted in point 3.

5. It is Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students are responsible for submitting assignments in class or to the instructor during office hours.
6. When appealing a mark, students should refer to the University’s Procedures in the current UWO Academic Calendar (<http://westerncalendar.uwo.ca/2016/pg112.html>). Please note the relevant deadlines.

The Department will not consider any appeal unless an attempt has been made to settle the matter first with your instructor. If after this discussion you remain dissatisfied with a grade or other decision, you may proceed with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for your appeal. A useful form and checklist is provided at (http://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals).

7. Systematic adjustments of a class grade distribution (either up or down) can occur in Economics courses. The fact that grades have been adjusted is **not** grounds for an appeal.
8. Note the following add and drop deadlines:

Last day to **add** a first term half course:
Friday, January 13th, 2017

Last day to **drop** first term half course without academic penalty:
Tuesday, March 7th, 2017
9. Faculty of Social Science policy states that oversleeping or misreading an exam schedule is not an excuse for a make-up. This rule applies to all mid-term tests and final exams in the Department of Economics.

Policy Regarding Makeup Tests and Final Examinations

*Academic Accommodation will **not** be granted automatically on request. You **must** demonstrate by documentation that there are **compelling** medical or compassionate grounds before academic accommodation will be considered.*

If you decide to write a test or an examination, you must be prepared to accept the mark you earn. Rewriting tests or examinations, or having the value of the test or examination reweighted on a retroactive basis, is **not** permitted. Book airline flights after you know the dates of your final examinations. Airline flights must not conflict with test or final exams.

If you are requesting a makeup test for a midterm or a final examination, unless medically incapable, notify your instructor by email or phone, preferably prior to the scheduled date of the test, but definitely within **24 hours** of the date of the test or exam. Failure to follow this procedure may result in denial of a request for academic accommodation or result in a grade of zero. Set up an appointment as soon as possible to meet personally with your instructor. If the instructor is not available, you may send an email message, copying the Undergraduate Coordinator at econugrd@uwo.ca (Social Science Room 4075). **Notifying your instructor of a missed test or exam does not automatically entitle you to a makeup test.**

Students who seek a makeup test or examination must provide medical or other relevant verification that their absence from a regularly scheduled test or examination is beyond their control. Documentation must support your reasons. Medical documentation should be given to the Academic Counselling Office of your *home* Faculty **as soon as possible (preferably within 24 hours of the test)** if you know you may not be able to write your final examination on the scheduled day and time. Failure to follow this procedure, or to provide supporting documentation, may result in denial of a request for academic accommodation or result in a grade of zero. If your documentation is not acceptable, you will be given a zero for the missed test.

For personal illness, if you consult Student Health Services regarding your illness or personal problem, you should request a Student Medical Certificate from the physician. If you were seen by an off-campus doctor, obtain a certificate from his/her office at the time of your visit. The off-campus medical certificate form must be used and can be found at: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf. Notes stating "For Medical Reasons" are not considered sufficient.

For any other circumstances, if you are not sure what documentation to provide, ask your Academic Counselor. If your documentation is judged sufficient, the academic counselor will issue a Recommendation for a Special Examination (a single form for midterms or a triple color form for final examinations). Once you have this form, contact your instructor as soon as possible to make arrangements. Even if approved from your home faculty Academic Counsellor, there is no guarantee that you will be allowed to write the makeup test and exam.

For final examinations, you need permission from your *home* Faculty Counsellor, your instructor, and the Department Undergraduate Director. Failure to follow this procedure may result in an examination grade of zero. You must ensure that the Special Examination form has been signed by the instructor and Department Undergraduate Director and that the form is returned to the Academic Counseling Office for approval without delay. Make-up final examinations, if permitted, will be written within one month of the end of the exam period.

Policies Regarding Academic Accommodation

Information about the Faculty of Social Science's policies regarding academic accommodation is found on its website at <http://counselling.ssc.uwo.ca/procedures/havingproblems.asp> or in Social Science Room 2105. Your "Academic Rights and Responsibilities" are also outlined in the current UWO Calendar at <http://westerncalendar.uwo.ca/2016/pg111.html>. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated procedures.

Policy Regarding Class Attendance

If your instructor views your class attendance as unsatisfactory, you can be prohibited from writing the final examination. If there is intent to make use of this University policy, you will be notified in writing.

Statement on Mental Health and Support Services

If you or someone you know is experiencing emotional/mental distress, there are several resources here at Western to assist you. Please visit <http://www.uwo.ca/uwocom/mentalhealth/> for more information and a complete list of resources, as well as how to obtain help.