

**ECONOMETRICS II**  
**ECONOMICS 2123B - 001**

Department of Economics  
Western University

George Orlov

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**Office:** SSC 4048

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**Class Location:** SSC 3028

**Class Hours:** Monday & Wednesday, 7:00 pm - 10:00 pm

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

**Course Website:** <https://owl.uwo.ca>

**Undergraduate Inquiries (Room SSC 4075):**

Phone: 519-661-3507

E-mail: econ-undergrad@uwo.ca

## **Registration and Prerequisites**

### **Registration Note**

You are responsible for ensuring you are registered in the correct courses. If you are not registered in a 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 course 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 [in this case, *Economics 2223A/B*]. Lack of prerequisites 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.

## Course Information

### Course Objective

The goal of this course is to give students a thorough understanding of the basic tools of econometric analysis using commonly used regression models. The class will study both theoretical foundations and empirical applications of econometric models.

### Learning Outcomes

- Students will learn how to formulate, estimate, and test economic models.
- Students will be able to identify what linear regression models reveal about economic relationships and interpret the obtained quantitative results.
- Students will learn and be able to apply appropriate techniques to perform valid statistical inference.

### Meetings

The lecture hours are Monday and Wednesday from 7:00 pm to 10:00 pm and will take place in SSC 3028. I will be available in SSC 4107 (rather than my office) for the scheduled office hours and in my office (SSC 4048) by appointment in situations where you have questions but unable to make it to my office hours. I will accommodate appointment requests submitted 48 hours before the requested appointment. I will make an announcement in case any additional office hours will be held prior to the midterm examination or the final examination. When contacting me by e-mail, please, use your UWO e-mail and indicate **ECON 2123** as the subject of the message. I will not answer material-related questions via e-mail. Please, note that while class attendance is not a component of your grade it is essential for the successful completion of the course.

## Course Materials

### Textbooks

Christopher Dougherty, *Introduction to Econometrics*, Fourth Edition, Oxford University Press, 2011

### Lecture Slides

Most of the material taught will come from the required textbook. Students will also be responsible for material covered in the lectures but not present in the textbook. The lecture slides will be posted on the course website; however, they may not contain the detailed solutions and examples provided during the class time. If a student misses any classes, he/she will be responsible for obtaining the notes from other students.

## Outline of Topics Covered

Specific information on required readings will be provided in the lectures. The chapters come from the Dougherty's *Introduction to Econometrics* (Fourth Edition) text.

- Part I: Review of Probability and Statistics
  1. Random Variables, Sampling, and Estimation (Review)
- Part II: Regression Analysis
  1. Simple Regression Analysis (Chapter 1)
  2. Properties of Regression Coefficients and Hypothesis Testing (Chapter 2)
  3. Multiple Regression Analysis (Chapter 3)
  4. Nonlinear Models and Transformations of Variables (Chapter 4)
  5. Dummy Variables (Chapter 5)
- Part III: Improving Our Models
  1. Specification of Regression Variables (Chapter 6)
  2. Heteroscedasticity (Chapter 7)
  3. Measurement Error (Chapter 8)
- Part IV: Additional Topics in Regression Analysis
  1. Choice and Limited Dependent Variables (Chapter 10)
  2. Time Series Analysis (Chapter 11, Chapter 12)

The coverage of topics in Part IV will be subject to time availability.

## Evaluation

### Assessment

The final grade will be determined based on four graded assignments worth 25% in total, one midterm test worth 30%, and a final examination worth 45%.

Component	Weight	Date	Time
Assignment 1	6.25%	June 29, 2016	Due at the beginning of class
Assignment 2	6.25%	July 6, 2016	Due at the beginning of class
Midterm	30.00%	July 11, 2016	During class time
Assignment 3	6.25%	July 20, 2016	Due at the beginning of class
Assignment 4	6.25%	July 27, 2016	Due at the beginning of class
Final	45.00%	<i>Scheduled by the Registrar's Office</i>	

Assignments are due at the beginning of class. **Late assignments (submitted later than 7:15 pm) and missed assignments will be awarded the grade of zero.** Students will be provided with instructions regarding the required formatting of assignments at the beginning of the course. The midterm test will be administered during class time. There will be a lecture following the midterm. The time and location of the final examination will be provided by the Registrar's Office. **I will announce the material covered by the midterm examination and the final examination in class.**

### **Policy on Missed Exams and Quizzes**

If you miss the midterm, it is your responsibility to inform the instructor within 48 hours of the exam. Only absences with a valid reason, with proper approved documentation, will be granted accommodation. Otherwise, you will receive a mark of zero. If the midterm is missed, its weight will be transferred to the final examination. Hence, the final examination will have the weight of 75%. No make-up midterms will be provided.

### **Statement on the Use of Electronic Devices**

Please, note that the only electronic devices permitted for use during the midterm test and the final examination are **non-programmable calculators** (scientific or plain). Students are responsible for verifying that the calculators they intend to use during an examination does not have programmable memory functionality. Students' cellphones, tablets, and other electronic devices with similar capabilities are to be switched off and remain in their bags for the duration of the examination.

### **Statement on Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

## Please Note

### Department Policies – Summer 2016

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 behaviour. 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](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:

Dates for **adding** courses in the summer:

Last day to <u>add</u> a Distance Studies Course	Monday, May 13, 2016
Last day to <u>add</u> an Intersession Course:	Tuesday, May 17, 2016
Last day to <u>add</u> a first term half course Summer Evening:	Friday, May 8, 2016
Last day to <u>add</u> a second term half course Summer Evening:	Friday, June 24, 2016

Dates for **dropping** Courses in the summer:

Last day to <u>drop</u> a Distance Studies Course	Monday, June 13, 2016
Last day to <u>drop</u> an Intersession Course	Monday, June 6, 2016
Last day to <u>drop</u> a first term half course Summer Evening:	Monday, June 6, 2016
Last day to <u>drop</u> a second term half course Summer Evening:	Friday, July 18, 2016

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](mailto: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](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 Counsellor. 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 ASAP 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 Chair. 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 Chair 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 debarred 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.