Jin Zhou
Office: SSC 4062
Phone: 519 661-2211, ext. 85263
Office Hours: M,W 4:00-5:00 pm
Course Time and Location: M,W 7:00-10:00 pm, Room SSC 3006
Email: izhou253@uwo.ca
Undergraduate inquiries: 519-661-3507 SSC Room 4075 or econugrd@uwo.ca

Registration:
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://studentservices.uwo.ca/secure/index.cfm. If you notice a problem, please contact your Faculty Academic Counsellor immediately.

Prerequisite Note:
The prerequisites for this course are Economics 1021A/B and 1022A/B, or Economics 1020 or 2001A/B, and one of MCV4U, Mathematics 0110A/B, Calculus 1000A/B, Mathematics 1225A/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.

Course Objective:
How to effectively judge whether stock A has a higher return than stock B, given one month data on the prices of the two? How to see if unemployment rate goes down when GDP goes up?

This course is aimed to introduce you with basic statistical concepts that can help you answer the above questions more effectively. You will learn how to describe the data,
analyze the data with an appropriate statistical technique, and interpret your results to better address these questions.

This course also serves as a stepping stone to a higher level of econometric class.

**Learning Outcomes:**

Students will understand and be able to clearly explain basic statistical such as the mean and variance of a distribution and the difference between a population and a sample.

They will also understand concepts from probability theory such as event, conditional probability and Bayes’ theorem, and be able to use them to determine the probability of the occurrence of specific outcomes.

Students will be familiar with the concept of hypothesis testing and be able to conduct a hypothesis test from appropriate information as well as know how to assess the power of such a test.

Students will understand the concept of the simple least squares regression and how it is constructed and will be able to interpret the results of such a regression using concepts from earlier in the course including hypothesis testing.

**Textbook:**


**Assessment:**

(i) Three out of four graded assignments  20%
(ii) Midterm  30%
(iii) Final exam  50%

**Note:**

1. Assignments are required to be handed in before the due date. No late assignment will be accepted.

2. Students who cannot take the mid-term exam and have a valid documented reason will have their final exam re-weighted to 85%. No make-up exams will be arranged.

**Course Topic**  

May 5

<table>
<thead>
<tr>
<th>Course Topic</th>
<th>Timeline*</th>
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<tbody>
<tr>
<td>(1) Introduction to Statistics (Chapter 1)</td>
<td>May 5</td>
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<tr>
<td>(i) Uncertainty</td>
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<td>(ii) Types of variables</td>
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<td>(iii) Graph description of variables</td>
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</table>
(2) Central Tendency, Variability and Correlation of Data (Chapter 2) May 5
   (i) Mean, Median, Mode and Percentiles
   (ii) Variance and Standard Deviation
   (iii) Correlation between Variables
   (iv) Chebyshev’s Theorem
   (v) Grouped Data

(3) Probability Theory (Chapter 3) May 7
   (i) Random Experiments, Outcomes and Events
   (ii) Classical Probability
   (iii) Conditional Probability and Independence
   (iv) Bayes’ Theorem

(4) Discrete Random Variable (Chapter 4) May 12
   (i) Expectation and Variance
   (ii) Binomial and Poisson Distributions
   (iii) Joint Distribution of Two Discrete Random Variables

(5) Continuous Random Variable (Chapter 5) May 14
   (i) Expectation and Variance
   (ii) Normal Distributions
   (iii) Joint Distribution of Two Continuous Random Variables

(6) Sampling and Sample Distributions (Chapter 6) May 21
   (i) Sampling
   (ii) Central Limit Theorem
   (iii) Acceptance Intervals
   (iv) Sampling Distribution of Sample Means and Sample Percentiles

(7) Estimation (Chapter 7 and 8) May 26 and 28
   (i) Point Estimates: Unbiasedness and Efficiency
   (ii) Confidence Intervals

(8) Hypothesis Testing (Chapter 9 and 10) June 2 and 4
   (i) Test Mean and Variance of a Normal Distribution
   (ii) Power of a Test

(9) Simple Linear Regression (Chapter 11) June 9
   (i) Least Square Estimators
   (ii) Explanatory Power: R-Square
   (iii) Inference on Slope Coefficients
   (iv) Prediction
   (v) Correlation Analysis

*The time arrangement could differ slightly from the above timeline.
Please Note

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.


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/2013/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/2013/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:

<table>
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<tr>
<th>Dates for adding courses in the summer:</th>
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<tbody>
<tr>
<td>Last day to add a Distance Studies Course</td>
<td>Friday, May 9, 2014</td>
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<tr>
<td>Last day to add an Intersession Course</td>
<td>Tuesday, May 13, 2014</td>
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<tr>
<td>Last day to add a first term half course Summer Evening</td>
<td>Friday, May 9, 2014</td>
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<tr>
<td>Last day to add a second term half course Summer Evening</td>
<td>Friday, June 20, 2014</td>
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<th>Dates for dropping Courses in the summer:</th>
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<tbody>
<tr>
<td>Last day to drop a Distance Studies Course</td>
<td>Friday, May 30, 2014</td>
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<tr>
<td>Last day to drop an Intersession Course</td>
<td>Thursday, May 22, 2014</td>
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<tr>
<td>Last day to drop a first term half course Summer Evening</td>
<td>Friday, May 16, 2014</td>
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<tr>
<td>Last day to drop a second term half course Summer Evening</td>
<td>Friday, June 27, 2014</td>
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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 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/2013/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.