

Econometrics I  
ECONOMICS 2222A-001/002  
Department of Economics  
Western University

September 2019

**General Information:**

**Instructor:** Daniel Chaves  
**Office:** 4045 SSC  
**Phone:** 519-661-2111 ext. 85207  
**E-mail:** dchaves6@uwo.ca  
**Office hours:** Tu: 11:00am – 1:00pm  
**Classroom meeting time(s) & location:**  
Section 001 – Tu: 9:30-10:30 am; Th: 9:30-11:30 am @ UCC 41  
Section 002 – Tu: 2:30-3:30 pm; Th: 1:30-3:30 pm @ UCC 56  
**Course website:** <https://owl.uwo.ca/portal>  
**Undergraduate inquiries:** 519-661-3507 or SSC Room 4075 or [econugrd@uwo.ca](mailto:econugrd@uwo.ca)

**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: (i) Economics 1021A/B and 1022A/B; **or** (ii) Economics 2001A/B and Calculus 1000A/B (with a mark no less than 60%), Calculus 1500A/B (with a mark no less than 60%) or the former Calculus 1100A/B (with a mark no less than 60%).

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken any anti-requisite courses. 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 Objectives:

This is an introductory course in probability and statistics. The main goal is to teach students how to use statistics and basic economic theory to read and interpret data. This knowledge is paramount to learn how to use math and economics to understand the real world.

## Course Learning Outcomes:

At the end of this course students should be able to: (i) interpret tables, graphs, and statistics used for describing data; (ii) apply probability theory to model random variables; (iii) estimate population parameters using point and interval estimators; (iv) evaluate and describe the properties of an estimator; and (v) test theories about population parameters (determine an appropriate test statistic; implement a formal hypothesis test and interpret the outcomes)

## Textbook(s):

**The main reference** is Newbold, Carson and Thorne “Statistics for Business and Economics” 8<sup>th</sup> edition (hereafter SBE). Students looking for an affordable alternative can use the 7<sup>th</sup> edition instead.

Additional references are:

Weelan “Naked Statistics”

Sandholm and Saraniti “Vital Statistics: Probability and Statistics for Economics and Business”

The additional references are not required. They are just an extra source of material in case students want to look for extra content.

## Grading:

Your grade in this course will be determined by a combination of quizzes, one mid-term, and a final exam. The following table provides the weights attributed to the quizzes and exams. It also provides the tentative schedule for the quizzes and exams.

| Assessment | Date                           | Weight |
|------------|--------------------------------|--------|
| Quiz       | Sep 26, Oct 24, Nov 14, Nov 28 | 30%    |
| Mid-term   | October 10th                   | 30%    |
| Final      | TBD                            | 40%    |

The quizzes are spread throughout the semester and their goal is to make sure that you are keeping up with the material. The quizzes will be of approximately 30 minutes in length and will be held at the end of Thursday's lectures. Furthermore, when computing the grade, **I will only consider the best three scores out of four**. As expected, you should attend every lecture, however, this grade composition will give you some flexibility in case something unexpected happens.

**Note: For the quizzes and mid-term exam, you must attend the section for which you are registered.**

### **Topics Covered and Readings:**

- 1) Introduction: descriptive statistics and probability theory (Chapters 1 – 3, SBE)
- 2) Probability distributions: discrete random variables and probability distributions; continuous random variables and probability distributions, random sampling and sampling distributions (Chapters 4 – 6, SBE)
- 3) Estimation: point estimations and confidence intervals (Chapters 7 – 8, SBE)
- 4) Hypothesis testing: general principles of testing hypotheses; test of hypotheses about population parameters (means, proportions, differences in means and proportions and variances); relation between hypothesis testing and confidence intervals (Chapters 9 – 10, SBE)
- 5) Simple regression: estimation of linear models; least square methods and properties of the estimators; assumptions of the simple regression model and inference (Chapter 11, SBE)

### **Copyright:**

Lectures and course materials, including power point presentations, outlines, and similar materials, are protected by copyright. Students may take notes and make copies of course materials for their own educational purposes. Students may not record lectures, reproduce (or allow others to reproduce), post or distribute lecture notes, wiki material, and other course materials publicly and/or for commercial purposes without written consent.

**Please Note**  
**Department Policies for 2019-2020**

Remember that the University expects all students to take responsibility for their own Academic Programs. Students should also check their registration to ensure they 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://www.uwo.ca/univsec/pdf/academic\\_policies/exam/administration.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/exam/administration.pdf).
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 an official academic transcript, suspension or expulsion.
4. **Plagiarism:** Students must write their essays and assignments in their own words. When taking an idea/passage from another author, it must be acknowledged with quotation marks where appropriate and referenced with footnotes or citations. Plagiarism is an academic offence (see Scholastic Discipline for Undergraduate Students in the Western Calendar at [http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_20](http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20)).

Western University uses software to check for plagiarism and students may be required to electronically submit their work. Those found guilty will be penalized as noted in point 3.

5. It is a Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students must submit assignments in class or to the instructor during office hours.
6. When appealing a mark, students should refer to the Student Academic Appeals section in the current Western Academic Calendar at:  
[http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page\\_14](http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_14)

Please note the relevant deadlines.

The Department will not consider an appeal unless an attempt has been made to settle the matter with the instructor first. Students who remain dissatisfied with the outcome may proceed with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for their appeal. A 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:  

|   |                                     |
|---|-------------------------------------|
| Deadline to <u>add</u> a first term half course:  | <b>Wednesday September 13, 2019</b> |
| Deadline to <u>drop</u> a first term half course: | <b>Tuesday November 12, 2019</b>    |
9. Faculty of Social Science policy states that oversleeping or misreading an exam schedule is NOT grounds for a makeup. This rule applies to midterm and final exams in the Department of Economics.

### **Policy on Tests, Final Exams and on Missed Academic Responsibilities**

Students who proceed to write a test or examination must be prepared to accept the mark. Rewriting tests or examinations, or retroactive reweighting of marks, is **not** permitted. Students must book travel arrangements AFTER final exam dates have been posted; travel is not an acceptable excuse for absence from a final exam.

Students who are temporarily unable to meet academic requirements due to extenuating circumstances can follow Western University procedures to request academic consideration through the following routes:

- a) Submit a Self-Reported Absence form if the conditions for submission are met (e.g., only for exams or assessments worth 30% or less of the course mark; not applicable to final exams; maximum 2 self-reported absences per academic year; see [link](#) for full list of conditions and info).

If the conditions for submission of a Self-Reported Absence form are not met, then:

- b) For medical absences, submit a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner along with a request for academic consideration to Academic Counselling in the student's home Faculty (see [link](#) for full info) ; or
- c) For non-medical absences (e.g., religious or compassionate), submit appropriate documentation to Academic Counselling in the student's home Faculty (see [link](#) for full info).

It is strongly recommended that students notify their instructors as soon as possible. University policy is that students **must** communicate with their instructors no later than **24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero. Students should also set up an appointment to meet with their instructor as soon as possible. If the instructor is not available, send an email message, copying the Undergraduate Coordinator at [econugrd@uwo.ca](mailto:econugrd@uwo.ca).

Note: Academic consideration is not normally intended for long-term, recurring absences, an existing disability, or high levels of stress related to academic performance. In such cases, students should consult their academic counsellor. See [link](#) for full information. In all cases, if the documentation submitted to request academic consideration is not acceptable, students will receive a grade of zero for the missed test, exam, or assignment.

**For full information about Western University’s policies and procedures for student absences and requests for academic consideration, please visit this [link](#).**

### **Policies Regarding Academic Accommodation**

The Faculty of Social Science’s policies regarding academic accommodation is found at [http://counselling.ssc.uwo.ca/procedures/having\\_problems/index.html](http://counselling.ssc.uwo.ca/procedures/having_problems/index.html). “Academic Rights and Responsibilities” are also outlined in the Western Calendar at <http://westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&command=showCategory&SelectedCalendar=Live&ArchiveID=>. 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 the instructor deems a student’s class attendance as unsatisfactory, that student may be prohibited from writing the final examination. If there is intent to make use of this University policy, the student will be notified in writing.

### **Statement on Mental Health and Support Services**

Students under emotional/mental distress should visit [http://uwo.ca/health/mental\\_wellbeing/](http://uwo.ca/health/mental_wellbeing/) for more information and a complete list of resources on how to obtain help.