<div align="center">

University of Waterloo
Department of Economics
Econ 221 – Section 2
Statistics for Economists
Fall 2014
Monday and Wednesday 2:30-3:50, AL 105

</div>

Instructor Information

Instructor: Ryan George
Office: HH 218
Office Phone: 519-888-4567 ext. 33169 (please do not leave voice mails)
Office Hours: Monday and Wednesday 1-2 pm or by appointment
Email: r22georg@uwaterloo.ca

The instructor will only respond to emails that include "Econ 221" in the subject line of the message.

T.A. Information

TBA

Course Description

The course begins by formulating the problem of using sample information to understand the characteristics of an unobserved population. Probability theory is introduced and then forms the basis for estimation and hypothesis testing. Economic problems provide the content for examples throughout the course.

Course Goals and Learning Outcomes

Through lectures, reading and practice in solving problems by hand and with the aid of statistical software students will obtain:
- a basic literacy with regard to statistical techniques and data analysis;
- familiarity with the use of probability theory in modeling random events.

Required Text

- Paul Newbold, William L. Carlson, and Betty M. Thorne, *Statistics for Business and Economics* 8th edition, (Toronto: Pearson Education Inc., 2013).

One copy of the 8th edition is on reserve in the Dana Porter Library.

Recommended Reading

- Hoy, M., Livernois, J., McKenna, C., Rees, R., and Stengos, T., *Mathematics for Economics*, 2nd or 3rd Edition, Sections 16.1-16.3 on Integration.

One copy of the 2nd edition is on reserve for Econ 221 in the Dana Porter Library.

Readings Available on LEARN

- Announcements, assignments and their solutions, midterm solutions.

- Recommended textbook problems with solutions.

Course Requirements and Assessment

Assessment	Date of Evaluation (if known)	Weighting (max of schemes #1 and #2)	
		Scheme #1	Scheme #2
Assignments (4 @ 5% each)	TBA	20%	20%
Midterm Examination	Wednesday, October 15th	35%	20%
Final Examination	Exam Period (scheduled by Registrar's Office)	45%	60%
Total		100%	100%

Assignments

There will be four (4) assignments over the course of the term. Each will count for 5% of the final grade. The assignments will be posted on LEARN, and due in class. Two assignments will be due prior to the midterm and two will be due after the midterm. Due dates to be announced. Unless an arrangement has been made with the instructor, *no late assignments will be accepted*.

Several assignments will require students to download data and then use the statistical software program *Stata*. Stata is available on the computers in the following Arts computing labs: PAS 1237, 1080 and 1098.

If you plan on continuing in economics you may find it worthwhile to buy a small version of it through the course grad plan. The information is available on the course Learn page.

Midterm Examination

The midterm exam will be **held in class on Wednesday, October 15th .** It will test students' proficiency with the material covered in the lectures, assignments and practice problems.

Final Examination

The final exam is comprehensive. The date will be set by the Registrar's Office.

Course Outline (Tentative)

Week	Date	Topic	Readings Due
1	Sept 8 and 10	• Introduction to Course; Data presentation and description	Ch.1 Ch.2
2	Sept 15 and 17	• Probability Theory	Ch.3
3	Sept 22 and 24	• Discrete Random Variables and Probability Distributions	Ch.4
4	Sept 29 and Oct 1	• Random Variables	Ch.4-5
5	Oct 6 and 8	• Continuous Random Variables and Probability Distributions	Ch.5 Hoy Ch.16-1-3
6	Oct 13 Oct 15	• No Class - Thanksgiving Holiday • **Midterm during lecture Wed Oct. 15**	
7	Oct 20 and 22	• Sampling Distributions	Ch.6
8	Oct 27 and 29	• Estimation	Ch.7.1-5
9	Nov 3 and 5	• Hypothesis Testing	Ch.9
10	Nov 10 and 12	• Hypothesis Testing	Ch.9
11	Nov 17 and 19	• ANOVA • Simple Regression	Ch.15.1-2 Ch.11
12	Nov 24 and 26	• Simple Regression	Ch.11
13	Dec 1	• Course Review and Exam Details	

Missed Work and Accommodation Regarding Assessment

If a student is unable to take a midterm exam for documented reasons, a make-up exam will be offered at an arranged time. ***Please note that students who decide to take an exam cannot be given accommodation after the fact due to illness or personal complicating factors that may have affected their performance.*** If you are not well on the day of an exam it is advisable that you not take the exam and obtain valid documentation of the circumstances of this decision.

Electronic Device Policy

To avoid disruptions to the learning environment handheld devices must be turned off during the lecture and laptops must be used strictly for lecture-related purposes.   If a student's use of a laptop becomes a distraction for adjacent students that student will be asked to discontinue its use.

Attendance Policy

Lectures are an important component of the learning process and should be attended regularly.

Faculty of Arts Statements

Cross-listed course:

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

Academic Integrity:

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4.

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals.

Other sources of information for students:

Academic Integrity website (Arts) Academic Integrity Office (uWaterloo)

Accommodation for Students with Disabilities:

Note for students with disabilities: The AccessAbility Services office, located in Needles Hall Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.