# York University Faculty of Liberal Arts & Professional Studies Department of Economics

# AP/ECON 2500 3.0 M Introductory Statistics for Economists I Winter 2020 Course Outline

#### **Course Instructor Contact:**

Instructor: David K. Lee, Ph. D. Office: DB 2043 Email: dklee@yorku.ca Phone: 416-736-2100 Ext. Course Consultation Hours: W2:30-4:00, R5:30-6:30 Course Web Site: Moodle

#### Calendar Course Description / Prerequisite / Co-Requisite:

Provides an introduction to statistical techniques. Topics covered include descriptive statistics and frequency distributions, measures of location and dispersion, random variables, sampling distributions, probability theory and mathematical expectations, the normal distribution, correlation, and the design and interpretation of hypothesis tests.

Prerequisites: Grade 12U Advanced Functions or equivalent.

Course credit exclusions: AP/ADMS 2320 3.00, AP/POLS 3300 6.00, AP/SOCI 3030 6.00, ES/ENVS 2009 6.00, GL/MATH/MODR 1610 3.00, GL/POLS/SOCI 2610 3.00, GL/PSYC 2530 3.00, HH/KINE 2050 3.00, HH/PSYC 2020 6.00, HH/PSYC 2021 3.00, SC/BIOL 2060 3.00, SC/GEOG 2420 3.00, SC/MATH 2500 3.00, SC/MATH 2565 3.00.

Note 1: Acceptable course substitutes are available in the Calendar.

Note 2: students who have taken SC/MATH 1131 3.00 may not take AP/ECON 2500 3.00. PRIOR TO FALL 2009: Course credit exclusions: AK/ADMS 2320 3.00, SC/BIOL 2060 3.00, AK/ECON 3470 3.00, AS/ECON 2500 3.00, ES/ENVS 2010 6.00, AS/SC/GEOG 2420 3.00, AS/KINE 2050 3.00 (Prior to Fall/Winter 2007-08), HH/KINE 2050 3.00, AK/AS/SC/MATH 2560 3.00, AK/AS/SC/MATH 2565 3.00, AS/POLS 3300 6.00, AK/AS/SC/PSYC 2020 6.00 (Prior to Fall/Winter 2007-08), HH/PSYC 2020 6.00, AK/AS/SC/PSYC 2021 3.00 (Prior to Fall/Winter 2007-08), HH/PSYC 2021 3.00, AS/SOCI 3030 6.00.

# Lecture Time and Location

Lecture: T/R 4:00pm-5:30pm RS137

**Teaching Assistants:** TBA

#### **Organization of the Course**

This course involves formal lectures presented by the course instructor. The classroom technology will be used extensively, such as PowerPoint, or MS word format presentation. There will be extensive usages of the course web site. Reading assignments, practice problems, problem solving, etc., for each lecture session, tutorial sessions or TA availability, etc., will be announced on the course web site.

### **Required Course Text / Readings**

Moore, David S., McCabe, George P and Bruce Craig, *<u>Introduction to the Practice of Statistics</u>*, 9th Edition, W.H. Freeman and Company, 2017.

#### Evaluation \*

The grade for this course is composed of the mark received for each of the following components:

Type of Assessment	Percent/Weight	Date
Midterm Test I (75 minutes)	Higher mark 30%	
Midterm Test II (75 minutes)	Lower mark 10%	
Final Exam (180 minutes)	60	
TOTAL	100%	

The following conversions will be used in converting percentage grades to letter grades: 90-100 (A+), 80-89 (A), 75-79 (B+), 70-74 (B), 65-69 (C+), 60-64 (C), 55-59 (D+), 50-54 (D), 40-49 (E), 0-39 (F).

**Please note that** I strongly believe that the best learning experiences occur when there are healthy attendance and discussions in the classroom. Therefore, I have a policy to give some bonus points based on **class attendance and participation (usually no more than 5%)** in order to encourage attendance and classroom discussion. Feel free to ask any questions or simply make comments on relevant topics at any time.

**Problem sets** will be posted in the course web site throughout the semester. Some of them may be solved in class. These problems will not be graded, however, I encourage you to work through them. It will help you understanding the course material and consequently, increase the probability that you will do well in the course. Practice may not always make perfect, but it's a good start.

# **Deferred Exam Policy:**

There are no makeups for missed in-class tests. Anyone missing any one of the two midterm tests will automatically have their final exam reweighted to be worth 80% and the final grade will be calculated

based on a 20% midterm and 80% final. If a student missed both midterms, the final grade will be calculated based on 0 % from midterm and 80% from the final.

There will be generally no deferments offered for missed final exams except under very unusual circumstances. Anyone wishing to write a deferred final exam generally will be required to formally petition for such. Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Session	Торіс	<b>Reading and Activity</b>	
<b>01</b> Jan 7, 9	Looking at Data - Distributions	Ch 1	
<b>02</b> Jan 14, 16	Looking at Data - Relationships	Ch 2	
<b>03</b> Jan 21, 23	Producing Data	Ch 3	
<b>04</b> Jan 28, 30			
<b>05a</b> Feb 4	Midterm Exam I: (Weeks 1-4a, Chapters 1-3, Covered)		
	(Drop Deadline: Mar 13)		
<b>05b</b> Feb 6	Probability	Ch 4	
<b>06</b> Feb 11, 13	Sampling Distributions	Ch 5	
	Introduction to Inference	Ch 6	
<b>07</b> Feb 25, 27			
Reading Week Feb 15-Feb 21			
<b>08</b> Mar 3, 5	Inference for Distributions	Ch 7	
<b>09</b> Mar 10, 12	Inferences for Proportions	Ch 8,	
<b>10a</b> Mar 17	Midterm Exam II: (Weeks 5b-9, Chapters 4-8, Covered)		
<b>10b</b> Mar 19	Analysis of Two-Way Tables	Ch 9	
	One-Way Analysis of Variance	Ch 12	
<b>11</b> Mar 24, 26			
<b>12a</b> Mar 31			
<b>12b</b> Apr 2	Review		
Final Exam Apr 7 – Apr 25			

#### **Topics to be covered:**

#### New Information and Changes:

The schedule is subject to change –sometimes there are unexpected absences or we bog down on an issue. Check your class notes, or contact me for up-dated work schedules.

It may be very possible to make some adjustments of lectures and/or exams schedules. Students may also have handouts for the topics discussed in the class. It is students' responsibility to be aware of any policy (or schedule change), or to collect handouts from classes. If you miss classes, contact the instructor before or immediate after, and check if there is any policy change or handout distributed.

#### There is no excuse for not knowing course policies or schedule changes, or for not having handouts.

### **Important Course Information for Students:**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage; <u>http://www.yorku.ca/secretariat/policies/index-policies.html/</u>

> York's Academic Honesty Policy and Procedures/Academic Integrity Website

<u>Academic Honesty and Integrity</u>: Conduct that violates the ethical or legal standards of the University community or of one's program or specialization is subject to severe penalties. Students are responsible for understanding the nature and consequences of these offences, as contained in the Senate Policy on Academic Honesty, found on the York University Senate WEB page: <u>http://www.yorku.ca/secretariat/policies/document.php?document=69</u>

- Ethics Review Process for research involving human participants <u>http://www.yorku.ca/secretariat/policies/document.php?document=94</u>
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities <u>http://www.yorku.ca/secretariat/policies/document.php?document=68</u>
- Student Conduct Standards <u>http://www.yorku.ca/oscr/standards.html</u>
- Religious Observance Accommodation <u>https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs</u>