

**YORK UNIVERSITY**  
**School of Administrative Studies**  
 AP/ADMS 2320 3.0 Business Statistics  
 Winter 2022 – Section Z

\***VIRTUAL Day: Tuesday**      **Location: Online**  
**Instructor: Irvin Pestano**    **Email: [ipestano@yorku.ca](mailto:ipestano@yorku.ca)**

**Office hours: See virtual office hours on Page 4**

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**Required Textbook:**

KELLER , G., STATISTICS FOR MANAGEMENT AND ECONOMICS, 11<sup>th</sup> ed., Cengage Learning Pub (c) 2018). **Earlier editions are NOT SUPPORTED.**

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*\* Virtual day is for your planning purposes only. You can view the digital (Audio recorded) lectures at ANY time during the week as your schedule allows. **Online Course Requirement: This course requires stable internet connection (no exceptions) and may require the use of a webcam. This course is delivered asynchronously.***

Lecture	Date	Topics	Readings
1	Jan 11	Introduction Graphical Descriptive Techniques I Graphical Descriptive Techniques II	Ch 1 Ch 2 Ch 3
2	Jan 18	Numeric Descriptive Measures	Ch 4
3	Jan 25	Probability	Ch 6
4	Feb 1	Random Variables & Discrete Probability Distributions	Ch 7
5	Feb 8	Continuous Probability Distributions and Data Collection	Ch 8 Ch 5
<b>Sunday February 13th</b>		<b>TERM TEST 1 (1.5 hours) – 6pm to 8pm Coverage: Chapters 1, 2, 3, 4, 6</b>	
6	Feb 15	Sampling Distributions and Introduction to Estimation	Ch 9 Ch 10
	Feb 22	NO CLASS – Reading Week	
7	March 1	Introduction to Hypothesis Testing	Ch 11
8	March 8	Inference About a Population	Ch 12
<b>Sunday March 13th</b>		<b>TERM TEST 2 (1.5 hours) – 6pm to 8pm Coverage: Chapters 5, 7, 8, 9, 10</b>	
9	March 15	Inference About Comparing Two Populations	Ch 13
10	March 22	ANOVA Chi-Squared Tests	Ch 14 (parts) Ch 15 (parts)
11	March 29	Simple Linear Regression (computer method only) Multiple Regression	Ch 16 (parts) Ch 17 (parts)
		<b>Common Final Examination (Date and time to be announced on registrar/university website)</b>	<b>Covers: Chapters 10, 11, 12, 13, 14, 15, 16 and 17</b>

**MARKING SCHEME:**

Term Test 1	30%
Term Test 2	30%
Final Exam	40%
Total	100%

**CHAPTER COVERAGE:**

<b>AP/ADMS 2320</b>	<b>COURSE CONTENT</b>
Chapters 1 – 3	No omissions
Chapter 4	Omit: Least Squares Method: p. 114 (Cover in Ch 16) Coefficient of determination: p.120 (Cover in Ch 16) 4.5 Applications in Finance: Market Model: p. 125
Chapter 5	No omissions
Chapter 6	No omissions
Chapter 7	Omit: 7.2 Bivariate Distributions: p.209 7.3 Applications in Finance: p.218 7.5 Poisson Distribution: p. 232
Chapter 8	Omit: 8.3 Exponential Distribution: p. 268 8.4 Other Continuous Distributions: p 273
Chapter 9	Omit: 9.2a (Optional) Normal Approximation to the Binomial 9.2b Omitting the Correction Factor for Continuity
Chapter 10	Omit: 10.2c (Optional) Estimating the Population Mean Using the Sample Median
Chapter 11	Omit: Probability of a Type II Error Calculation – Concept and theory still to be covered
Chapter 12	Omit: 12.3g Wilson Estimators: p. 406 12.4 Applications in Marketing: p. 412
Chapter 13	No omissions
Chapter 14	Responsible for Section 14.1 only: p. 518-525
Chapter 15	Responsible for Section 15.1 - 15.3 only.
Chapter 16	Responsible for computer method ONLY  Omit: 16.6 Regression Diagnostics I: p. 670
Chapter 17	Omit 17.3 and 17.4 - Regression Diagnostics II and III

## Course Description:

An integrated approach to analyzing business problems from various functional areas. Practical business problems are analyzed using quantitative techniques including probability, statistical inference, estimation, and regression as well as non-parametric approaches. Prerequisites: AP/ADMS 1000 3.00; one 12U mathematics course or equivalent. Course credit exclusion: AP/ECON 2500 3.00. PRIOR TO FALL 2009: Prerequisites: AK/ADMS 1000 3.00; one 12U mathematics course or equivalent. Course credit exclusions: AK/ADMS 2320 3.00, AK/ADMS 3320 3.00 (prior to Summer 2005), AK/ECON 3470 3.00.

## General Policy

1. **WARNING: Distribution or uploading of course content is STRICTLY PROHIBITIVE. All material is copyright protected.**
2. **You are NOT allowed to take pictures or record (audio or video) any content of the lecture.**
3. Please ensure you read all documentation on the course website.
4. Please note that this is now a remote teaching online course. The entire course, including the lectures, participation/discussion, and test/exam-taking, will take place on the course website/online.
  - a. the recordings should be used for educational purposes only and as a means for enhancing accessibility.
  - b. students **do not** have permission to duplicate, copy and/or distribute the recordings outside of the class (these acts can violate not only copyright laws but also FIPPA).
  - c. all recordings will be deleted after the end of classes.
5. It will be your responsibility to regularly check online posts and your email.
6. This course **might** require the use of online proctoring for examinations. The instructor may use an online proctoring service to deliver the exam(s), which would be administered through the Learning Management System (e.g., Moodle, Canvas, etc.). Students are required to have access to minimum technology requirements to complete examinations. If an online proctoring service is used, students will need to become familiar with it at least five days before exam(s). For technology requirements, Frequently Asked Questions (FAQs) and details about the online proctoring service will be made available if used. Students are required to share any IT accommodation needs with the instructor as soon as they are able.
7. Several platforms will be used in this course (e.g., eClass, Canvas, Zoom, etc.) through which students will interact with the course materials, the course director / TA, as well as with one another. Please review the syllabus to determine how the class meets (in whole or in part), and how office hours and presentations will be conducted.

Students shall note the following:

- Zoom is hosted on servers in the U.S. This includes recordings done through Zoom.
- If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

## **Term Tests and Final Exam Policies**

1. The two Term Tests and the Final Examination will be held **online** on eClass at the same time for all students unless the University commences operations and can hold exams on campus. In the event the University commences operations, the exams will be shifted to on-campus exams.
2. Information concerning the Term Tests and Final Exams will be posted on the course website.
3. The two Term Tests and the Final Examination will be all open book exams.
4. The two Term Tests and the Final Examination are to be finished by students individually. Students may not receive assistance or coaching from other individuals while writing any test or the exam. Students found engaging in these practices will be subject to an academic dishonesty case.
5. Both Term Tests and the Final Examination may consist of multiple-choice questions and/or worded questions.
6. For the Tests and Final Exam, you will need to upload your solutions on the eClass testing site by scanning or taking a photo of your work as required for each question. (Note: When the allotted time is over, eClass will automatically submit whatever work/files you have uploaded. You do not have to send an email to your professor asking to check whether your work/files have been uploaded. It is your responsibility to ensure they are uploaded properly within the time provided. Such email inquiries will not be answered). **eClass will not allow uploads in the last minute of the exam. All files must be uploaded before the last minute.**
7. If a Term Test is missed, the weight of one, and only one, missed Term Test (30%) will be **automatically (no documents such as doctor notes needed)** transferred to the Final Examination. If both Term Tests are missed, the Final Examination will only weigh 70%.
8. The Final Examination will be **comprehensive** if **any one** of the two Term Tests is missed. That is, if a student misses one Term Test, he/she will be writing a Final Examination that includes material from the entire semester.
9. **There are no alternative exam dates for Term Tests.**
10. If students miss the Final Examination and must defer the exam, the deferred exam will be a cumulative examination.
11. The Final Examination grades will not be posted by the instructor. Instead, students should check their overall grades from York official website under their personal accounts some time after the Final Examination.
12. Online tests will be marked online, and the results will be posted on Moodle or another grade site. If you need to get markers' feedback, you will need to put a request by emailing your professor within five days from the date the marks are posted. Any query after five days will not be entertained.
13. After getting markers' feedback, if you are still not satisfied then you can request your professor to re-appraise the test. However, note that the whole test, not just the part under question, will be re-assessed. Three outcomes are possible, your mark might stay the same; increase; or decrease.

## **Digital Tutorials:**

**More information will be posted on the course website. Pre-recorded tutorial sessions will be made available.**

## **Technical requirements for taking the course:**

- Student who are enrolled in this course must have access to a laptop or desktop computer with a camera and microphone and/or a smart device with these features.
- **Students must also have a stable Internet connection, or they should not be taking the course.** To determine Internet connection and speed, there are many tools available online or from your ISP.
- During test/exam it may be asked to turn on camera for confirmation of identity.

## Virtual office hours:

Please send your questions via email. All questions will be answered within 24 to 48 hours' time with the exception of weekends. A one-on-one Zoom meeting may be set up depending on the nature of the question. Please note that emails from public email providers such as Gmail and Hotmail might be screened. It is best to use your York email account for this course.

**There are no live/scheduled Zoom classes for this course. All material will be made available so you can view them at the most convenient time for your schedule.**

## RELEVANT UNIVERSITY/LA&PS/SCHOOL REGULATIONS

### Applicable to all ADMS and DEMS courses

there be any updates to these regulations, you can review the most recent Faculty of Liberal Arts and Professional Studies regulations, which are used by SAS (the School of Administrative Studies) at:

<https://www.yorku.ca/laps/sas/academic-resources/common-course-policies/>

**Deferred Final Exams:** Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at <http://myacademicrecord.students.yorku.ca/deferred-standing>

DSA Form: [http://www.registrar.yorku.ca/pdf/deferred\\_standing\\_agreement.pdf](http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf)

In order to apply for deferred standing, students must register at:

<http://sas-app.laps.yorku.ca>

Followed by handing in a completed original Deferred Standing Agreement (DSA) form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the above-mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

**IMPORTANT NOTE: Any request for deferred standing on medical grounds must comply with University regulations. At the time of writing of this outline, the requirement for APS forms had been suspended due to COVID-19. If it resumes, the University will inform you of such resumption, and you would include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.**

Students with approved DSA will be able to write their deferred examination during the School's deferred examination period. **Deferred exams might take place during the regular exams period or in subsequent weeks depending on the course;** precise dates are known when the Office of the Registrar publishes the final exam schedule of the term. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not.

**Academic Honesty/Integrity:** The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to

maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated, and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at: <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

**Grading Scheme and Feedback Policy:** The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for ‘full year’ courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

*Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible.* For more information on the Grading Scheme and Feedback Policy, please visit: <http://www.yorku.ca/univsec/policies/document.php?document=86>

**In-Class Tests and Exams - the 20% Rule:** For all Undergraduate courses, except those which meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please visit: <http://secretariat-policies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>

**Reappraisals:** Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered, or confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: <http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy>

**Accommodation Procedures:** LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: <http://ds.info.yorku.ca/academic-support-accomodations/>

**Religious Accommodation:** York University is committed to respecting the religious beliefs and practices of all members of the community and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit: <https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

## **Academic Accommodation for Students with Disabilities (Senate Policy)**

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Student Accessibility Services (formerly known as Counselling and Disability Services) website at <https://accessibility.students.yorku.ca>

York's disabilities offices and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit <http://www.yorku.ca/altexams/>

Please alert the Course Director as soon as possible should you require special accommodations.