

YORK UNIVERSITY
Faculty of Liberal Arts and Professional Studies
School of Administrative Studies
ADMS 3511 - Course Outline

Business Analytics: Introduction, Methods and Practical Approaches
Winter 2023 - Thursdays, 04:00 PM to 07:00 PM

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Location: RS205

First class: Thursday, January 12

Last class: Thursday, April 6

Course Director: Mohsen Javdan

Email: mjavdan@yorku.ca

Office Hours: By appointment.

Send email from inside the YorkU.ca domain only. Email from outside the YorkU.ca domain might be blocked or sent to Junk folder.

ADDITIONAL REQUIREMENTS:

Prerequisite: AP/ADMS 2511 3.00 and AP/ADMS 2320 3.00.

Students are personally responsible to ensure that they have the required prerequisites as stated in the course outline or in the course calendar. Students who do not have the prerequisites are at risk of being dropped from the course at any time during the course. The department will not be responsible for refunds resulting from students being dropped from a course due to a lack of the appropriate prerequisites.

COURSE DESCRIPTION:

This course is an introduction to business analytics. Business analytics use information technology applications to improve decision-making in organizations by probing large data sets, gaining knowledge and communicating conclusions drawn from data. The course explains and demonstrates through hands-on practice how business analytics applications are used in organizations to support decision-making.

LEARNING OUTCOMES:

By the end of the course, students will be able to:

- Discuss business analytics tools and how businesses use them.
- Discuss and distinguish the three main types of business analytics: descriptive, predictive, and prescriptive analytics.
- Perform some basic data mining and analysis.
- Generate business information reports, design dashboards and other data visualizations.
- Write managerial reports based on their various data analyses findings.

REQUIRED COURSE TEXT / READINGS:

Camm, J.D., Cochran, J. J., Fry, M. J., and Ohlmann, J. W. (2021). Business Analytics. 4th edition. Cengage Learning

SOFTWARE APPLICATIONS USED IN THE COURSE

Microsoft Excel

Tableau

IBM SPSS (to be Accessed through YorkU MyApps)

KNIME

WINTER 2023 TERM DROP DATES

Last date to add a course **without permission** of instructor: January 22, 2023

Last date to add a course **with permission** of instructor: February 06, 2023

Last date to drop a course without receiving a grade: March 17, 2023

If you withdraw between March 18 and April 11, the course remains on your transcript without a grade and is notated as "W".

FINAL GRADE COMPOSITION

Assignments (6 x 10%)	60%	Individual
Class Participation	5%	Individual
Final exam	35%	Individual
TOTAL	100%	-

ECLASS WEBSITE

The eClass (formerly known as Moodle) website for the course is used to distribute course materials. Be sure to check it regularly for announcements and course content.

ASSIGNMENTS, OUTCOMES, POLICIES AND PRACTICES:

Academic honesty and integrity

Here at York University, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing York University's SPARK Academic Integrity module before completing your first assignment. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work or the representation of another's ideas as your own, for example). All instances of academic dishonesty in this course will be reported to the appropriate university authorities and can be punishable according to the Senate Policy on Academic Honesty.

Turnitin

To promote academic integrity in this course, students will be normally required to submit their written assignments to Turnitin (via the course Moodle site) for a review of textual similarity and the detection of possible plagiarism. In so doing, students will allow their material to be included as source documents in the Turnitin.com reference

database, where they will be used only for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin service are described on the Turnitin.com website. In this course, the take home portions of the examinations will be submitted via a Turnitin link on our course website.

About the Grading Scheme

Refer to course web site and details of assignments posted on the web site.

Grades submitted by an instructor are subject to review by the teaching unit in which the course is offered and by the Faculty Council or Faculty Committee on Academic Policy and Planning. Final course grades may be adjusted to conform to program or Faculty grades distribution profiles. Normally, grades appear on grade reports and transcripts as soon as they are submitted to the Registrar's Office.

<https://calendars.students.yorku.ca/2022-2023/grades-and-grading-schemes>

Assignments

The details about the assignments and the requirements for submissions will be posted to eClass.

There is a penalty of 20% for every business day for any assignment that is late.

Class Participation

Students are encouraged to engage actively in class discussions related to the material being presented. Participation marks will be based on both the quantity and quality of your in-class contributions.

ORGANIZATION OF THE COURSE

Session Description	Readings and Assignments
Session 1 - January 12 Introduction to the course and business analytics Descriptive statistics	Chapters 1&2
Session 2 - January 19 Data visualization	Chapter 3 <i>Assignment 1 Released</i>
Session 3 - January 26 Data visualization in Tableau	Chapter 3 - Appendix <i>Assignment 2 Released</i> <i>Assignment 1 is due at the start of class (January 26 at 04:00 PM)</i>

Session 4 - February 02 Spreadsheet models	Chapter 10 <i>Assignment 3 Released</i> <i>Assignment 2 is due at the start of class (Feb 02 at 04:00 PM)</i>
Session 5 - February 09 Probability: an introduction to modeling uncertainty	Chapter 4 <i>Assignment 3 is due at the start of class (Feb 09 at 04:00 PM)</i>
Session 6 - February 16 Statistical Inference	Chapter 6
Reading week: February 18 to 24	No classes
Session 7 - March 02 Linear Regression	Chapter 7 <i>Assignment 4 Released</i>
Session 8 - March 09 Time Series Analysis and Forecasting	Chapter 8 <i>Assignment 4 is due at the start of class (March 09 at 04:00 PM)</i>
Session 9 - March 16 Descriptive data mining	Chapter 5 <i>Assignment 5 Released</i>
Session 10 - March 23 Predictive data mining	Chapter 9 <i>Assignment 6 Released</i> <i>Assignment 5 is due at the start of class (March 23 at 04:00 PM)</i>
Session 11 - March 30 Predictive data mining (Cont.)	Chapter 9 <i>Assignment 6 is due at the start of class (March 30 at 4:00 PM)</i>
Session 12 - April 06 Monte Carlo Simulation	Chapter 11
Session 13 - Final Exam During regular examination schedule, April 12 to April 27	Covering sessions 1 to 12

RELEVANT UNIVERSITY REGULATIONS

Should 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://sas.laps.yorku.ca/students/school-policies/>

Deferred 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 <https://myacademicrecord.students.yorku.ca/deferred-standing>

Any request for deferred standing on medical grounds must **comply with university regulations. As of the writing of this outline the requirement for APS forms had been suspended. 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.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

In order to apply for deferred standing (**even without a DSA**), students must register at <http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf>

followed by handing in a completed 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).

Students **who submit a request in compliance with university regulation** or with approved DSA will be able to write their deferred examination during the school's deferred examination period. 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. Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

School of Administrative Studies deferred exams for the Winter 2023 term will be scheduled with the regularly scheduled final examinations of the Summer 2023 term.

Academic Honesty: 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: <https://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

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-isacademic-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:

<https://secretariat-policies.info.yorku.ca/policies/grading-scheme-and-feedback-policy/>

Tests and Exams - the 20% Rule: For all Undergraduate courses, except those which regularly 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-classesof-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 Counselling and Disability Services website at <https://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilitiesguidelines-procedures-and-definitions/>

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.

Effective date: January 25, 2023.