

YORK UNIVERSITY
Faculty of Liberal Arts and Professional Studies
School of Administrative Studies

**Business Analytics:
Introduction, Methods and Practical Approaches**

**ADMS 3511, Winter 2026
Course Outline**

COURSE INFORMATION

Course Instructor: Dr. Mohsen Javdan

Email: mjavdan@yorku.ca

Course Days & Time: Thursdays 04:00 PM to 06:50 PM

Class Location: CLH J (Curtis Lecture Hall - Room 105)

First class: Thursday, January 08

Last class: Thursday, April 02

Send email from inside the YorkU.ca domain only. Email from outside the YorkU.ca domain may be blocked. Always close your email correspondence with your name and student number.

LAND ACKNOWLEDGEMENT

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region ([LA&PS Land Acknowledgement](#)).

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. (2024). Business Analytics. 5th edition. Cengage Learning

SOFTWARE APPLICATIONS USED IN THE COURSE

Microsoft Excel

- Microsoft Office 365 is available to all YorkU students.

Power BI

- Desktop version just for Windows users and Web version for both macOS and Windows users – License is available for YorkU students

KNIME (Version 5.9 - Standard)

- Free software is available for both Windows and macOS users

WINTER 2026 TERM DROP DATES

Last date to add a course **without permission** of instructor: **January 15, 2026**

Last date to add a course **with permission** of instructor: **January 26, 2026**

Last date to drop a course **without receiving a grade**: **March 9, 2026**

If you withdraw between March 10 and the end of classes (April 6), the course remains on your transcript without a grade and is notated as “W”.

FINAL GRADE COMPOSITION

Evaluation	Detail	Weight	Topic
Assignments (6 x 10%)	Assignment 1	10%	Data Preparation and Visualization with Excel - Dataset: Marketing - Skills: Data wrangling, Formulas, Charts, PivotTable, & Pivot Chart
	Assignment 2	10%	Data Visualization with Power BI - Data set: HR - Skills: Clustered Column/ Bar Chart, Map Visualization, Treemap, & Interactive Dashboard
	Assignment 3	10%	Spreadsheet modeling in Excel - Data set: Finance - Skills: Modeling & What-if analysis
	Assignment 4	10%	Regression Analysis with KNIME - Data set: Accounting - Skills: Regression analysis, Model recommendation
	Assignment 5	10%	Cluster Analysis with KNIME - Data set: Management - Skills: K-means and Hierarchical clustering
	Assignment 6	10%	Classification with KNIME - Data set: Health - Skills: Classification, Tree model, Logistic regression model, KNN
Class Participation	Weekly Quizzes & Class Discussions	10%	- Kahoot, Mentimeter, eClass quizzes (The best 10 out of 12 will be counted) - Engagement in class discussions will be considered as bonus mark for the participation grade.
Final Exam	MCQ & Excel & Short Answers	30%	All covered topics
TOTAL		100%	-

Assignments

The details about the assignments and the requirements for submissions will be posted to eClass. There is a penalty of 20% every business day for any assignment that is late. Partial penalties will be applied proportionally based on the number of hours overdue.

Class Participation

Kahoot, Mentimeter, and eClass quizzes will be used to calculate participation marks. Students are expected to actively engage in hands-on activities and class discussions related to the material being presented. Participation marks will be based on both the quantity and quality of your in-class contributions.

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.

Course Policy on Student Use of Generative Artificial Intelligence (AI)

Students may only use generative artificial intelligence (AI) tools in this course so long as the following two conditions are met:

- Specific generative AI tools are used in accordance with the written guidelines provided for each assessment or activity, and
- The use of generative AI is documented and cited following citation instructions given in the [APA](#).

Use of generative AI outside these two conditions will constitute academic dishonesty under York University's [Senate Policy on Academic Honesty](#). As a student in this course, it is your responsibility to understand when and how generative AI tools can be used to complete your assessments and activities. If you do not know whether an online resource or tool can be used in this course, please contact your instructor for guidance.

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>

ORGANIZATION OF THE COURSE

Session Description	Readings and Assignments
Session 1 - January 08 Introduction to the course and business analytics Descriptive Statistics	Chapters 1&2
Session 2 - January 15 Data Preparation & Visualization	Chapters 3&4 <i>Assignment 1 Released</i>
Session 3 - January 22 Data Visualization	Chapter 3 - Appendix <i>Assignment 2 Released</i> <i>Assignment 1 is due at the start of class (Jan. 22 at 04:00 PM)</i>
Session 4 - January 29 Spreadsheet Modeling	Chapter 12 <i>Assignment 3 Released</i> <i>Assignment 2 is due at the start of class (Jan. 29 at 04:00 PM)</i>
Session 5 - February 05 Probability: an introduction to modeling uncertainty	Chapter 5
Session 6 - February 12 Statistical Inference	Chapter 7

	<i>Assignment 3 is due at the start of class (Feb. 12 at 04:00 PM)</i>
Reading week: February 14 to 20	No classes
Session 7 - February 26 Linear Regression	Chapter 8 <i>Assignment 4 Released</i>
Session 8 - March 05 Time Series Analysis and Forecasting	Chapter 9
Session 9 - March 12 Descriptive Data Mining	Chapter 6 <i>Assignment 5 Released</i> <i>Assignment 4 is due at the start of class (Mar. 12 at 04:00 PM)</i>
Session 10 - March 19 Predictive Data Mining: Regression	Chapter 10
Session 11 - March 26 Predictive Data Mining: Classification	Chapter 11 <i>Assignment 6 Released</i> <i>Assignment 5 is due at the start of class (Mar. 26 at 04:00 PM)</i>
Session 12 - April 02 Monte Carlo Simulation	Chapter 13 <i>Assignment 6 is due at the start of class (Apr. 02 at 4:00 PM)</i>
Session 13 - Final Exam During regular examination schedule, April 08 to April 24	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://www.yorku.ca/laps/sas/academic-resources/deferred-exam-requests/>

Any request for Deferred Standing Agreement (DSA) on medical grounds must comply with university regulations. As of the writing of this outline the requirement for an Attending

Physician's Statement (APS) form had been suspended. If it resumes, the University will inform you of such resumption.

In order to apply for deferred standing, BCom students must register through the School's website at: <https://www.yorku.ca/laps/sas/academic-resources/deferred-exam-requests/>

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 adding 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 regulations** 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.

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-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:

<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-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-accommodations/>

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 accommodation 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 been 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-disabilities-guidelines-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 accommodation.

Effective date: December 21, 2025.