



BUSI 3040R: DATA ANALYTICS AND INFORMATION SYSTEMS FOR ACCOUNTING

Summer 2026

Instructor	Naomi Fernando, CPA (she/her/hers)
Email Address	naomifernando@cunet.carleton.ca
Modality	Online
Office Hours	If you have any questions, feel free to send me an email. We can arrange a time to meet, either in person or via Microsoft Teams, whichever works best for you.
Office Location	Nicol 7036

Pre-Requisites & Preclusions:

Prerequisite(s): 1. BUSI 1401 (or BUSI 2400), and BUSI 3017 or BUSI 3007 with a grade of C- or higher in each. or 2. Enrolment in the Post-Baccalaureate Diploma in Accounting, and BUSI 3017 or BUSI 3007 with a grade of C- or higher in either.

<https://calendar.carleton.ca/undergrad/courses/BUSI/>

Course Description/Instructor's Statement

Carleton Calendar Description

Data analysis in accounting, working with and making sense of big data using various data analysis tools. Specific topics include: data collection, cleaning, analyzing, visualization, and decision making in different areas of accounting.

Instructor's Course Description:

This course will focus on the application of data analysis in accounting. Students will learn theoretical and practical aspects of working with and making sense of big data. They will understand how data can provide insight into different accounting situations. Students will also learn about the application of data analytics to audit, financial, managerial accounting and tax.

Course Learning Objectives:

1. Recognize what data analytics is and how it is related to accounting information systems (AIS).
 2. Assess the risks related to the use of AIS and identify the appropriate controls using different frameworks.
 3. Use tools to collect, clean and analyze data.
 4. Interpret results from data analysis to make quality decisions.
 5. Present and communicate financial and non-financial information using data visualizations.
- Apply data analytics to auditing, financial accounting, management accounting and tax.

Required/Optional Materials & Prices

1. Textbook:

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Available at: www.wileyplus.com

- E-Book Rental (150-day rental) for \$62.00
- E-Book for \$146.95

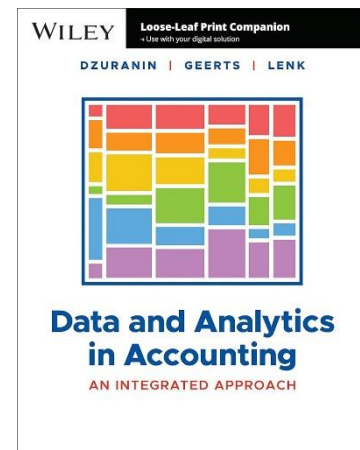
2. Software:

- Microsoft Excel
- Power BI
- Tableau (*optional*)
- Alteryx (*optional*)

Instructions for obtaining each of the above software through your school account will be provided on Brightspace.

3. Course Website (required): www.carleton.ca/brightspace

- Weekly PowerPoint files (Please come to class prepared with either a hard copy, or soft copy accessible on a reasonable device (not your phone))
- Videos of class lectures
- Assignments and related submission Dropbox
- Additional materials: reference material, additional practice problems with solutions, listing of recommended textbook exercises.



Grading Scheme			
Assessment Title	Assessment Description	Tool	Weight
a. Show me your work	Individual submissions based on in (best 8 of 10 weeks).	MS Word	5%
b. Assignment 1: (Individual)	Basic analysis and report.	MS Word, Excel	10%
c. Assignment 2: (Individual)	Perform analysis and create report.	MS Word, Excel and Power BI	10%
d. Assignment 3: (Individual)	Perform analysis and create report.	MS Word, Excel and Power BI	10%
e. Assignment 4: (Group Project)	In a group, create dashboard and report, and present to stakeholders.	MS Word, Excel and Power BI	15%
f. Final Exam (In-person)	Analysis and response to questions.	MS Word, Excel and Power BI	50%
Total			100%

Policies & Accommodations

<https://students.carleton.ca/course-outline/>

<https://carleton.ca/pmc/current-students/academic-accommodations/>



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Preparation and Participation:

a. Show Me Your Work (5%)

This course is heavily practice-based. You can't simply read the textbook to develop the required skills. You will practice techniques by completing labs, cases, and problems.

After class each week, you will be asked to upload your work resulting from one of the problems we complete together in class. The submissions will be reviewed for completion and reasonableness, but not graded in detail. The purpose of the grades is to provide you with a reward for participating in problem-solving during the lectures. Think of it as getting credit each week for participation and completion of a recommended problem. There will be 10 "Show Me Your Work" and only 8 will be counted towards your final participation grade and you can drop your two lowest scores.

Because of the flexibility built into this component of your grade, I will not offer extensions or make-up opportunities for this part of the course grade.

(b.- d.) Individual Assignments – 3 in total (30%)

The assignments will be due on the following dates by **11:59 pm**:

<u>Assignment #</u>	Due date
a. Assignment 1: Basic Investigation	May 22
b. Assignment 2: Analysis and Report	June 15
c. Assignment 3: Analysis and Report	July 17

Assignments are done individually. Students will NOT put names on their assignments. I will be able to assess assignments anonymously to maintain impartiality throughout the marking process.

Late policy for individual assignments

The assignment deadlines afford plenty of time after the completion of related course material and as such, should be sufficient. Do not wait until the last minute to attempt the assignments.

Sometimes, despite our best efforts, and for good reasons, we can't meet our deadlines. In this course, you have two days of grace that you can apply to missed deadlines. For example, a single assignment may be two days late or two assignments may each be one day late with no penalty. There is no reason required. However, you need to email me before the deadline indicating that you will be late, but that you do plan on submitting your assignment. Once the two days have been used, no further late submissions will be accepted and any late submissions at that stage will receive 0. This is only applicable for individual assignments.

d. Group Project (15%)

Additional information regarding the group project will be provided on Brightspace.

The assignment will be due July 31th by 11:59 PM.

Late submissions will not be accepted.

Before beginning the group project, each group must submit a group contract and project plan. This submission will be assessed on a completion basis. At the end of the term, you should complete and submit an Evaluation Form where you will evaluate every team member's contribution to the team effort (including your own). Consistent poor peer evaluations may result in reduced individual grades on team assignments.

Thus, your final individual grade for the Team Project will be based on:

1. Completion of the group contract and project plan
2. The quality of the report/presentation
3. Peer evaluation

Additional instructions will be provided in Brightspace.

e. Final Exam (50%)

The final exam **will be held in person** during the final exam period (August 17-23). The duration of the exam will be 3 hours. The final examination will cover the whole course. The final exam will be in person.

You need to obtain a minimum grade of 40% on the final exam to pass this course.

The default assumption is that students will write the final exam in person on campus. If a student is not be able to come to campus because they are studying remotely, they can apply to write at a distance (<https://carleton.ca/ses/distance-exams/>).

There is a cost associated with distance services:

Service	Cost Estimate per assessment
Writing Domestically with a proctor at a testing centre	\$105.00 CAD + Proctoring Fees
Writing Internationally with a proctor at a testing centre	\$188.00 CAD + Proctoring Fees

Please note that the above fee applies to both Distance/off-campus exams and Deferred Final off-campus exams. All fees are effective from May 1, 2025.

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Course Schedule *(Please note that dates are subject to change)*

Week #	Dates	Topic	Related Assessment	
			Participation (SMYW)	Assignment
1	06-May-26	Data and Analytics in the Accounting Profession and Foundational Data Analysis Skills		
2	11-May-25	Motivations and Objectives for Data Analysis	SMYW 1	
3	18-May-25	Introduction to Data Visualizations and Reports	SMYW 2	Assignment 1 due May 22, 2026, by 11:59 pm
4	26-May-25	Analysis: Data Preparation	SMYW 3	
5	01-Jun-25	Analysis: Data Preparation	SMYW 4	
6	09-June-25	Analysis: Information Modelling	SMYW 5	Assignment 2 due June 15, 2026, by 11:59 pm
June 18- July 2 - Reading Week				
7	02-July-25	Analysis: Information Modelling cont'd, Control Assessment and the Technological Environment	SMYW 6	
8	06-July-25	Analysis: Data Exploration	SMYW 7	
9	13-July-25	Interpreting Data Analysis Results and Communicating Data Analysis Results	SMYW 8	Assignment 3 due July 17, 2026, by 11:59 pm.
10	20-July-25	MindBridge	SMYW 9	
11	27-July-25	Recent Data and Analyses Developments in Accounting	SMYW 10	Assignment 4 due July 31, 2026, by 11:59 pm
12	04-August-25	Final Review		

***Refer to Academic Calendar for dates University Closed Dates and Holidays**
<https://calendar.carleton.ca/academicyear/#summer2026>

e-Proctoring

Please note that tests and examinations in this course will use a mandatory remote proctoring service provided by Scheduling and Examination Services. You can find more information at <https://carleton.ca/ses/e-proctoring/> .

Students are responsible for ensuring that the application is working properly on your computer during the exam. Failure to ensure proper functioning of CoMaS will constitute a violation of the exam rules and may be grounds for an allegation that you have violated the Academic Integrity Policy.

The minimum computing requirements for this service are as follows:

- Hardware: Desktop, or Laptop
- OS: Windows 10 or higher, Mac OS 10.14 or higher
- Internet Browser: Google Chrome, Mozilla Firefox, Apple Safari, or Microsoft Edge
- Internet Connection (High-Speed Internet Connection Recommended)
- Webcam (HD resolution recommended)
- Note: Tablets, Chromebooks, Smartphones and Windows-based tablets are not supported at this time.

Deferred final exams:

If you wish to defer a **Formal Final Exam**, you – the student – must reach out to the registrar's office with the proper documentation prior to the deadline (please refer to <https://carleton.ca/registrar/deferral/> for dates). Once the request has been put through, your instructor will be notified for their approval.

Use of Generative Artificial Intelligence

AI use in this course varies by assignment. Some activities will explicitly invite you to use AI tools; others will require work completed independently. Please read each assignment's instructions carefully for permitted and prohibited uses. When AI is used, be transparent about how you used it and apply critical judgment to verify its accuracy and relevance.

Contribution to Learning Goals of the Program ([BCom](#), [BIB](#)):

Program Learning Goal	Competencies Not Covered	Competencies Introduced (only)	Competencies Taught But Not Assessed	Competencies Taught and Assessed
BC1 Knowledge <i>Graduates will be skilled in applying foundational business knowledge to appropriate business contexts.</i>				✓
BC2 Collaboration <i>Graduates will be collaborative and effective contributors in team environments that respect the experience, expertise and interest of all members.</i>			✓	
BC3 Critical Thinking <i>Graduates will be discerning critical thinkers, able to discuss different viewpoints, challenge biases and assumptions, and draw conclusions based on analysis and evaluation.</i>				✓
BC4 Communication <i>Graduates will be effective and persuasive in their communications.</i>				✓
BI5 Global Awareness (BIB ONLY) <i>Graduates will be globally-minded.</i>	✓			

ADDITIONAL INFORMATION

Course Sharing Websites

Materials created for this course (including presentations and posted notes, labs, case studies, assignments, and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

Recommended Calculator for Examinations

If you are purchasing a calculator, we recommend anyone of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII

Group work

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, followership, and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

Grading

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52
F = Below 50			

Grades entered by Registrar:

WDN = Withdrawn from the course

DEF = Deferred

Academic Regulations

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

Requests for Academic Accommodation

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the *Academic Consideration Policy for Students*

in Medical and Other Extenuating Circumstances, are outlined on the Academic Accommodations website (students.carleton.ca/course-outline).

Pregnancy Accommodation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the [pregnancy academic accommodation process](#).

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the [religious academic accommodation process](#).

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the [Paul Menton Centre website](#).

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit the [Equity and Inclusive Communities website](#).

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see the [Senate Policy on Accommodation for Student Activities \(PDF, 25 KB\)](#).

Academic Consideration for Medical and Other Extenuating Circumstances

Due to medical and other extenuating circumstances, students may occasionally be unable to fulfil the academic requirements of their course(s) in a timely manner. The university supports the academic development of students and aims to provide a fair environment for students to succeed academically. Medical and/or other extenuating circumstances are circumstances that are beyond a student's control, have a significant impact on the student's capacity to meet their

academic obligations, and could not have reasonably been prevented. Students may request Academic Consideration for Coursework or Other Academic Deliverable. For further information please review the [Procedure for Academic Consideration](#) and the [FAQ page](#).

Scheduling and Examination Support

Scheduling and Examination Services provides various supports for both in-term and end-of-term tests and exams. Details can be found on the [Exam Support website](#).

Academic Integrity

Violations of academic integrity are a serious academic offence. Violations of academic integrity – presenting another’s ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the degree and will not be tolerated.

Process: If an alleged violation occurs, all relevant documentation will be forwarded to the Dean. If the allegation proves true, the penalties may include; a grade of Failure on the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from full-time studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. **For a first offence, at a minimum, the penalty assigned will normally be a zero on the submitted work and at least a minimum full grade reduction of the final course grade. For a second offence, at a minimum, the penalty assigned will normally lead to a suspension from studies.**

Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: <https://carleton.ca/registrar/academic-integrity/>.

Sprott Student Services

The Sprott Undergraduate Student Services Office offers program advising and overall student success support. Our team is available to discuss your academic goals and your program progression plans. We can also work with you to develop strategies for success, including study skills for Business. If you experience any difficulty this term or if you would like to access support, please contact our team at academicadvising@sprott.carleton.ca.

Centre for Student Academic Support

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: carleton.ca/csas.

Important Information:

- Students must always retain a copy of all work that is submitted.
 - All final grades are subject to the Dean's approval.
 - For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, in order to respond to your inquiries, please send all email from your Carleton CMail account. If you do not have or have yet to activate this account, you may wish to do so by visiting <https://carleton.ca/its/get-started/new-students-2/>
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