



**DATA ANALYTICS AND  
INFORMATION SYSTEMS FOR  
ACCOUNTING**  
BUSI 3040 /SECTION B  
WINTER 2025

<b>Instructor:</b>	Naomi Fernando, CPA (she/her/hers)
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<b>Office:</b>	Nicol Building 7036
<b>Office Hours:</b>	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.
<b>Modality:</b>	HyFlex
<b>Class Times:</b>	Friday 11:35 – 14:35

**In order to stay updated with important notifications and announcements from Carleton University, please download the Carleton University App. This will ensure you receive timely information regarding your courses and other university-related updates throughout the term.**

***Pre-requisites:***

BUSI 1401 or BUSI 2400, and BUSI 3007 with a grade of C- or higher in each.

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**Land Acknowledgement**

We acknowledge that the land on which Carleton campus is located is the traditional, unceded territory of the Algonquin Anishinaabeg people. The Algonquin peoples have lived on this land since time immemorial. We are grateful to have the opportunity to learn together and to learn from each other in this territory.

## **Course Calendar Description (from the 2024/2025 University Calendar)**

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.

## **Drop Course Policy**

The deadline for academic withdrawal follows the dates prescribed by Carleton University:  
<https://calendar.carleton.ca/academicyear/>

The deadline to drop this course with full fee adjustment is January 31<sup>st</sup>, 2025. The last day to withdraw from full winter courses is March 15<sup>th</sup>, 2025.

## **Learning Outcomes:**

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.
6. Apply data analytics to auditing, financial accounting, management accounting and tax.

## Reading(s)/Textbook(s)/Required Materials

### 1) Textbook:

Data and Analytics in Accounting: An Integrated Approach, 1st Edition,  
Dzurinin, Geerts, Lenk ISBN: 978-1-119-72315-8

Available at: [www.wileyplus.com](http://www.wileyplus.com)

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

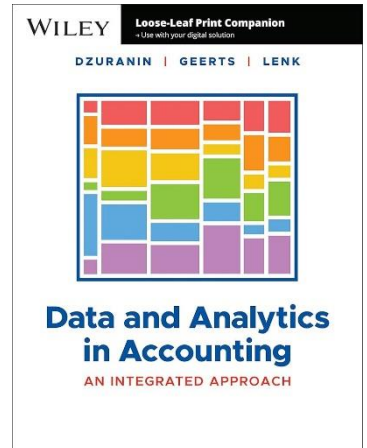
### 2) Software:

- 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](http://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%
<b>Total</b>			<b>100%</b>

**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.

Showing me your work earns you 5% of your final grade in this course.

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**:

<b><u>Assignment #</u></b>	<b>Due date</b>
b. Assignment 1: Basic Investigation	January 24
c. Assignment 2: Analysis and Report	February 14
d. Assignment 3: Analysis and Report	February 28

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.

**e. Group Project (15%)**

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

The assignment will be due **March 28<sup>th</sup> by 11:59 PM.**

Late submissions will not be accepted.

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) the quality of the report/presentation; and
- (2) peer evaluation.

Additional instructions will be provided in Brightspace.

**f. Final Exam (40%)**

The final exam will be held in person during the final exam period (April 11-26). 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.**

## **Comments on Marking**

The assignments and final exam will be marked by the teaching assistant and the instructor together and follow a rigorous quality control process that reasonably assures that the grade awarded is fair. However, no system is 100% error-free, so it is possible that you may wish to call into question a grade that has been awarded. In this circumstance, please write a brief email describing the difficulty with the awarded grade to the instructor no later than seven calendar days following the date the assignment was handed back. Please be sure to include your student number and your assignment # in the email to enable us to properly identify it.

## **Reduction of Bias**

I try to reduce unintentional bias in grading by, for example and when possible, grading anonymously, using clear and specific rubrics, and grading tests one question at a time (grading all of question 1 before grading any of question 2), etc.



## Course schedule

Week #	Dates	Topic	Related Assessment	
			Participation (SMYW)	Assignment
1	10-Jan-25	Data and Analytics in the Accounting Profession and Foundational Data Analysis Skills		
2	17-Jan-25	Motivations and Objectives for Data Analysis	SMYW 1	
3	24-Jan-25	Introduction to Data Visualizations and Reports	SMYW 2	Assignment 1 due January 24, 2025, by 11:59 pm
4	31-Jan-25	Analysis: Data Preparation	SMYW 3	
5	07-Feb-25	Analysis: Data Preparation	SMYW 4	
6	14-Feb-25	Analysis: Information Modelling	SMYW 5	Assignment 2 due February 14, 2025, by 11:59 pm
<b>February 17-21 - Reading Week</b>				
7	28-Feb-25	Analysis: Information Modelling	SMYW 6	
8	07-Mar-25	Analysis: Data Exploration	SMYW 7	Assignment 3 due February 28, 2025, by 11:59 pm.
9	14-Mar-25	Interpreting Data Analysis Results and Communicating Data Analysis Results	SMYW 8	
10	21-Mar-25	MindBridge	SMYW 9	
11	28-Mar-25	Recent Data and Analyses Developments in Accounting and Final Review	SMYW 10	Assignment 4 due March 28, 2025, by 11:59 pm
12	04-Apr-25	Assignment 4 presentations		

\*\* Please note that this schedule is subject to change

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
<b>CHECK (X) ONE PER ROW</b>				
<b>BC1 Knowledge</b> <i>Graduates will be skilled in applying foundational business knowledge to appropriate business contexts.</i>				✓
<b>BC2 Collaboration</b> <i>Graduates will be collaborative and effective contributors in team environments that respect the experience, expertise and interest of all members.</i>			✓	
<b>BC3 Critical Thinking</b> <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>				✓
<b>BC4 Communication</b> <i>Graduates will be effective and persuasive in their communications.</i>				✓
<b>BI5 Global Awareness (BIB ONLY)</b> <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).

### Required calculator in BUSI course examinations.

If you are purchasing a calculator, we recommend any one 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](http://students.carleton.ca/course-outline)).

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

### **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, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

### **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, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

### **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](mailto: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. [carleton.ca/pmc](https://carleton.ca/pmc)

### **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 its 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: [carleton.ca/sexual-violence-support](https://carleton.ca/sexual-violence-support)

### **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. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: [students.carleton.ca/course-outline](https://students.carleton.ca/course-outline)

### **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 [bcom@sprott.carleton.ca](mailto:bcom@sprott.carleton.ca) or at [bib@sprott.carleton.ca](mailto:bib@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](http://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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