



Carleton
University

Sprott
School of Business

CARLETON UNIVERSITY
SPROTT SCHOOL OF BUSINESS
BUSI 3040 R
WINTER 2023
DATA ANALYTICS AND INFORMATION SYSTEMS FOR ACCOUNTING

Instructor: Melissa Robertson, MAcc, CPA (she/her/hers)

Office Hours & Location: Available upon request on Fridays between 1-2. Please email to request.

Email: MelissaRobertson@cunet.carleton.ca

TA: Sakina Janmohamed

Office Hours: Available upon request.

Email: SakinaJanmohamed@cunet.carleton.ca

Modality: Hyflex

Classroom: Fridays from 14:35 – 17:25 in Minto Centre 2000

Virtual meeting: via Zoom (see Brightspace for link)

Pre-requisites: BUSI 2400 and BUSI 3007 with a grade of C- or higher in each

Course Calendar description from the [2022/2023 University calendar](#):

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.

Includes: Experiential Learning Activity

Prerequisite(s): [BUSI 2400](#) and [BUSI 3007](#) with a grade of C- or higher in each.

Lecture three hours a week.

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. Specific topics include data collection, cleaning, analyzing, visualization, data-driven decision making, and communication of results to stakeholders. Students will also learn

about the implications of data analytics on auditing as well as financial and managerial accounting.

Learning Outcomes:

After completing this course, students will be able to:

1. Understand 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. Gain insight from data using data visualization.
5. Interpret results from data analysis in order to make decisions.
6. Communicate the results of data analysis to stakeholders.
7. Apply data analytics to auditing, financial accounting, management accounting and tax.

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

Textbook: Vernon Richardson, Ryan Teeter, and Katie Terrell, **Data Analytics for Accounting**, 3rd Edition, McGraw Hill, 2022 (9781265094454)

Course Requirements & Methods of Evaluation (including due dates):

*See “Course Schedule” section below for due dates.

Assessment Title	Assessment Description	Tool	Weight
Show Me Your Work	Individual submissions based on in-class work (best 8 of 10)	Word processor	30%
Assignment 1: Identify the Questions	Individual analysis and peer review	Word processor	5%
Assignment 2: Basic Investigation	Individual analysis and report	Excel	10%
Assignment 3: Comparing Tools	In pairs, perform analysis and create report	Excel and Power BI	10%
Assignment 4: Audit Data Analytics	Individually use audit data analytics to answer questions	MindBridge	10%
Assignment 5: Managerial Analytics	In a group, create dashboard and report, and present to stakeholders	Power BI or Tableau	15%
Take-home Final	Analysis and response to questions	Power BI or Tableau	20%
Total			100%

Course Schedule:

<u>Class</u>	<u>Topic</u>	<u>Deliverables</u>
1 Jan 13	Data Analytics for Accounting and Identifying the Questions	
2 Jan 20	Mastering the Data	Show Me Your Work 1 Assignment 1 due 2 pm Fri Jan 20
3 Jan 27	Mastering the Data (Continued)	Show Me Your Work 2 Peer Review of Assign. 1 due 2 pm Fri Jan 27
4 Feb 3	Performing the Test Plan and Analyzing the Results	Show Me Your Work 3 Assignment 2 due 2 pm Fri Feb 3
5 Feb 10	Communicating Results and Visualizations	Show Me Your Work 4
6 Feb 17	Practice with data visualization tool	Show Me Your Work 5 Assignment 3 due 2 pm Fri Feb 17
Feb 20 - 24	BREAK	
7 Mar 3	The Modern Accounting Environment	Show Me Your Work 6
8 Mar 10	Audit Data Analytics Introduction to MindBridge	Show Me Your Work 7
9 Mar 17	Managerial Analytics	Show Me Your Work 8 Assignment 4 due 2 pm Fri Mar 17
10 Mar 24	Financial Statement Analytics	Show Me Your Work 9
11 Mar 31	Assignment 5 Presentations	Assignment 5 due 2 pm Fri Mar 31
12 Apr 12 27	Tax Analytics	Show Me Your Work 10
		Take-home Final Exam available 8 am April 12, due 2 pm April 27

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

ADDITIONAL INFORMATION

Show Me Your Work

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, 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 the problem-solving during the lectures. Think of it as getting credit each week for participation and completion of a recommended problem. There will be "Show Me Your Work" opportunities in weeks 2-9 inclusive (so you have 8 opportunities), and you can drop your two lowest scores. Showing me your work earns you 18% 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.

Brightspace

Brightspace will be used in this course. It is critical to use this learning tool on a regular basis. We will be using Brightspace as follows:

- To communicate with students on regular basis (e-mail, announcements, etc.)
- To host Weekly Deliverables documents outlining recommended readings, deliverables, etc. each week
- To post notes of an administrative nature or updates to the course outline, if required
- To provide a place for you to upload your Show Me Your Work submissions

To access Brightspace, type in the following URL: <https://brightspace.carleton.ca>

Getting Help

When you have a question about the course material, please refer to the Ask the Instructor discussion board in Brightspace. If your question is not already answered there, then post a new question on the discussion board. I aim to respond within 24-48 hours (Monday to Friday).

Of course, if you want to discuss a sensitive issue you are encouraged to email the instructor to arrange a time to discuss the issue privately.

Late Coursework

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.

The days of grace are not available for group assignments unless all group members have the required number of days available to them individually (e.g. both partners need one day of grace available in order to submit their group project one day late).

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).

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, follower-ship 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

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

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

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. 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

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

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 or at 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.

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/>

Covid-19 Information:

It is important to remember that COVID is still present in Ottawa. The situation can change at any time and the risks of new variants and outbreaks are very real. There are [a number of actions you can take](#) to lower your risk and the risk you pose to those around you including being vaccinated, wearing a mask, staying home when you're sick, washing your hands and maintaining proper respiratory and cough etiquette.

Feeling sick? Remaining vigilant and not attending work or school when sick or with symptoms is critically important. If you feel ill or exhibit COVID-19 symptoms do not come to class or campus. If you feel ill or exhibit symptoms while on campus or in class, please leave campus immediately. In all situations, you must follow Carleton's [symptom reporting protocols](#).

Masks: Carleton has paused the [COVID-19 Mask Policy](#), but continues to strongly recommend masking when indoors, particularly if physical distancing cannot be maintained. It may become necessary to quickly reinstate the mask requirement if pandemic circumstances were to change.

Vaccines: Further, while proof of vaccination is no longer required as of May 1 to attend campus or in-person activity, it may become necessary for the University to bring back proof of vaccination requirements on short notice if the situation and public health advice changes. Students are strongly encouraged to get a full course of vaccination, including booster doses as soon as they are eligible, and submit their booster dose information in [cuScreen](#) as soon as possible. Please note that Carleton cannot guarantee that it will be able to offer virtual or hybrid learning options for those who are unable to attend the campus.

All members of the Carleton community are required to follow requirements and guidelines regarding health and safety which may change from time to time. For the most recent information about Carleton's COVID-19 response and health and safety requirements please see the [University's COVID-19 website](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca.
