



<b>Course Code: BUSI 3434 A</b>
<b>FALL 2025</b>
<b>Data Visualization for Business Analytics</b>

<b>Instructor</b>	Stephen Davies
<b>Email Address</b>	stephen.davies@carleton.ca
<b>Class Times</b>	8:35 – 11:25
<b>Modality</b>	In Person
<b>Office Hours</b>	TBA
<b>Office Location</b>	TBC
<b>TA Name/Email</b>	TBC

<b>Pre-Requisites &amp; Preclusions:</b>
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Prerequisites: BUSI 2401 & STAT 2601

<b>Course Description/Instructor’s Statement</b>
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Carleton Calendar Description  
 Visual representation and presentation of data to facilitate understanding. This includes visual data exploration, perception, interpretation, and communication in exploratory and declarative situations. Practical skill development using current data visualization software

Instructor’s Description:  
 This course provides an introduction as well as hands-on experience in data visualization. It introduces students to design principles for creating meaningful displays of quantitative and qualitative data to facilitate managerial decision-making.

- Course Learning Objectives:
- Develop an understanding of the fundamentals of communication and alignment around concepts that are required for effective data presentation
  - Develop an introductory level of competency on Microsoft Power BI
  - Understand the fundamentals of visual data discovery including the ability to: select appropriate chart types and representation; and identify trends and distributions.
  - Understand the fundamentals of visual data deployment including the ability to: select and use preattentive attributes; design and implement dashboards; and effectively apply storytelling principles
  - Obtain basic knowledge needed to critique various visualizations and to identify design principles that make good visualizations effective.
  - Have a basic understanding of some of the challenges present in making data understandable across a wide range of potential audiences.

## Required/Optional Materials & Prices

- Must bring laptop to class
- Microsoft Power BI desktop must be downloaded onto laptop
- Tableau is a valid other option only if student is using a MacBook (Power BI is preferred, see class announcement for technical details)

### ***Title of Textbook***

Book (online e-book is fine):

Nussbaumer Knafllic, C. (2015). *Storytelling with Data: A Data Visualization Guide for Business Professionals*, Wiley (available on Amazon)

Please purchase the textbook(s) from the campus bookstore in Nideyinàn (formerly the University Centre) or through the bookstore website: <https://carleton.ca/campus-services/the-bookstore/>.

## Grading Scheme

Course Deliverables and Evaluation:

Subject to change at instructor's discretion

In-Class Exercises:	20%
Take-home Assignments:	25%
In-Class Skills Assessment:	20%
Project (group):	35%
Total:	100%

All work is individual unless otherwise indicated. Each component of your grade will be assigned a percentage score. Your final course grade will be a weighted average of each of these components. You must complete all components of the class above with a passing grade to pass the course.

Late work will be penalized at 10% per day.

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## Tentative Schedule

The following schedule and number of deliverables may be changed at the discretion of the instructor.

Week	Date	Topic / In class exercise (ICE)	Readings
1	9 Sep 2025	Introduction and Background	
2	16 Sep 2025	Power BI Course / ICE-1/ICE 2/ICE 3	Power BI course slides & data
3	23 Sep 2025	Power BI Course Review / Data Prep / Project Review	Chapter 1
4	30 Sep 2025	Chart types / ICE 4	
5	7 Oct 2025	Pre-attentive Attributes and Gestalt / ICE-5	Chapters 2, 3, 4 (up to page 117)
6	13 Oct 2025	Assignment 1 due at 11:59PM	
6	14 Oct 2025	Colour, Font & layout / Project Check in / ICE-6	Chapter 4 (remainder)
	21 Oct 2025	---- FALL BREAK --- NO CLASS ---	
7	28 Oct 2025	Maps, tables, aggregation / ICE-7	
8	4 Nov 2025	Dashboard design / ICE-8	
9	11 Nov 2025	Evaluating and improving charts / ICE-9	Chapter 5-6
10	18 Nov 2025	Storytelling 1 / ICE-10	Chapters 7-8
11	24 Nov 2025	Assignment 2 due at 11:59PM	
11	25 Nov 2025	In-class skills assessment	
12	2 Dec 2025	In-class Project presentation	
NA	14 Dec 2025	Project documentation due at 11:59PM	

University Academic Calendar: <https://calendar.carleton.ca/academicyear/>

## Policies & Accommodations

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

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



Stay updated with important notifications and announcements from Carleton University, by downloading the Carleton University App!

**Preparation and Participation:**

Lecture attendance is mandatory due to the nature of the in-class exercises (ICE). Advanced notice of absence is required and uncommunicated / unexplained absence will impact the students in-class exercise mark. If a student needs to be legitimately absent, then the ICE contribution will be prorated across the other classes.

Group work in the project is mandatory. Contributions to group work will be tracked and a lack of contribution or group disruption (agreed in consultation with the other group members) will lead to a reduced mark at the discretion of the lecturer for the Group projected mark contribution.

**Contribution to Programmatic Learning Goals**

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>		<b>X</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>X</b>			
<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>X</b>		
<b>BC4 Communication</b> <i>Graduates will be effective and persuasive in their communications.</i>			<b>X</b>	
<b>BI5 Global Awareness (BIB ONLY)</b> <i>Graduates will be globally-minded.</i>	<b>X</b>			

## 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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