



**Carleton**  
UNIVERSITY

**SPROTT**  
SCHOOL OF BUSINESS

**BUSI 4408 A**  
**Social Analytics**  
**Fall 2020**

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**Instructor: Mike Hine, Ph.D.**

E-mail: mike.hine@carleton.ca  
Office: DT921  
Phone: 613-520-2600 x2662  
Office Hours: Online TBA

Classroom: Virtual through Zoom  
Class Dates: W: 2:35 PM – 5:25 PM  
TA: TBA

Modality: Online. The amount of synchronous/asynchronous work will vary per week.

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**Prerequisites**

BUSI 2400, BUSI 2208, STAT 2607, 3rd year standing. Restricted to students enrolled in B.Com, BIB.

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**Course Calendar Description**

Covers the process, tool and techniques necessary to acquire, clean and analyze text that has been generated on social platforms. Social network analysis, sentiment analysis, topic extraction, co-occurrence analysis.

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**Social Analytics**

The barriers to content creation for the web have been virtually eliminated resulting in a proliferation of user and organizationally generated unstructured data that is available for analysis. In fact, 75-80% of the world's available data is unstructured text and its rate of growth is 15 times that of structured data. A large portion of this data is created through social platforms including but not limited to: twitter, facebook, Reddit, linkedIn, blogs, wikis, and online review sites. Increasingly, organizations are mining and analyzing this data to inform their organizational decision making.

The main purpose of this course is to expose students to the process and tools necessary to acquire, clean, and analyze text that has been generated on social platforms. A portion of the analysis section of the course will focus on visualization techniques to facilitate both the interpretation of the data and the derivation of tangible recommendations in the context of organizational decision making.

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**Learning Objectives**

- Understand the importance of social platform data to organizational strategy and decision making
- Understand the fundamentals of, and demonstrate proficiency in social network analysis
- Understand the fundamentals of, and demonstrate proficiency in text analytics

- Sentiment analysis
- Topic extraction
- Co-occurrence analysis
- Cluster analysis
- Dictionary Development

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## Materials

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Miranda, S. (2017). *Introduction to Social Analytics: Concepts and Methods*.  
 Available from: cuLearn

Provalis Research (2014). *Wordstat 7/8 User's Guide*  
 Available from: cuLearn

Struhl, S. (2015). *Practical Text Analytics. Interpreting text and unstructured data for business intelligence*.  
 Available from: library

Other readings as distributed throughout the semester.

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## Tentative Course Schedule

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

Session	Date	Topic / Important Deadlines	Chapter / Readings
1	Sept 16	Course Administration – Introduction – Social Analytics Concepts	Miranda: C1/C2
2	Sept. 23	Social Network Analysis I / Exercise I	Miranda: C3
3	Sept 30	Social Network Analysis II / Exercise II	Miranda: C5
4	Oct 7	Social Network Analysis III: Guest Speaker /Case	
5	Oct 14	Introduction to Text Analytics / SNA A1 Due	Struhl: C1
6	Oct 21	Text Analytics I / Exercise III	Struhl: C2, C3, C4 WordStat: 1-96
	Oct 28	FALL BREAK: no class	
7	Nov 4	Text Analytics II / Exercise IV	Struhl: C2, C3, C4 WordStat: 1-96
8	Nov 11	Text Analytics III / Project Proposal Due / Exercise V (tentative)	Struhl: C5, C6 WordStat: 1-96
9	Nov 18	Visualization I / Text Analytics A2 Due	Struhl: C6 WordStat: 1-96
10	Nov 25	Visualization II: Tableau	
11	Dec 2	Visualization III: Tableau / Exercise VI (tentative)	
12	Dec 9	Project Roundtable*	

\*Final Project is due December 23rd

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## Project

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Projects can be done individually or in groups of up to 3. While there is considerable flexibility in the deliverable, there are two main paths to a successful project. The first is a detailed analysis and write up of one or more data sets using the techniques we have covered in the class. The second is a substantive paper on a specific topic related to the class. All projects must be approved and you will be required to give a short 6-8 minute presentation on the last day of class about your topic. The final project is not due until the last day of exams but the

expectation is that you will have made reasonable progress by the last day of classes so that you can present coherently and knowledgeably.

More details about the project will be available in week 2 or 3 of the class.

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### Exercises

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In many of the sessions you will spend approximately 1 hour working on a small task that will be given to you during the class. You will be expected to complete the task in the allocated time and then hand in the work at the end of the session. This is individual work but you are encouraged to help each other out as it will be difficult for me to support everyone in real-time.

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### Assignments

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There will be 2-3 take home assignments covering social network analysis, text analytics and possibly Tableau. This is individual work.

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### Evaluation

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Your final grade will be composed of the following:

<b>Exercises</b>	<b>25%</b>
<b>2-3 Take Home Assignments</b>	<b>30%</b>
<b>Final Project</b>	<b>45%</b>

- Take home assignments are due at the beginning of the class.
- Late assignments will be penalized 20% per day

## 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, 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.

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 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](http://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](http://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](http://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. 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. 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 student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you are having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in\* any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring, concentrations, and will ensure that you get connected

with the resources you need to succeed! <http://sprott.carleton.ca/students/undergraduate/learning-support/>

\* Note that the office is physically closed. However, e-drop in is available between 8:30-4:30 until social distancing requirements are updated by the Province.

### **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 hard 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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