

## Foundations of Information Systems

BUSI1401/G  
WINTER 2025

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<b>Office Hours:</b>	Fridays, 1pm-2pm
<b>TA:</b>	TBA
<b>Office Hours:</b>	TBA
<b>Email:</b>	TBA
<b>Modality:</b>	In-person
<b>Class Times:</b>	Fridays, 8:35am-11:25am

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**Pre-requisites:** none

**Precludes:** additional credit for 2400

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

This course helps student to understand the critical role of information systems in organizations and their impact on social and ethical issues. Covers fundamental tools and skills for the development and management of information systems and business analytics in organizations.

### **Course Description:**

This course will help students understand the critical role that information systems play in the innovation and productivity of every Canadian industry. The Sprott School of Business recognizes the growing innovation gaps and the challenge of developing skills in our students for a fast-evolving and changing business environment where information and communication technologies (ICTs) play a significant role in the transformation. The skills needed are rooted in studies of both information technology and business. This course is the door to these topics for many students.

Organizations are becoming more virtual, and people will be working with clients and colleagues, they may never meet face to face their skills using ICTs will determine their success in the workplace. Many jobs that are here today will be eliminated, and new jobs will take their place. Change will be driven by people familiar with both business knowledge and technology skills.

### **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. Develop basic skills for data analysis including programming, spreadsheets, and databases.
2. Understand what information systems are and the way they are used in organizations.
3. Explain the role information systems play in managerial decision-making.
4. Understand the impact ICTs have on productivity, innovation, and strategy.
5. Explain how information systems are used for competitive advantage.
6. Assess the challenges associated with the management of information systems.

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

Introduction to Information Systems, 6th Canadian Edition

R. Kelly Rainer, Brad Prince, Cristobal Sanchez-Rodriguez, Sepideh Ebrahimi, Ingrid Splettstoesser  
WILEY  
ISBN: 978-1-394-16416-5

Cost (different options to access the textbook):

E-Book Rental (150 days): CAD \$57.00

Single Term Access to WileyPLUS: CAD \$98.95

Print: CAD \$153.95

### Lab and software

PYTHON

PYTHON 3.11.4 <https://www.python.org/downloads/>

IDLE IDE (comes with Python 3.11.4) (Any other code editor compatible with Python 3 can be used, e.g., Visual Studio Code, or PyCharm.)

## Microsoft Excel

This course requires either Microsoft Excel, from either Office 2019 or Office 365. Instructions for obtaining Office 365 through your school email account are provided on Brightspace.

## Microsoft Outlook and Teams

As communication outside of Brightspace will be facilitated through Carleton's email services, students are advised to access and become familiar with Microsoft Outlook and Teams. These services are available through web browsers as well as desktop applications

## Optional Readings

Python For Everyone, 3rd Edition

Cay S. Horstmann, Rance D. Necaise

Wiley

Print ISBN: 978-1-119-49853-7

Bite-Size Python: An Introduction to Python Programming

April Speight

Wiley

Digital ISBN: 978-1-119-64382-1 | Print ISBN: 978-1-119-64381-4

## Other Python Resources

- W3Schools Python Tutorial Series: <https://www.w3schools.com/python/>
- Saylor Academy. (2020, November 17). CS105: Introduction to Python. Retrieved from Saylor Academy: <https://learn.saylor.org/course/view.php?id=439>
- Programming with Mosh Videos: <https://youtu.be/kqtD5dpn9C8> and [https://youtu.be/\\_uQrJ0TkZlc](https://youtu.be/_uQrJ0TkZlc)

## Microsoft Excel

- Introduction to Excel Video: <https://www.youtube.com/watch?v=rwbho0CgEAE>
- Excel Tutorials: Open Excel, File->New, see the Welcome to Excel and other tutorials. They are pre-populated with sample data and instructions on using Excel's various functions.
- Saylor Academy. PRDV004: Spreadsheets. Retrieved from Saylor Academy: <https://learn.saylor.org/course/view.php?id=58>

- Saylor Academy. PRDV006: Spreadsheets II: Formatting and Functions. Retrieved from Saylor Academy: <https://learn.saylor.org/course/view.php?id=876>
- Saylor Academy. PRDV007: Spreadsheets III: Presenting Data. Retrieved from Saylor Academy: <https://learn.saylor.org/course/view.php?id=877>

### Microsoft Outlook

While not covered in this course, Outlook is a foundational information systems tool used in practically every place of business worldwide. Students are advised to explore Microsoft for emailing, tracking course schedules with the integrated calendar, and using the calendar to arrange meetings and appointments.

Guide to Outlook Video: <https://www.youtube.com/watch?v=WfSCfBntqPU>

### **Grading Scheme:**

Class Participation	10%
Assignment 1-Excel	15%
Midterm Exam	25%
Assignment 2-Python	15%
Final Exam	35%
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<b>TOTAL</b>	<b>100%</b>

### **Assignments**

All assignments in this course are to be completed individually. This means that while students can and should discuss the assignment requirements with peers, it is each student's responsibility to provide responses that are their own, in accordance with the university's Academic Integrity policy. It is each student's responsibility to review their submission to ensure that everything submitted meets the requirements of the assignment; missing or irrelevant submitted material will be marked accordingly.

Assignment 1 (Excel) will be released on February 6 and is **due on February 27**. Assignment 2 (Python) will be released on March 20 and is **due on April 3**.

### **Midterm and Final Exam**

The minimum computing requirements for e-proctoring service are as follows:

- Hardware: Laptop
- OS: Windows 10, Mac OS 10.14, Linux Ubuntu 18.04
- Internet Browser: Google Chrome, Mozilla Firefox, Apple Safari, or Microsoft Edge

Note: Chromebooks, tablets (Android, iOS, Windows), and smartphones are not supported by CoMaS at this time. You must complete your exams using Windows-based or MacOS computers.

### Midterm

The midterm exam will happen on week 7 and will cover content from lectures 1-5 (chapters 1-6).

(Midterm will be scheduled by university- note that it will take place outside of class time (which can include Friday evening, Saturday or Sunday))

### Final Exam

The final exam will cover content that were not included in the midterm (chapters 7-14) and will take place during the final exam period announced by the university.

### **Late Assignments:**

Assignments submitted past the due date will receive a penalty of 5% per day. Assignments that are not submitted after 10 days past the due date will receive a grade of 0. Exceptions to this include verifiable illness and emergencies, only when communicated directly to me within three (3) business day following the due date.

### **Deferred Examinations/Assignments:**

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. Your final exam will be formally scheduled. If you miss the deadline for applying for a deferral, please reach out to your instructor personally to discuss.

### **Deferred Midterm Date: Monday, March 10**

The ONLY date for a deferred midterm will be held on Monday, March 10 at 7:15 am in NI 4030. No other deferral options will be considered.

### **Preparation and Participation:**

The course includes class lectures, group discussions, and participation activities. Class attendance is expected and is necessary to successfully complete this course. Actions in the classroom environment should demonstrate intellectual engagement in the course content, as well as respect for classmates and the instructor. As such, any disruptions to the learning environment including but not limited to lectures, group chat and course discussion forum will not be tolerated, and failure to comply with this policy can lead to disciplinary action, up to and including referral to university judiciaries.

During the lectures, students are expected to follow hands-on exercises in Python and Microsoft Excel. These hands-on exercises are designed to provide essential skills that are expected for students in future semesters. Exercise files will be available on Brightspace. This is important experiential learning that will help with the assignments and material cover in the midterm and final exams. Therefore, it is recommended that students spend time during each session working on them.

## Expectations For Communications:

Students are asked to monitor and use their Carleton provided e-mail account (cmail.carleton.ca) regularly and carefully (not personal email accounts such as Yahoo, Gmail or Hotmail) as this is the official conduit through which the instructor will communicate matters that concern the individuals.

The Instructor and Teaching Assistant will only respond to email message from registered students using their cmail.carleton.ca email account and emails must contain a subject line that includes the following notation: BUSI1401 – Section – Student Name – Topic, updating Section, Student Name, and Topic as appropriate. Students should expect an email response within two working days.

Students should ensure that they have set up their Brightspace account to receive notification of announcements to their cmail.carleton.ca email addresses as this is the official conduit through which the instructor will communicate matters that concern the entire class. Email may also occur for course-wide matters to ensure communication has been delivered.

Communication from students to the Instructor, Teaching Assistant, and other students is expected to be thoughtful and professional. Disrespectful communication will not be tolerated. Students are advised to review the university's guidance on electronic communication.

## Course Schedule

Week #	Week of	Topic
1	January 10	- Course Introduction and Administration - Introduction to Information Systems (Ch1) <b>Note:</b> Only this session will be <b>online</b> and <b>asynchronous</b> . Recorded videos will be available on Brightspace. The office hour for this week will be held online, and the Zoom link can be found on Brightspace.
2	January 17	- Organizational Strategy, Competitive Advantage, and Information Systems (Ch2) - Excel Session 1
3	January 24	- Ethics and Privacy (Ch3) - Information Security and Controls (Ch4) - Excel session 2
4	January 31	- Data and Knowledge Management (Ch5) - Excel session 3

- 5 February 7 - Telecommunications and Networking (Ch6)  
- Excel session 4  
- Excel Assignment release date
- 6 February 14 - E-Business and E-Commerce (Ch7)  
- Excel session 5
- 7 February 28 - Wireless, Mobile Computing, and Mobile Commerce (Ch8)  
- Python session 1
- 8 March 7 - Social Computing (Ch9)  
-Python session 2
- 9 March 14 - Information Systems within the Organization (Ch10)  
-Python session 3
- 10 March 21 - Customer Relationship Management and Supply Chain Management (Ch11)  
-Python session 4  
- Python Assignment release date
- 11 March 28 - Business Analytics (Ch 12)  
- Artificial Intelligence (Ch.14)  
- Python session 5
- 12 April 4 - Acquiring Information Systems and Applications (Ch 13)  
- Final exam information and course review

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

<b>Program Learning Goal</b>	<b>Competencies Not Covered</b>	<b>Competencies Introduced (only)</b>	<b>Competencies Taught But Not Assessed</b>	<b>Competencies Taught and Assessed</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</i>			✓	

<i>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 Spratt 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](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](http://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](http://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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