

# CARLETON UNIVERSITY SPROTT SCHOOL OF BUSINESS BUSI 1401 E|G WINTER 2023 FOUNDATIONS OF INFORMATION SYSTEMS

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TA: TBD Office Hours: TBD Email: TBD

Modality: In Person Time: <u>Section E:</u> Tuesdays 08:35- 11:25 am <u>Section G</u>: Thursdays 14:35-17:25 Room: <u>Section E:</u> TB 342 <u>Section G</u>: NI 3020

### Pre-requisites & precluded Courses: None

### Course Calendar description from the <u>2022/2023 University calendar</u>:

This course helps students 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

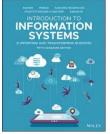


the door to these topics for many students. Organizations are becoming more virtual, and people will be working with clients and colleagues, they may never meet face to face their skills using ICTs will determine their success in the workplace. Many jobs that are here today will be eliminated, and new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

# **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, 5th Canadian Edition

R. Kelly Rainer, Brad Prince, Cristobal Sanchez-Rodriguez, Ingrid Splettstoesser-Hogeterp, Sepideh Ebrahimi WILEY

ISBN: 978-1-119-61321-3

https://www.wiley.com/enca/Introduction+to+Information+Systems%2C+5th+Canadian+Edition-p-9781119613190

# Lab and software

PYTHON

- PYTHON 3.11.0 https://www.python.org/downloads/
- IDLE IDE (comes with Python 3.11.0) (You can use other IDEs like 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 and Technology**

# Python

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

### Microsoft Excel

- Introduction to Excel Video: <u>https://www.youtube.com/watch?v=rwbho0CgEAE</u>
- 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. (2020, September 30). PRDV004: Spreadsheets. Retrieved from Saylor Academy: <u>https://learn.saylor.org/course/view.php?id=58</u>
- Saylor Academy. (2021, January 14). PRDV006: Spreadsheets II: Formatting and Functions. Retrieved from Saylor Academy: <u>https://learn.saylor.org/course/view.php?id=450</u>
- Saylor Academy. (2021, January 15). PRDV007: Spreadsheets III: Presenting Data. Retrieved from Saylor Academy: <u>https://learn.saylor.org/course/view.php?id=451</u>

### 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: <u>https://www.youtube.com/watch?v=WfSCfBntqPU</u>

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

Final grades will be composed of the following:

| Deliverables        | Due Date                          |       | Weight |
|---------------------|-----------------------------------|-------|--------|
| Excel Assignment 1  | Feb. 27 <sup>th</sup> , at 17:00  |       | 20%    |
| Midterm Exam        | March 7 <sup>th</sup>             |       | 25%    |
| Python Assignment   | April 10 <sup>th</sup> , at 17:00 |       | 20%    |
| Final Exam          | TBD                               |       | 30%    |
| Class participation |                                   |       | 5%     |
|                     |                                   | Total | 100%   |

\*There will be a Brightspace site for this course. All expected deliverables are to be submitted though the site. Students will find feedback there as well. It is important to visit the site regularly to stay on top of course expectations

### 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.

# **Midterm Examination**

The midterm exam will cover content from lectures 1-6.

# **Final Examination**

The final exam will cover content from the entire course.

### **Missed Assignments or Examinations**

The only valid excuse for missing an exam or an assignment deadline is for medical reasons and must be documented with a medical certificate. Any other reason (such as travel, etc.) will not be considered. If a student misses the midterm test or a deadline for a reason that is not deemed as legitimate, a mark zero will be assigned, otherwise separate arrangements will be made at the instructor's discretion.

# **Deadlines for Deliverables & Statute of Limitations on Reassessments**

The dates on which assignments are due will be openly published and students are expected to accept responsibility for organizing their affairs to meet the set deadlines. Penalties for late assignment submission may be imposed using the following scheme:

- <u>One day late</u> will be accepted with a reduction of <u>25%</u> of the total mark for the assignment
- <u>Two or more days late</u> will not be accepted and receive a <u>mark of zero</u> for the assignment.

Assignments marks and feedback will be made available online. If a student believes that errors were made in assessment or marking, please provide the instructor with the original evaluation along with a short explanation of the objections. The deadline <u>for requesting a</u> <u>re-assessment is</u> <u>7 working days after</u> the date on which an evaluation was made available to a student. As a result of the reassessment, the original evaluation grade may be raised, lowered, or left unchanged.

# **Lecture Exercises**

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. All other unscheduled or unexpected communication will not be responded to. 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 though 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.

Discussion boards will be available to discuss course topics. It is expected to use these for asking questions that would pertain to the entire course. Student emails to the Instructor or Teaching Assistant on course-wide topics may be reposted to the boards, or the student redirected to a discussion board. Students should expect a discussion board response within one working day.

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.

# **Class Attendance & Decorum**

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.

| Lecture | Date      | Торіс   |  |  |
|---------|-----------|---|--|--|
| 1       | Jan 10    | -Course Introduction and Administration                           |  |  |
|         |           | - Introduction to Information Systems (Ch1)                       |  |  |
| 2       | Jan 17    | - Organizational Strategy, Competitive Advantage, and Information |  |  |
|         |           | Systems (Ch2)   |  |  |
|         |           | -Excel Session 1  |  |  |
| 3       | Jan 24    | - Ethics and Privacy (Ch3)  |  |  |
|         |           | -Excel session 2  |  |  |
| 4       | Jan 31    | - Information Security and Controls (Ch4)                         |  |  |
|         |           | -Excel session 3  |  |  |
| 5       | Feb 7     | - Data and Knowledge Management (Ch5)                             |  |  |
|         |           | -Excel session 4  |  |  |
| 6       | Feb 14    | - Telecommunications and Networking (Ch6)                         |  |  |
|         |           | -Excel session 5  |  |  |
|         | Feb 20-24 | Winter Break  |  |  |
| 7       | Feb 28    | - E-Business and E-Commerce (Ch7)                                 |  |  |
|         |           | -Wireless, Mobile Computing, and Mobile Commerce (Ch8)            |  |  |
|         |           |   |  |  |
| 8       | March 7   | Midterm   |  |  |
| 9       | March 14  | - Social Computing (Ch9)  |  |  |
|         |           | -Python session 1   |  |  |

#### **Course Schedule:**

Below is the expected course schedule, however, changes may occur.

| 10 | March 21 | - Information Systems within the Organization (Ch10)<br>-Python session 2   |
|----|----------|---|
| 11 | March 28 | <ul> <li>Customer Relationship Management and Supply Chain Management<br/>(Ch11)</li> <li>Python session 3</li> </ul> |
| 12 | April 4  | - Business Analytics (Ch 12)<br>-Python session 4   |
| 13 | April 11 | - Acquiring Information Systems and Applications (Ch 13)<br>-Final exam information                                   |

# **Contribution to Learning Goals of the Program** (<u>BCom</u>, <u>BIB</u>):

| Program Learning         | <b>Competencies Not</b> | Competencies      | Competencies Taught | Competencies        |
|--------------------------|-------------------------|-------------------|---------------------|---------------------|
| Goal                     | Covered                 | Introduced (only) | But Not Assessed    | Taught and Assessed |
|                          | CHECK (X) ONE PER ROW   |                   |                     |                     |
| BC1 Knowledge            |                         |                   |                     |                     |
| Graduates will be        |                         |                   |                     |                     |
| skilled in applying      |                         |                   |                     |                     |
| foundational             |                         |                   |                     | X                   |
| business knowledge       |                         |                   |                     |                     |
| to appropriate           |                         |                   |                     |                     |
| business contexts.       |                         |                   |                     |                     |
| <b>BC2</b> Collaboration |                         |                   |                     |                     |
| Graduates will be        |                         |                   |                     |                     |
| collaborative and        |                         |                   |                     |                     |
| effective                |                         |                   |                     |                     |
| contributors in          |                         |                   |                     |                     |
| team environments        |                         |                   | Х                   |                     |
| that respect the         |                         |                   |                     |                     |
| experience,              |                         |                   |                     |                     |
| expertise and            |                         |                   |                     |                     |
| interest of all          |                         |                   |                     |                     |
| members.                 |                         |                   |                     |                     |
| BC3 Critical             |                         |                   |                     |                     |
| Thinking                 |                         |                   |                     |                     |
| Graduates will be        |                         |                   |                     |                     |
| discerning critical      |                         |                   |                     |                     |
| thinkers, able to        |                         |                   |                     |                     |
| discuss different        |                         |                   |                     |                     |
| viewpoints,              |                         | X                 |                     |                     |
| challenge biases         |                         |                   |                     |                     |
| and assumptions,         |                         |                   |                     |                     |
| and draw                 |                         |                   |                     |                     |
| conclusions based        |                         |                   |                     |                     |
| on analysis and          |                         |                   |                     |                     |
| evaluation.              |                         |                   |                     |                     |
| BC4                      |                         |                   |                     |                     |
| Communication            |                         | X                 |                     |                     |
| Graduates will be        |                         | Δ                 |                     |                     |
| effective and            |                         |                   |                     |                     |

| persuasive in their communications. |  |  |
|-------------------------------------|--|--|
| BI5 Global                          |  |  |
| Awareness (BIB                      |  |  |
| ONLY)                               |  |  |
| Graduates will be                   |  |  |
| globally-minded.                    |  |  |

### **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.

# 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: <u>http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/</u>

#### **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: <u>carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Ac</u>

#### **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: <u>carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Ac</u>

#### 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: <u>carleton.ca/sexual-violence-support</u>

#### **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: <u>https://carleton.ca/registrar/academic-integrity/</u>.

#### **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 <u>bcom@sprott.carleton.ca</u> or at <u>bib@sprott.carleton.ca</u>.

#### **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 <u>https://carleton.ca/its/get-started/new-students-2/</u>

#### **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 <u>a number of actions you can take</u> 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 <u>COVID-19 Mask Policy</u>, 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 <u>cuScreen</u> 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 <u>University's COVID-19 website</u> and review the <u>Frequently Asked Questions (FAQs)</u>. Should you have additional questions after reviewing, please contact <u>covidinfo@carleton.ca</u>.