



**Carleton**  
UNIVERSITY

**SPROTT**  
SCHOOL OF BUSINESS

**CARLETON UNIVERSITY  
SPROTT SCHOOL OF BUSINESS  
BUSI3402 A  
WINTER 2020/2021  
SYSTEMS ANALYSIS AND DESIGN**

**REVISED (2021-01-03)**

**Instructor: Samira Farivar**  
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**TA: TBD**  
**Office Hours: TBD**  
**Tutorial Sessions: TBD**  
**Email: TBD**

**Modality: \*Online (24 hrs. asynchronous and 12 hrs. synchronous)**

**Pre-requisites & precluded Courses:**

Prerequisite(s): one of BUSI 2400, COMP 2404, or SYSC 2004 (with a grade of C or higher).

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**Course Description:**

Methods of analysis of computer-based information systems. The systems development life cycle, planning, analysis, design, implementation, and maintenance. Structured and object-oriented methods will be used. Use of a CASE tool.

This course introduces the concepts, skills, methodologies, techniques, and tools essential for the successful development of information systems. Through class discussion, hands-on assignments and team project, students will learn methodologies to realize business, system, and user requirements and will understand tools help in translating requirements into information systems which will support organizations' strategies.

### **Learning Outcomes:**

This course covers basic knowledge and practical skills of systems analysis and design. Students will learn:

- The importance of systems analysis and the role of system and business analysts
- Different phases of system development lifecycle (SDLC)
- Requirement analysis using structured and object-oriented approach
- System architecture, user interface and data design
- Managing system support and security

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

**Required:** Course lectures uploaded on CU Learn

**Recommended Textbooks** (available to purchase from bookstore):

1. Dennis, A. Wixom, B. H. Roth, R. M., *Systems analysis and Design*, 7th Edition, 2019
2. Scott Tilley, *Systems Analysis and Design*, 12th Edition, 2019
3. Satzinger, J. W. Jackson, R.B. Burd, S.D., *Systems Analysis and Design in a Changing World*, 7th Edition, 2016

### **Other Required Materials:**

Webcam, microphone for recording group presentations.

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

Your final grade will be composed of the following:

- ✓ **Four Individual Assignments 20%**
  - Assignment 1: Preliminary investigation and Requirement Gathering- Due Date by Jan. 30<sup>th</sup>
  - Assignment 2: System Analysis (Data and Process Modeling)- Due Date by Feb. 9<sup>th</sup>
  - Assignment 3: System Analysis (Object Oriented Modeling)- Due Date by Feb.22<sup>nd</sup>
  - Assignment 4: System Design- Due Date by March 29<sup>th</sup>
- ✓ **Midterm Exam 25%-** Date: Feb. 23<sup>rd</sup> \*
- ✓ **Group Presentation 30%-** Due Date by April 13<sup>th</sup>
- ✓ **Final Exam 25%-** Date: TBD

\* Students should notify the instructor in advance if they are not able to take the midterm (with a valid excuse). In this case, a deferred exam (as per the university's guidelines) will be scheduled.

There is a CU Learn site for this course. All expected deliverables for this course are expected to be submitted through the site. You will find your feedback there as well. It is important that you visit the site regularly to stay on top of the course's expectations. When communicating with the TA or the instructor, please use the mail service associated with the course or include in your message the course number if using a different mail service.

### Course Schedule:

Session	Date	Topic
1	Jan.12	Introduction to Systems Analysis and Design
2	Jan. 19	Part 1: System Planning Phase Analyzing Business Cases- Managing Systems Projects
3	Jan. 26	Part 2: System Analysis Phase Requirement Analysis- Use Case Analysis
4	Feb.2	Part 2: System Analysis Phase Data and Process Modeling
5	Feb. 9	Part 2: System Analysis Phase Object Oriented Modeling
	Feb. 16	<b><i>Reading Week – No lecture</i></b>
6	Feb. 23	<b><i>Midterm Exam Week</i></b>
7	March 2	Part 3: System Design Phase Move to Design- Development Strategies
8	March 9	Part 3: System Design Phase Architecture Design
9	March 16	Part 3: System Design Phase Data Design
10	March 23	Part 3: System Design Phase Interface Design
11	March 30	Part 4: System Implementation Phase Transition to New System
12	Apr. 6	Part 5: System Support & Security

		Managing System Support and Security
13	April 13	<i>Group Presentation Submission</i>

**\* Note:** While every attempt will be made to keep to the schedule listed above, unforeseen circumstances may necessitate modifications throughout the semester

### 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, 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](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](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/>

**Course Calendar description from the 2020/2021 University calendar:**

WINTER  
TERM 2021

January 4,  
2021      Deadline for course outlines to be made available to students registered in winter term courses.

January 6,  
2021      University reopens.

January 11,  
2021      Winter term classes begin.

January 25,  
2021      Last day for registration for winter term courses.

Last day to change courses or sections (including auditing) for winter term courses.

Graduate students who have not electronically submitted their final thesis copy to the Faculty of Graduate and Postdoctoral Affairs will not be eligible to graduate in winter 2021 and must register for the winter 2021 term.

January 22-  
24, 29-31,  
2021      Fall term deferred final examinations will be held.

January 31,  
2021      Last day for withdrawal from winter term and winter portion of fall/winter courses with full fee adjustment. Withdrawals after this date will result in a permanent notation of WDN on the official transcript.

February 1,  
2021      Last day for receipt of applications for admission to the Bachelor of Social Work degree program for the fall/winter session.

February 12, 2021	April examination schedule available online.
February 15, 2021	Statutory holiday. University closed.
February 16-19	Winter Break, no classes.
March 1, 2021	Last day for graduate students to submit their supervisor-approved thesis in examinable form to the department.
	Last day for receipt of applications to the Bachelor of Architectural Studies, Bachelor of Humanities, Bachelor of Industrial Design, Bachelor of Information Technology (Interactive Multimedia and Design), Bachelor of Journalism, Bachelor of Journalism and Humanities, and the Bachelor of Music degree programs for the fall/winter session.
	Last day for receipt of applications for admission to an undergraduate program for the summer term.
	Last day for receipt of applications for admission from candidates who wish to be guaranteed consideration for financial assistance (including Carleton fellowships, scholarships and teaching assistantships) administered by Carleton University. Candidates whose applications are received after the March 1 deadline may be considered for the award of a fellowship, scholarship or teaching assistantship (Graduate students only).
March 19, 2021	Last day to request Formal Examination Accommodation Forms for April examinations to the Paul Menton Centre for Students with Disabilities. Note that it may not be possible to fulfil accommodation requests received after the specified deadlines.
March 31, 2021	Last day for summative tests or examinations - or for formative and/or practical tests or examinations totaling more than 15% of the final grade - before the official examination period (see Examination regulations in the Academic Regulations of the



University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar).

April 1,  
2021

Last day for receipt of applications for admission to an undergraduate program for the fall/winter session from candidates whose documents originate outside Canada or the United States, except for applications due February 1 or March 1.

Last day for receipt of applications from potential spring (June) graduates.

April 2,  
2021

Statutory holiday. University closed.

April 14,  
2021

Winter term ends.

Last day of fall/winter and winter term classes.

Classes follow a Friday Schedule.

Last day for take-home examinations to be assigned, with the exception of those conforming to the Examinations regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar.

Last day for academic withdrawal from fall/winter and winter term courses.

Last day for handing in term work and the last day that can be specified by a course instructor as a due date for term work for fall/winter and winter term courses.

April 15,  
2021

No classes or examinations take place.

April 16-27, 2021	Final examinations in winter term and fall/winter courses may be held. Examinations are normally held all seven days of the week.
April 27, 2021	All take-home examinations are due on this day, with the exception of those conforming to the Examinations regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar.
May 1, 2021	Last day for receipt of applications for undergraduate internal degree transfers to allow for registration for the summer session.
May 14, 2021	Graduate students who have not electronically submitted their final thesis copy to the Faculty of Graduate and Postdoctoral Affairs will not be eligible to graduate in spring 2021 and must register for the summer 2021 term.
May 14-26	Fall/winter and winter term deferred final examinations will be held.
June 1, 2021	Last day for receipt of applications for admission to an undergraduate program for the fall/winter session except for application due February 1 or March 1 or April 1.
June 15, 2021	Last day for receipt of applications for undergraduate degree program transfers for the fall term.