



Introduction to Supply and Operations Management BUSI 2301A

Fall 2026

Professor: Shaohan Alan Cai
Phone: (613) 520-2600 ext 2453
Email: Alan_Cai@carleton.ca
Office: 6054 Nicol Building
Office hours: Online or in my office by appointment
Zoom meeting ID: 641 589 5727
Course meets: Thursday, 2:35PM -5:25 PM

Textbook: WJ Stevenson, M Hojati, & Cao, J. 2024, Operations & Supply Chain Management, 8th Ed, McGraw-Hill Ryerson, Toronto. ISBN: 1264855877.

* In order to stay updated with important notifications and announcements from Carleton University, please download the Carleton University App. This will ensure you receive timely information regarding your courses and other university-related updates throughout the term.

[Undergraduate Calendar Description](#) (from the [2026/2027 University Calendar](#))

Concepts, models, and managerial issues in planning, designing, operating and controlling systems across supply chains for the provision of goods and services. Emphasis on basic ideas and tools.

<https://calendar.carleton.ca/undergrad/courses/BUSI/>

Prerequisites

Second year standing. Restricted to selected Sprott programs.

Precludes additional credit for BUSI 3300 (no longer offered)

Course Description

Operations Management (OM) deals with the management of systems that provide goods and services to customers. This function exists in all industries, including manufacturing, retail distribution, and government services. The goal of OM is to provide *value* to the customer via the pursuit of *efficiency* and *effectiveness*. In a broader sense, OM is also a set of concepts and tools that can be useful in the *management* of the *operations* of any organisation. Since operations are at the core of any business (without it, there is no business!), OM is an essential area of management study.

The objective of this course is to provide an introduction to the field of OM. It will give a survey of the main OM issues and the key concepts & tools for dealing with them. It is intended to provide a basic exposure for those who will be specialising in other business areas, and to serve as a first step for those wishing to do further studies on this topic. Since OM in the real world is in frequent contact with other business functions such as marketing and finance, this course will draw on terminology and concepts from these fields.

Class participation

The instructor will give multiple choice, short answer, and the calculation questions during lecture. Each time the students submit answer through Socrative, the student will receive one class participation point (regardless the correctness of the answer). The students need to receive at least 70% of the participation points in order to get full participation mark (10% of the total grade). For example, if the instructor gives 50 questions throughout the semester, the students need to answer $50 \times 70\% = 35$ questions in order to get full participation mark.

Participation bonus

The instructor assigns bonus points to the participation. For short answer questions, the students who submit answers through Socrative will get 1 bonus point each time. For multiple choice and the calculation questions, the students who submit correct answer through Socrative will receive 1 bonus point.

1 bonus point is equivalent to 0.2% of the final exam grade. You can use the bonus points to add a Maximum of 10% to your final exam grade.

Quiz

There will be three in-class quizzes given during the semester. The quizzes are close book. You should complete the quizzes by yourself.

Homework

There will be homework given during the semester to enable each student to practice the techniques and tools being taught. For each chapter, homework is given at the last slider for the chapter (which could be found on the course

Brightspace). The students do not need to turn in their homework. The solutions of the homework are available on the course Brightspace.

Final Exam

The final examination will be completed and submitted online. It will be non-cumulative and will focus only on topics not covered in the three quizzes. Students should expect both quantitative and qualitative questions.

The examination will be posted in the **Final Exam** section of Brightspace. Please note that final exam in this course uses a remote proctoring service provided by Scheduling and Examination Services (SES). SES may use **CoMaS**, the University's automated e-proctoring software, to help maintain the integrity of the examination process. More information is available at <https://carleton.ca/ses/e-proctoring/>.

The University will announce the date and time of the final examination. The Scheduling Office is responsible for determining students' eligibility for a deferred final examination.

Calculator

For the Quiz and the Final exam, only suitable calculator is the *Texas Instruments BA II Plus*.

Deferred quiz/examination

Deferred examinations are normally held on Mondays at 7:15 a.m. If the Monday falls on a statutory holiday, the deferred examination will typically be held on Tuesday at 7:15 a.m.

The deferred examination date will generally be determined as follows:

- * For an in-class test originally scheduled on Monday or Tuesday, the deferred examination will be held during the following Monday's deferral session.
- * For an in-class test originally scheduled on Wednesday, Thursday, or Friday, the deferred examination will be held during the second Monday following the original test date.

Students who require additional recovery time must notify the instructor as soon as possible so that an appropriate deferred examination date can be arranged.

If enrolment exceeds the capacity of a scheduled deferral session, the School Office will determine whether an additional session will be offered.

No deferred examination will be given, except for documented and acceptable reasons as defined by the university regulations. In such case, the deferred mid-term examination may include additional topics and must take place within two

weeks after the mid-term scheduled date. Failure to meet this requirement will lead to a mark of zero or a withdrawal from the course. The Registrar's Office will determine the student's eligibility for a deferred final examination. This request must be made at the Registrar's Office within five (5) days of the exam. However, students who do not obtain at least 50% average on their term work for the course (i.e. mid-term, and quizzes combined) may be refused by the instructor the privilege of obtaining a deferred final examination. In such case, a FND grade will be assigned to the student. For the exams, students are advised that exam papers (mid-term or final) will not be returned back to them after being marked. They will be available for consultation only at the instructor's office.

Grading

Class participation	10%
Final Exam	45%
Quiz 1	15%
Quiz 2	15%
Quiz 3	<u>15%</u>
	100%

Use of Generative Artificial Intelligence

This is a human-centered course. In this course, evaluation focuses on what you can do *without* AI assistance. While you are welcome to use AI tools to explore ideas, study, or clarify concepts, all submitted work must represent your independent thinking and original effort. Use AI for learning, not for producing graded submissions. Your understanding and reasoning—not AI output—will form the basis of assessment. Using AI for graded submissions constitutes an academic integrity violation.

Course Schedule

The following is a general outline of material to be covered during the semester. Note: the schedule is subject to changes in response to progress and opportunities that may arise in a given semester. Therefore, it is imperative for students to attend class and be aware of new developments in the course that may affect the scheduling of quizzes and tests.

Class Date	Subject	Note
2026/09/10	Introduction/Chapter 2-Competitiveness, strategy, and productivity	
2026/09/17	Chapter 3-Demand forecasting	
2026/09/24	Chapter 6-Process design and facility layout	
2026/10/01	Chapter 5-Strategic capacity planning /Chapter 4 -Product and service design /Quiz1	Quiz 1 covers Ch03 (forecasting)
2026/10/08	Supplement 5- Decision theory / Supplement 6-linear programming*	
2026/10/15	Chapter 11-inventory management	
2026/10/22	Chapter 8-Global location planning &Analysis/ Quiz2	Quiz 2 covers ch05 (Strategic Capacity Planning), S5 (Decision analysis) (bring a ruler to class)
2026/10/29	Fall break	
2026/11/05	Chapter 9- Quality management and six Sigma/ Chapter 10-Statistical quality control	
2026/11/12	Chapter 16-Job and Staff Scheduling/Quiz 3	Quiz 3 covers ch11(inventory)

2026/11/19	Chapter 15- Supply chain management and logistics	
2026/11/26	Chapter 12-Aggregate operations planning and master schedule	
2026/12/03	Chapter 13-MRP, DRP, and ERP	

Note: *. Supplements are available on Brightspace.

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

Program Learning Goal	Competencies Not Covered	Competencies Introduced (only)	Competencies Taught But Not Assessed	Competencies Taught and Assessed
CHECK (X) ONE PER ROW				
BC1 Knowledge <i>Graduates will be skilled in applying foundational business knowledge to appropriate business contexts.</i>				X
BC2 Collaboration <i>Graduates will be collaborative and effective contributors in team environments that respect the experience, expertise and interest of all members.</i>		X		
BC3 Critical Thinking <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>				X
BC4 Communication <i>Graduates will be effective and</i>		X		

<i>persuasive in their communications.</i>				
BI5 Global Awareness (BIB ONLY) <i>Graduates will be globally-minded.</i>				x

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:

<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 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

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

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: 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

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 or at 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.

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/>
-

