



TOMS 5302 P Operations Management

Winter 2026

Instructor	Asit Kaul
Email Address	asit.kaul@carleton.ca
Class Times	April 24 and 25, 2026, 8.35 am to 5.25 pm
Modality	In Person
Office Hours	By Appointment

Pre-Requisites & Preclusions:

Prerequisites: BUSI 5801

Preclusions: N/A

Course Description/Instructor's Statement

Carleton Calendar Description

The provision of services and goods to customers, with focus on efficiency, effectiveness, and productivity. Planning and control of processes involving products, workers, equipment, suppliers, and customers. Effects of variation and uncertainty on lead time, inventory, quality, and customer service.

Instructor's Description:

Operations management involves designing, operating, and improving systems responsible for creating a firm's products and services, with a core focus on creating customer value. This MBA-level course on operations management delves into the principles and practices necessary for effectively managing a company's operations. Given the limited time duration, the course will cover select topics to ensure students develop the essential skills and abilities to recognize and solve operations problems, discuss operations issues with staff and management, identify the necessary skill set for complex operations problem-solving, and comprehend the impact of operations decisions on other organizational functions. In particular, the following topics, some in-depth while others at the conceptual level, will be covered:

1. Creating Customer Value through Operations
2. Process Management
3. Inventory Management
4. Quality Management
5. Capacity Planning
6. Supply Chain Sustainability
7. Industry 4.0 Technologies

Course Learning Objectives:

1. Demonstrate comprehension of core concepts, principles, and practices of operations management in service and product organizations.
2. Evaluate and prioritize strategic operations management decisions by assessing competing priorities and cross-functional trade-offs to create customer value.
3. Apply knowledge of operations tools to plan, coordinate, and manage operations within an organization.
4. Articulate and analyze the impact of emerging technologies and sustainability in operations and supply chain management.

Required/Optional Materials & Prices

Krajewski, L. J., & Malhotra, M. K. (2025). *Operations management: Processes and supply chains* (14th edition). Pearson.

- PRICE: \$67.99 for eBook rental
(<https://www.pearson.com/en-ca/subject-catalog/p/operations-management-processes-and-supply-chains/P200000010427/9780138185060>)
- ISBN: 9780138185060
- Optional: Indicate if second-hand copies are permitted or if certain software is required.

To succeed in this course, you may choose any recent Operations Management textbook authored by the same individuals or combine chapters from different ones. The selected textbook should cover all the topics outlined in this course (as per the course outline) and the textbook edition should not be outdated, with 2022 or later editions considered acceptable. Additional readings or cases used in this course are either available on Brightspace or accessible through the library website.

Please purchase the textbook(s) from the campus bookstore in Nideyinàn (formerly the University Centre) or through the bookstore website: <https://carleton.ca/campus-services/the-bookstore/>.

Grading Scheme

Class Participation (Individual)	15%
Consulting Brief (Group)	15%
Industry 4.0 Review (Group)	35%
Final Exam (Individual)	35%
TOTAL	100%

Groups of 4 or 5 members each will be self-selected by the students for group assignments and shared with the instructor at least 2 weeks in advance of the sessions.

Important Dates to Note

Class Participation (Individual)	Each session
Consulting Brief (Group)	April 24, 2026
Industry 4.0 Review Presentation (Group)	April 25, 2026
Industry 4.0 Review Report (Group)	May 03, 2026
Final Exam (Individual)	May 03, 2026

University Academic Calendar: <https://calendar.carleton.ca/academicyear/>

Policies & Accommodations

<https://students.carleton.ca/course-outline/>

<https://carleton.ca/pmc/current-students/academic-accommodations/>



Stay updated with important notifications and announcements from Carleton University, by downloading the Carleton University App!

Additional Information on Deliverables and Grading

Each component of your grade will be assigned a percentage score. Your final course grade will be a weighted average of each of these components.

- **Class Participation (Individual) (15%):**

Each student is required to actively engage in class discussions in a constructive manner. Participation entails attentive listening, sharing opinions and knowledge, asking questions following group presentations, and providing constructive feedback professionally. Absenteeism, tardiness, or unwarranted disruptions during sessions will lead to a reduction in this section's score.

- **Consulting Brief (Group) (15%):**

In this assignment, each group will assume the role of an external consulting team engaged by a senior operations executive of a mid-sized organization experiencing declining operational performance. Using a short case provided in class, teams will be required to exercise professional judgment to frame the problem, evaluate competing operational priorities, and determine where further analysis would create the greatest managerial value.

This in-class assessment evaluates students' ability to think critically about operational issues in contexts where decisions must be made under conditions of uncertainty, time pressure, and incomplete information. The objective of this assignment is not to develop a solution, but to

demonstrate disciplined analysis, contextual understanding, and sound managerial judgment in advising senior leadership on where to focus attention.

A concise written consulting brief (1–2 pages; Times New Roman, 12-point font; double-spaced; one-inch margins) will be submitted at the end of the time allocated for this assignment during the class.

- **Industry 4.0 Review (Group) (35%):**

In this assignment, students will examine the practical application of Industry 4.0 technologies within operations and supply chain management through a real-world example, with an emphasis on operational and managerial judgment.

Industry 4.0 refers to the integration of advanced digital technologies such as Artificial Intelligence, Robotics, Internet of Things, Blockchain, Additive Manufacturing, and related systems into operational processes. While these technologies have the potential to reshape how organizations plan, execute, and control operations, their value depends heavily on context, implementation choices, and organizational readiness.

Each group will be assigned one Industry 4.0 technology by the instructor one week prior to the first session (after group details are received). Each group must then identify and analyze a real-world example of the implementation of the assigned technology within the context of operations or supply chain management.

Presentation (10%):

Each group will deliver a presentation of approximately 10-15 minutes, followed by a brief Q&A, during the second day (April 25, 2026).

The presentation should:

- Situate the technology within operations and supply chain management
- Describe the selected real-world use case
- Highlight key benefits and challenges

Groups should create a limited number of slides to support clarity and structure. Time will be allocated during the session for groups to work together and refine their presentations.

Report (25%):

Each group will submit a written report of 8–10 pages (excluding references and appendices) in APA 7 format (Times New Roman, 12-point font; double-spaced; one-inch margins).

Groups may adopt any appropriate structure for the report. However, it should cover the following key elements:

Technology Overview: An overview of the technology, focused on aspects relevant to its use within operations and supply chain management.

Operational Context of the Example: Description of the real-world example, including the specific operational or supply chain process in which the technology is applied (e.g., forecasting, quality management, maintenance, scheduling, inventory management).

Implementation Analysis: Analysis of how the technology was implemented, including organizational, technical, and operational considerations, as well as key benefits and challenges.

Critical Reflection: A thoughtful evaluation of the extent to which the technology created operational value in this context, including its limitations, risks, and broader managerial implications.

This report is due by May 03, 2026 (11.59 pm EST) in Brightspace.

Peer Evaluation: To foster equitable division of group work and encourage fairness, students are required to submit a confidential peer evaluation form. This evaluation will be used by the instructor to determine individual grades to be assigned to each group member for group assignments in this course. Peer evaluations are due in Brightspace by May 03, 2026 (11.59 pm EST) – same deadline as the Industry 4.0 report. Students who do not submit a peer evaluation form will incur a thirty-percentage points penalty for their individual score in group assignments.

- **Final Exam (Individual) (35%):**

The final exam will evaluate your understanding of the course materials, including topics covered in the textbook, assigned readings/cases, lectures, discussions, and in-class work. It will be available in Brightspace, where students must also submit their answers by May 03, 2026 (11.59 pm). This is an open-book exam, meaning you may refer to course materials and your notes. However, collaborating with other students and the use of AI tools is not permitted. More details about the exam will be shared in class.

Late Assignments:

To ensure fairness for all students, penalties will be applied to late assignments: Failure to submit an assignment on time will result in an initial penalty of five (5) percentage points, followed by an additional (2) percentage points per day thereafter. For example, an assignment that would normally merit a grade of 80% would receive a grade of 75% if submitted after the deadline on the due date, 73% if submitted the following day, and so on. Requests for extension will be considered in cases of illness, family emergency, or other exceptional circumstances.

Email Policy:

The best way to contact the instructor is to send an email. Please be sure to indicate the course number and section in your email's subject line, and your full name and student ID within the body of the email. In keeping with Carleton University policy, your @cmail accounts must be used for any email inquiries. The instructor will endeavour to answer your emails within 48 hours.

Use of Generative Artificial Intelligence:

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.

Contribution to Program Learning Goals ([MBA](#)):

Not Covered *Learning goal is not addressed in the course, or addressed only minimally.*

Introduced *Course introduces content related to the learning goal but does not focus on it OR activities included in the course serve to cultivate this skill incidentally.*

Taught but not Assessed *Course contributes explicitly and meaningfully to student achievement of the learning goal but is not the point where competency is formally assessed.*

Taught and Assessed *Select this option if the course has been designated by the MBA CRC as the point where achievement of the learning goal will be assessed.*

MBA Learning Goal	Not Covered	Introduced	Taught but Not Assessed	Taught <u>and</u> Assessed
MB1 Leadership and Collaboration <i>Graduates will be equipped for leadership and collaboration.</i>				✓
MB2 Communication <i>Graduates will be effective communicators</i>			✓	
MB3 Critical Thinking and Problem Solving <i>Graduates will be skilled in critical thinking and problem solving.</i>				✓
MB4 Functional Knowledge <i>Graduates will have functional knowledge of all areas of business.</i>			✓	
MB5 Global Business <i>Graduates will have an appreciation of the global environment of business.</i>		✓		

MB6 Ethical Reasoning <i>Graduates will be skilled in ethical reasoning and decision-making.</i>				✓
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COURSE SCHEDULE

	Topic/Agenda	Notes
April 24, 2026	Module 1 Creating Value through Operations Process Management (Chapters 1, 2) Module 2 Inventory Management (Chapters 9) Module 3 Supply Chain Sustainability (Chapter 15)	Pre-class work: Industry 4.0 Review Other: Consulting Brief for all groups due during the session <i>See details for both under the Deliverables and Grading section above</i>
April 25, 2026	Module 4 Quality Management (Chapter 3) Module 5 Capacity Planning (Chapter 5)	Other: Presentation for Industry 4.0 Review for all groups during the session <i>See details under Deliverables and Grading section above</i>
Other Deliverables	Industry 4.0 Report, Peer Evaluation Forms, and Final Exam due by May 03, 2026 (11.59 pm) in Brightspace.	

Note: The content and schedule in this course outline are subject to change at the instructor's discretion. Any changes will be communicated in class or via Brightspace.

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).

Recommended Calculator for 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. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, followership and other group skills. Group assignments are also an effective way to learn integrative skills for putting together a complex task. Your professor may assign one or more group tasks, assignments, or 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.

Peer Evaluation for Group Work

To deter social loafing and ensure fairness in grading, you will be asked to assess the contribution of your fellow group members. This information will be used when assigning the grade for the final project. The procedure is as follows: Each student should take 100 points and allocate those points to the various members of the group (including him/her/themself) to reflect the contributions made by each member. For instance, if there are four members in a group and everyone contributed equally, each individual would receive 25 points. Conversely, if an individual contributed relatively little, the remaining group members might allocate few points to that member. To ensure that these peer evaluation scores are reasonable and free from personal bias, you will be asked to provide a detailed written explanation for your point allocation.

Letter Grades:

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	F = Below 50
A = 85-89	B = 73-76	C = 63-66	D = 53-56	
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52	

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:

<https://calendar.carleton.ca/grad/gradregulations/>

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).

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

- **Pregnancy**

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: [Pregnancy Academic Accommodation Information - Equity and Inclusive Communities](#)

- **Religious Obligations**

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: [Academic Regulations for Students with Religious Obligations < Carleton University](#)

- **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. <https://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: [Sexual Violence Prevention & Survivor Support - Equity and Inclusive Communities](#)

- **Student Activities**

Carleton University recognizes the substantial benefits, to both the individual student and the

university, that result from participating in activities beyond the classroom experience. Reasonable accommodation will 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: <https://students.carleton.ca/course-outline/>

Academic Integrity:

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—are a serious academic offence, 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/>

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: <https://carleton.ca/csas/>

Other 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 can do so by visiting <https://carleton.ca/its/get-started/new-students-2/>