

**Commerce 2OC3  
Operations Management  
Winter 2023 Course Outline**

**Operations Management Area  
DeGroot School of Business  
McMaster University**

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***COURSE OBJECTIVE***

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The course aims at:

- developing an in-depth understanding of the set of operations management activities that creates value in the form of goods and services by transforming inputs into outputs.
- developing modelling and problem-solving skills useful for reducing operational inefficiency.
- gaining familiarity with common analytical tools necessary for solving operational problems.

The course combines theory, real-life examples/cases, modelling exercises, etc. to prepare students for applying operations management theory and methods to help organizations improve operational efficiency.

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***INSTRUCTOR AND CONTACT INFORMATION***

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**Class time & location:** see Mosaic  
**Dr. Yun Zhou**  
Course Instructor  
[zhouy185@mcmaster.ca](mailto:zhouy185@mcmaster.ca)  
Office: DSB 428  
Office Hours: TBA  
Tel: (905) 525-9140 x27549

**Teaching Assistants**

TA information & office hours to be announced on Avenue to Learn (A2L)

**Course website:** A2L

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***COURSE ELEMENTS***

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Credit Value: 3  
A2L: Yes

Leadership: No  
Ethics: Yes

IT skills: Yes  
Numeracy: Yes

Global view: Yes  
Written skills: Yes

Participation: Yes  
Evidence-based: Yes

Innovation: Yes  
Experiential: No

Group work: No  
Final Exam: Yes

Oral skills: No  
Guest speaker(s): No

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## ***COURSE DESCRIPTION***

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*Operations management (OM) is the science and art of planning the creation and delivery of goods and services to customers. Fundamental topics in operations management include project management, process management, quality management, demand forecasting, supply chain management, inventory management, revenue management and waiting line management. These days this field of study is subjected to changes and challenges, with an emphasis of making informed managerial decisions based on optimization and statistical models. This course will discuss the aforementioned topics in optimization- and data-driven approaches.*

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## ***LEARNING OUTCOMES***

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Upon completing this course, the students will be able to

- Develop a solid understanding of the role of operations management in manufacturing and service organizations
  - Identify the connections between operations management and the other parts of the organization
  - Apply optimization and statistical models to solve real-world business problems related to forecasting, production planning, inventory control, quality control, etc.
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## ***COURSE MATERIALS AND READINGS***

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### **Required:**

- Avenue registration for course related materials
- Main textbook: Operations Management: Sustainability and Supply Chain Management, Third Canadian Edition. Jay Heizer, Barry Render, Paul Griffin



- Package 1: Hard copy text  
ISBN 9780134838076
- Package 2: E-text (course id to be announced)  
ISBN 9780135234495

- Demand Prediction in Retail: A Practical Guide to Leverage Data and Predictive Analytics. Maxime C. Cohen, Paul-Emile Gras, Arthur Pentecoste, Ren-yu Chang. **Full-text e-book available through McMaster Library**

**Notes:**

1. The textbooks serve as references and provide details for the materials covered in the lectures. The lectures, lecture slides and other materials delivered by the instructor (such as practice problems) prioritize over the textbook for the purpose of preparing for the exams. Topics not covered during the lectures will not be tested in the exams or assignments. The lectures may cover some materials not included in the textbook.

2. The use of MyOMLab is **not** mandatory for this course.

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***COURSE OVERVIEW AND ASSESSMENT***

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Overview of course activities:

ACTIVITY	DELIVERY	DESCRIPTION	TOOL(S)
<b>Lecture Core Content</b>	In-person	In-person lectures	Top Hat for participation
<b>Tutorials</b>	In-person	1-hour sessions with TA; discuss course materials and cover suggested exercises	No participation marks
<b>Assessments</b>	See details in "Course Deliverables"		

***COURSE DELIVERABLES***

Your grade of the course will be the **higher** one between the two grades calculated from Schemes 1& 2 below.

**Scheme 1:**

Components	Weight
Assignments 1-4	5.5% × 4
Case assignment	6% × 1
Midterm	32% × 1
Final	40% × 1
Total	100%

**Scheme 2:**

Components	Weight
Class participation	5%
Assignments 1-4	5.5% × 4
Case assignment	6% × 1
Midterm	30% × 1
Final	37% × 1
Total	100%

**Class participation**

Class participation marks are based on *unannounced* exercises/quizzes in class.

**Exams: Midterm and Final**

Final and midterm are mandatory. *All concerns related to grades must be reported within 2 weeks of the posting of grades.*

Only the use of a McMaster standard calculator is allowed during midterms and final in this course. See McMaster calculator policy at the following URL:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/examinationindex.html>

## Midterm Exam

Midterms	Date	Time	Rooms
Midterm	Morning of Saturday March 4, 2023 (Tentative)	TBA	TBA

## Final Exam

The final exam will be held during the final exam period in April. The exact date and format will be determined by the Registrar's Office. The final exam will cover selected topics from the material covered up to the midterm, and will include all the material covered after the midterm. The selected topics from the first half of the course to be covered in the final exam will be announced on Avenue to Learn.

## Assignments

### Regular assignments

There will be 4 assignments throughout the semester. Assignments will be accessible through Avenue to Learn. There will be 4 assignments throughout the semester. Assignments will be accessible through Avenue to Learn. Assignment schedule will be announced shortly.

Each assignment is a *timed quiz* on Avenue to Learn. Students need to start the quiz between the start and end dates shown above; once a quiz starts, it needs to be submitted within 5 hours.

### Case Assignment

Students will work *individually* on a case assignment. The case will be posted and submitted on A2L. The due date will be announced shortly.

### On missed/late assignments

Missed assignments and exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. Late assignments will not be accepted.

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## COMMUNICATION AND FEEDBACK

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Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants. All students must receive feedback regarding their progress prior to the final date by which a student may cancel the course without failure by default.

- *For Level 1 and Level 2 courses, this feedback must equal a minimum of 20% of the final grade.*
- *For Level 3 courses and above, this feedback must equal a minimum of 10% of the final grade.*

Instructors may solicit feedback via an informal course review with students by Week #4 to allow time for modifications in curriculum delivery.

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### ***REQUESTING RELIEF FOR MISSED ACADEMIC WORK***

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In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar [“Requests for Relief for Missed Academic Term Work”](#) and the link below;

<http://ug.degroote.mcmaster.ca/forms-and-resources/missed-course-work-policy/>

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### ***ACADEMIC INTEGRITY***

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You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

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### ***AUTHENTICITY/PLAGIARISM DETECTION***

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**Some courses may** use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

**All submitted work is subject to normal verification that standards of academic integrity have been upheld** (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to [www.mcmaster.ca/academicintegrity](http://www.mcmaster.ca/academicintegrity).

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### ***COURSES WITH AN ON-LINE ELEMENT***

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The course will use on-line elements (e.g. email, Avenue to Learn (A2L), web pages, TopHat, MS Teams, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

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### ***ONLINE PROCTORING***

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**Some courses may** use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

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## **CONDUCT EXPECTATIONS**

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As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

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## **ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES**

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Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or [sas@mcmaster.ca](mailto:sas@mcmaster.ca) to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

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## **ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)**

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Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.



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## ***COPYRIGHT AND RECORDING***

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Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

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## ***EXTREME CIRCUMSTANCES***

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The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

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## ***ACKNOWLEDGEMENT OF COURSE POLICIES***

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Your enrolment in Commerce 20C3 will be considered as an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is the student's responsibility to read this course outline carefully, to pay attention to the announcements on A2L and in class during the term, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

**COURSE SCHEDULE**

**Commerce 2OC3  
Operations Management  
Winter 2023 Course Schedule (Tentative)**

<b>WEEKS</b>	<b>TOPIC</b>	<b>TEXT REFERENCE</b>
1	Introduction (Basic concepts and methods)	Chapters 1, 16
2,3	Project management	Chapter 3
4,5	Process analysis	Chapters 7 and 7s
5,6	Waiting line management	Quantitative module D Lecture materials on A2L
7	Quality Management and Control	Chapters 6 and 6s
8	Forecasting	Chapter 4 Selected materials from “Demand Prediction in Retail” by Cohen et al.
9,10	Inventory Management (EOQ model, newsvendor, etc.)	Chapter 12
11	Revenue management	Chapters 12, 13
12	Supply chain management	Chapters 11, 11s
12, 13	Additional topics in OM (short-term scheduling, etc.)	This part may or may not be included, contingent on the actual course progress

**Notes:**

1. The chapters/quantitative modules mentioned above refer to the corresponding parts in the main textbook.
2. Contingent on the course progress, the weekly schedule and the topic are subject to changes at the discretion of the instructor.