

20C3 – Winter 2022



Commerce 20C3 Operations Management Winter 2022 Course Outline

DeGroote School of Business McMaster University

COURSE **O**BJECTIVE

- To develop an understanding of the set of operations management activities that creates value in the form of goods and services by transforming inputs into outputs.
- To gain familiarity with common analytical tools necessary for solving operations problems.

INSTRUCTOR AND CONTACT INFORMATION

Sections C01-C04 See schedule in Mosaic

Dr. Yun Zhou

Instructor zhouy185@mcmaster.ca Office: DSB 428 Office Hours: TBA on Avenue to Learn (A2L) Tel: (905) 525-9140 x 27549 Class Location: See Mosaic

Teaching Assistants and their office hours

TBA on A2L

Course Elements								
Crec	dit Value:	3	Leadership:	Yes	IT skills:	Yes	Global view:	Yes
	A2L:	Yes	Ethics:	No	Numeracy:	Yes	Written skills:	No
Part	icipation:	Yes	Innovation:	Yes	Group work:	No	Oral skills:	No
Evidenc	e-based:	Yes	Experiential:	No	Final Exam:	Yes	Guest speaker(s):	No





COURSE DESCRIPTION

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.

LEARNING OUTCOMES

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.

COURSE MATERIALS AND READINGS

Required materials.

- 1. Avenue registration for course related materials
- http://avenue.mcmaster.ca

2. Textbook

Operations Management: Sustainability and Supply Chain Management, Third Canadian Edition Jay Heizer, Barry Render, Paul Griffin



- Package 1: Hard copy text (includes MyOMLab) ISBN 9780134838076
- Package 2: E-text (course id to access the e-text: zhou11611) ISBN 9780135234495

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Remarks:

1. The textbook serves as a reference and provides 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 <u>not</u> mandatory for this course.

COURSE OVERVIEW AND ASSESSMENT

Overview of course delivery components

Lectures

• In-person (C01-C04) or live sessions (C01)

Tutorials

• In-person (T02-T04) or live sessions (T01)

Evaluations

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

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%

COURSE **D**ELIVERABLES

Class participation

Class participation marks are based on *unannounced* exercises/quizzes in class. Students receive half of the credit by participating, and the remaining half based on the correctness of the answer.

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*. Missed exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF.

• Midterm Exam Schedule

Midterms	Date	Time	Location
Midterm	March 5, 2022 (Tentative)	ТВА	A2L (tentative)

<u>Final Exam</u>

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 <u>selected topics</u> 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 1-4

There will be 4 assignments throughout the semester. Assignments will be accessible through Avenue to Learn in the format of quizzes. Assignment dates will be announced through the announcement section on the course webpage on Avenue to Learn. Late assignments will <u>not</u> be accepted.





Case Assignment

Students will work *individually* on a case assignment. The case will be posted on A2L (time TBA). Late assignment will not be <u>accepted</u>.

COMMUNICATION AND FEEDBACK

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

REQUESTING RELIEF FOR MISSED ACADEMIC WORK

In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar <u>"Requests for Relief for Missed Academic Term</u> <u>Work"</u> and the link below;

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

ACADEMIC INTEGRITY

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 the student's 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

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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 <u>Academic Integrity</u> <u>Policy</u>, 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.

AUTHENTICITY/PLAGIARISM DETECTION

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 <u>www.mcmaster.ca/academicintegrity.</u>

COURSES WITH AN ON-LINE ELEMENT

The course will use on-line elements (e.g. e-mail, Avenue to Learn (A2L), McMaster Office365 sharepoint, etc.). Students should be aware that, when they access the electronic components of a course using some of these elements (such as A2L), 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 online 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.





ONLINE PROCTORING

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.

CONDUCT EXPECTATIONS

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 <u>Code of Student Rights & Responsibilities</u> (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.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

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

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

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the <u>RISO</u> policy. Students should submit their request to their

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Faculty Office normally within 10 working days of

the beginning of term in which they anticipate a need for accommodation <u>or</u> 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.

COPYRIGHT AND RECORDING

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.

EXTREME CIRCUMSTANCES

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.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in Commerce 2OC3 will be considered to be 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 your responsibility to read this course outline, 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 20C3 Operations Management Course Schedule

SCHEDULED COURSE TOPICS

WEEKS	Торіс	TEXT REFERENCE	
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 model D	
7	Quality Management and Control	Chapters 6 and 6s	
8	Forecasting	Chapter 4	
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	

Note: Contingent on the course progress, the weekly schedule and the topic are subject to changes at the discretion of the instructor.



