

Course Outline

1. COURSE INFORMATION				
Session Offered	Winter 2024			
Course Name	Operations Management			
Course Code	GENTECH 4OM3			
Date(s) and Time(s) of lectures	C01	Monday	08:30 - 10:20	MARC 266
	C01	Thursday	13:30 - 14:20	MARC 266
	C02	Tuesday	13:30 - 14:20	BSB 137
	C02	Friday	11:30 - 13:20	BSB 137
	C03	Tuesday	16:30 - 18:20	ABB 136
	C03	Thursday	11:30 - 12:20	ABB 136
Program Name	One of the following: Automotive and Vehicle Engineering Technology/ Biotechnology/ Automation Engineering Technology			
Calendar Description	This course addresses the management of operations at the strategic, tactical and operational levels. Emphasizing decisions required to successfully design, create and deliver goods and services in a globalized marketplace.			
Instructor(s)	Alyaa Abdelhalim	E-Mail: abdela21@mcmaster.ca Office Hours & Location: upon request		
TAs	Ali Raza Afzal	E-Mail: afzala15@mcmaster.ca Office Hours & Location: TBA		
	Deeya Tangri	E-Mail: tangrid@mcmaster.ca Office Hours & Location: TBA		
	Ibrahim Qureshi	E-Mail: quresi6@mcmaster.ca Office Hours & Location: TBA		
2. COURSE SPECIFICS				
Course Description	Operations Management is the profession that designs, plans, and operates production (and service) systems to achieve the organization's goals. Topics in this course are aligned to ten strategic decisions required to manage the operations function effectively. They include productivity, forecasting, supply chain management, inventory, resource planning, and process design.			
Instruction Type	Code	Type	Hours per term	
	C	Classroom instruction	39	
	Total Hours			39
Resources	Author & Publisher			Textbook Title
	Lee J. Krajewski, Manoj K. Malhotra, Larry P. Ritzman			Operations Management: Processes and Supply Chain
	William J Stevenson, Hyde Mottaghi, Behrouz Bakhtiari			Operations Management
	Jay Heizer , Barry Render			Operations Management

	<p>Other Books</p>	<p>While all the content is addressed in the lectures and materials available on A2L, exploring supplementary readings from Production and Operations Management books in any of McMaster Libraries can serve as additional resources for those interested!).</p>
	<p>Other Supplies</p>	<p style="text-align: center;">Source</p> <p>Casio calculator {McMaster approved model} Microsoft Excel®</p>
	<p>Software</p>	<p>1. Excel: For PC's: Excel 2010, 2013, 2016 or newer. For Mac's: Excel 2011, 2016, or newer. 2. Excel Solver add-in: Available in Excel versions on PC's and Mac's. (optional) Excel Data Analysis add-in: Available in Excel versions on PC's and in Excel 2016 on Mac's. 3. TreePlan: Excel add-in for building and analyzing decision trees. Available on Avenue > Content</p>
<p>Prerequisite(s)</p>	<p>GENTECH 3LS3 and registration in Level III or above of Automation Engineering Technology, Automotive and Vehicle Engineering Technology, or Biotechnology</p>	
<p>Corequisite(s)</p>	<p>NA</p>	
<p>Antirequisite(s)</p>	<p>NA</p>	
<p>Course Specific Policies</p>	<p>Lectures: It is recommended that students actively participate during class sessions by offering insight, comment, reinforcement, argument, contrary views, and answering questions (if applicable).</p> <p>Course Communications:</p> <ul style="list-style-type: none"> • It is your responsibility to check Avenue daily – everything you need is there, and any important announcements will be posted there. Set your home page to the news feed for the course. See the Course A2L Website for any updates. • We only respond to emails from students' McMaster email accounts. Ensure that your Mac account is activated and has space to receive emails. We reply to emails only once, and if it returns to us as "undeliverable mail," we do not attempt any further replies. We do not respond to emails asking questions to which the answer is readily available in the course outline or Avenue. <p>Quizzes: The online quizzes will be held every week, starting Friday at 6 pm and closing Thursday at 6 pm on Avenue to Learn. They will consist of multiple-choice and True or False questions to ensure you keep up with your course reading. I highly recommend studying the chapter material in-depth before completing the online quiz. The lowest quiz grade will be dropped automatically. NOTE: If an MSAF is submitted for a quiz, that quiz is considered a dropped quiz. There will be no make-up/deferred quizzes. Any collaboration, posting, or sharing of online quiz questions or answers with other students will constitute academic dishonesty.</p> <p>Midterm Exam: Online - restrictions and requirements are included when the midterm announcement is made. Format TBD. Please note that there are no deferred mid-term examinations in this course. Suppose, for any reason, a student misses a mid-term examination. In that case, the value of that</p>	

examination will be applied to a **cumulative** final examination (i.e., a missed mid-term exam will result in the cumulative final examination being weighted at 65% of the final grade).

Final Exam:
 The (non-cumulative) final exam will be written in person during the scheduled examination period. Format TBD.
 The student must check/verify Avenue timely that all in-class activities are logged. No adjustments for missing marks will be considered after the last day of class.

Departmental Policies

Students must maintain a GPA of 3.5/12 to continue in the program.

To achieve the required learning objectives, on average, B.Tech. students can expect to do at least 3 hours of “out-of-class” work for every scheduled hour in class. “Out-of-class” work includes reading, research, assignments, and preparation for tests and examinations.

Where group work is indicated in the course outline, such collaborative work is mandatory.

Cell phones, iPods, laptops, and other personal electronic devices (i.e., are prohibited from the classroom during class unless the instructor makes an explicit exception.

Announcements made in class or placed on Avenue are considered to have been communicated to all students, including those not in class.

The instructor has the right to submit work to software to identify plagiarism.

Week #	Starting Week	Topic	Quiz	Quiz Start Date
Week 1	January 8 th	Introduction to Operations Management		
Week 2	January 15 th	Demand Forecasting	Quiz 1	January 19 th
Week 3	January 22 nd	Financial Analysis & Strategic Capacity Planning	Quiz 2	January 26 th
Week 4	January 29 th	Process Design & Facility Layout	Quiz 3	February 2 nd
Week 5	February 5 th	Supply Chain Management I	Quiz 4	February 9 th
Week 6	February 12 th	Inventory Management	Quiz 5	February 16 th
Week 7	February 19 th	Reading Week		
Week 8	February 26 th	Aggregate Operations Planning & Master Scheduling	Midterm Exam: March 1 st	
Week 9	March 4 th	MRP & ERP	Quiz 6	March 8 th
Week 10	March 11 th	Supply Chain Management II	Quiz 7	March 15 th
Week 11	March 18 th	Linear Programming & Sensitivity Analysis	Quiz 8	March 22 nd
Week 12	March 25 th	Just-in-time & Lean Production Systems	-----	Good Friday
Week 13	April 1 st	Review Week	Quiz 9	April 1 st – April 3 rd
Week 14	April 8 th	Final Exam Recess Week	Final Exam: TBD	

Classes end: Wednesday, April 10th, 2023
 Final Examination Period: Friday, April 12 to Saturday, April 25
 All examinations MUST be written during the scheduled examination period.

Note that this structure represents a plan and is subject to adjustment term by term.
 The instructor and the University reserve the right to modify course elements during the term. The University may change the dates and deadlines for all courses in extreme circumstances. If either modification becomes necessary, reasonable notice and communication with the students will be given with an explanation and the opportunity to comment on changes.

3. ASSESSMENT OF LEARNING *including dates*	Weight
Participation	10%
Mini Quizzes	25%
Midterm	25%
Final Examination	40%
Bonus Work	{+bonus 2%}
TOTAL	100%

Percentage grades will be converted to letter grades and grade points per the University calendar.

5. LEARNING OUTCOMES

1. Explain how an operations strategy is a pattern of decisions about processes and supply chains that achieve specific competitive priorities.
2. Identify the connections between operations management and other functions of the organization.
3. Formulate appropriate solutions in forecasting, inventory, lean systems, capacity, scheduling, and resource planning.
4. Use computer software (i.e., Excel) and quantitative tools to make operational decisions.

6. COURSE OUTLINE – APPROVED ADVISORY STATEMENTS

ANTI-DISCRIMINATION

The Faculty of Engineering is concerned with ensuring an environment free of all discrimination. If there is a problem, individuals must contact the Department Chair, the Sexual Harassment Officer, or the Human Rights Consultant as soon as possible.

http://www.mcmaster.ca/policy/General/HR/Discrimination_Harassment_Sexual_Harassment-Prevention&Response.pdf

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. The 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 behavior can result in serious consequences, e.g. a 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, located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

The following illustrates only three forms of academic dishonesty: 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 the 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.

COURSES WITH AN ON-LINE ELEMENT

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, 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.

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.

COMMUNICATIONS

It is the student's responsibility to:

- Maintain current contact information with the University, including address, phone numbers, and emergency contact information.
- Use the University provided e-mail address or maintain a valid forwarding e-mail address.
- Regularly check the official University communications channels. Official University communications are considered received if sent by postal mail, by fax, or by e-mail to the student's designated primary e-mail account via their @mcmaster.ca alias.
- Accept that forwarded e-mails may be lost and that e-mail is considered received if sent via the student's @mcmaster.ca alias.
- Check the McMaster/Avenue email and course websites on a regular basis during the term.

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 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.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

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

REQUESTS FOR RELIEF FOR MISSED ACADEMIC TERM WORK

McMaster Student Absence Form (MSAF): 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”.

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 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. <http://www.mcmaster.ca/policy/Students-AcademicStudies/Studentcode.pdf>

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.

SCHEDULE OF ACTIVITIES

This lecture schedule is based upon current university and public health guidelines and may be subject to changes during the term. Any changes to the schedule or course delivery will be communicated on the course announcements section on Avenue to Learn. Please check the announcements prior to attending class.