



# OPM 7120 (A02/G02) (3.0 CH) Operations and Supply Chain Management Fall 2023

#### **INSTRUCTOR**

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Email: john.wilms@umanitoba.ca Class Time: Thurs. 2:30 – 5:45pm

#### **COURSE DESCRIPTION**

Operations and Supply Chain Management focuses on the management of processes that transform inputs into valuable outputs within supply chains. This case method course will allow students to learn systematic ways of seeing, thinking, and managing key related processes.

#### **COURSE OBJECTIVES**

The course has three related objectives. The first goal is to contribute to your general management understanding by exposing you to the fundamental operations and supply chain management issues. By the end of the course you should be able to do the following:

- Use operations and supply chain management's primary analytical tools and concepts.
- Identify the major components of the operations and supply chain systems.
- Identify, analyze, and propose workable solutions to operations problems.
- Analyze the important quantitative and qualitative factors in specific operating situations and make appropriate trade-offs between them.
- Apply appropriate techniques and concepts (to put theory into practice).
- Differentiate between critical/non-critical as well as short-term/long-term; and recognize the pros/cons of alternative operations-based solutions in practical situations. In short, develop judgment regarding operations decisions.
- Formulate an operations strategy consistent with an overall business strategy while taking into consideration the financial, marketing, and personnel goals and constraints.

The second objective is to cultivate critical thinkers and problem solvers. You should significantly improve your abilities in the following areas:

- Discover and clearly define the problem(s).
- State and analyze the causal sequence of circumstances that may be contributing to such problems;
- Generate and critically evaluate a series of plausible alternatives for resolving these problems;
- Decide on an optimal alternative or combination of alternatives
- Develop an implementation program and action plan that provides the highest probability of resolving the identified problem(s) and contributes effectively to the organizational objectives and strategy.

The third objective is to dispel the myths surrounding the OM discipline and its associated technologies. During your business career you may not be directly involved in managing an operations system, but you will deal with those who hold such responsibilities. For example, consultants and investment bankers, while not directly working

on a daily basis on a shop floor, are concerned with assessing the present, future or potential value of an organization's operations system. In this regard, this course will assist you in developing the following abilities:

- Discuss problems with operations and technical experts.
- Solve operations problems within your own jurisdiction.
- Identify the skills required in the people you must call on for assistance.
- Evaluate the impacts of actions taken in the operations and supply chain area for other parts of the organization and vice versa.

At the conclusion of this course, you should appreciate that this graduate course in operations and supply chain management is not simply a set of formulas and well-understood "nuts-and-bolts" techniques. Rather, it is about developing good judgement and gaining perspective in a management discipline that is strategically important for success in today's competitive global environment.

#### **COURSE FORMAT**

Before class, please sign into UofM's iClicker Cloud (for attendance/polling) and set up your Asper name cards so that they are visible to the instructor. Your opinions and your ability to express yourself are important to the entire class. In the MBA/ MSCM programs, many students have significant work experience and everyone's contributions are a significant source of learning for others. Our discussions will be based on the text, case readings and other sources. The OM text is an excellent reference source and contains much more material than we can cover in class.

The central repository for information about the class will be our OPM 7120 course page on UM Learn. For office hours, please email or speak to me in class to set up.

#### **COURSE MATERIALS**

**Text:** Stevenson, W.J., Hojati, M., Cao, J., Mottaghi, H., and Bakhtiari, B. (2021), *Operations Management*, 7th Canadian Edition: McGraw Hill Ryerson Ltd. (ISBN # 13: 978-1-26-032687-1)

**Case Reading Package:** Available from University of Manitoba's e-commerce website, under course materials for OPM 7120.

- 1. Go to the Ivey Publishing website at www.iveypublishing.ca
- 2. Log in to your existing account or click "Register" to create a new account and follow the prompts to complete the registration. If registering, choose the "Student" role.
- 3. Click on this link or copy into your browser: <a href="https://www.iveypublishing.ca/s/ivey-coursepack/a1R5coooooFvYXdEAN">https://www.iveypublishing.ca/s/ivey-coursepack/a1R5coooooFvYXdEAN</a>
- 4. Click "Add to Cart".
- 5. Go to the Shopping Cart (located at the top of the page), click "Checkout", and complete the checkout process.
- 6. When payment has been processed successfully, an Order Confirmation will be emailed to you immediately and you will see the Order Confirmation screen.
- 7. Once you have completed your order, click on your username on the top right --> Orders --> Purchases IMPORTANT: Access to downloadable files will expire on the course end date, so be sure to save a copy on your computer. The downloadable file is a PDF document that can be opened using Adobe Reader. This material is for your personal use only and is not to be shared, reproduced, or distributed in any form.

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#### **COURSE ASSESSMENT**

Student progress is assessed through five components:

Class Participation worth 10%
 4 Group Case Analysis Reports (5% each) worth 20%

Quiz (October 19) worth 10%Midterm Exam (November 9) worth 30%

• Group Project Report (due December 7) worth 30%

#### PARTICIPATION: ATTENDANCE & CONTRIBUTION (10%)

If you miss a class, you will not receive any participation credit for that class; there is no way to "make up" for the activities of a missed day. A grade of zero will be assigned to those classes, unless you have a valid reason. If you have a valid reason for your absence, I will then decide how to deal with the impact of missed classes on your final grade. Typically 1,2 or 3 marks is given for your contribution to each class discussion, and your total mark can contribute up to 10% of the available course mark.

Preparation for and contribution to classes are vital parts of the development of your managerial skills. These include: identifying, analyzing and solving problems; communicating ideas; using basic concepts and tools; and developing a managerial savvy. You are expected to develop these to the point where you can contribute freely, confidently, and positively to class discussions.

As the instructor, my role will be to guide discussions and aid your understanding of underlying OM concepts and their application. You should arrive at each class session (including the first session) having carefully read the assigned readings and case studies so that you can make active and informed contributions to class discussions. Generally, you may choose your moments. However, I may sometimes call on you for your contribution or I may include your name in a list of people from whom I expect to hear.

Examples of meaningful contribution include, but are not limited to, being involved in a discussion of assigned material, defending your point of view during a case discussion, asking a relevant question, suggesting an alternate viewpoint, redirecting our attention to something else in need of discussion, or being actively involved in in-class exercises and other activities. You do not have to have the "right answer".

Your class participation grade will be based on a daily assessment of your performance. Both the quantity and quality of your class contributions will be assessed. High participation marks will be assigned to students who participate consistently (throughout the course, multiple times per class) and meaningfully to class discussion.

### **GROUP CASE ANALYSES (20%)**

Business Cases (typically from Ivey Publishing or Harvard Business) will be discussed in class throughout the term. You are responsible for reading the case and coming to class prepared to discuss your assessment of the case along with pertinent issues and your recommendations for action. Following our class discussion, "Questions for Consideration" will be posted on UM Learn. Each group should submit a **Case Analysis** before the next class the following week (by 2:30 pm the following class day). The reports must aim at answering the questions through some sort of analysis (qualitative/quantitative) rather than merely providing a summary of the case. Reports should not be more than 3 pages (typed, single-spaced lines, font: Times New Roman 12, 1" margins) and a *pdf copy* should be uploaded by one designated group member to the relevant Assignment folder on UM Learn. The pdf file name should be in the format: 'Group #, Case Name, Date'





There are a total of 4 cases to be reviewed and analyzed during the course. The submitted case reports will be graded on a scale of o to 10. Late submissions will not be accepted. All group members will share the same grade, unless I notice evidence of slacking/unequal contribution by a group member.

Groups may be selected to discuss 1 or 2 of their case analysis reports. The assigned group(s) will be responsible for leading the discussion on their respective cases in class. The discussion will account for part of the participation mark of those group members involved in the discussion leadership. Absent group members will receive grade zero.

#### QUIZ (10%)

The quiz will take place in class on **October 19, 2023**. It will consist of a number of problem questions, primarily quantitative in nature.

#### MIDTERM EXAM (30%)

The midterm exam will take place in class on **November 9, 2023**. It is designed to check your understanding and knowledge of the assigned readings, cases, and text material. It may consist of different types of questions (e.g., quantitative problem, case scenario, short answer, or multiple-choice problems). The details of the exam will be discussed in class, as we approach the exam date.

#### GROUP PROJECT REPORT (30%)

Throughout the OPM 7120 class we will discuss many examples of operations management challenges in the workplace. The Group Project is an opportunity for students to reach out and explore an OM business process in the community. In essence, the project requires each group to select and analyze an actual operational process within a local company, identify suggestions for its improvement, and to implement and measure the impact of the change(s) on some aspect of the manufacturing or service provided by the organization. Projects will be evaluated based on a rubric which will be discussed in class.

Groups will need to submit an interim plan for their report by 2:30 pm on Thursday October 5, 2023. Elements need to include the company name, process to be examined, any potential areas of inquiry, and contact information for relevant individuals. Groups will upload their plan under the Assignment folder on UM Learn. Follow-up discussions may be scheduled with the instructor to discuss elements of your plan.

The Group Project Report is due at **8:30 am** on **Thursday, December 7, 2023**. All group members will share the same grade, unless I notice evidence of slacking/unequal contribution by a group member.

#### Final grades will be assigned as follows;

Cumulative Marks	Grade	GPA	Performance
90-100	A+	4.5	Excellent
80-89.99	A	4.0	Very Good
75-79-99	B+	3.5	Good
70-74-99	В	3.0	Satisfactory
65-69.99	C+	2.5	Marginal
60-64.99	С	2.0	Unsatisfactory
50-59.99	D	1.0	Unsatisfactory
49.99 and below	F	0.0	Unsatisfactory





NOTE: Class attendance is required. Missing more than 20% of this course due to absence from lectures may result in a failing grade. It is your responsibility to inform your professor, in advance if possible, of your absence and the reason for it:

- 1) if <u>medical</u>, self-declaration form must be submitted for an illness lasting 5 consecutive days or less https://umanitoba.ca/governance/governing-documents-students#self-declaration-for-brief-or-temporary-student-absences, no later than 48 hours after the end of the brief absence; a medical note from your physician must be submitted for an illness lasting more than 5 days;
- 2) if a <u>work commitment</u>, a signed letter on letterhead from your supervisor is required in advance, noting clearly the date(s) you must be away for your work commitment(s);
- 3) if for <u>student competitions</u>, an email from your Asper team coach must be received in advance indicating the dates you are away at competition.

The professor will then decide how to deal with the impact of the missed classes on your final grade.

#### OTHER INFORMATION AND REQUIREMENTS

**Peer Evaluation Form for group work:** At the end of the course, students are required to fill out a Peer Evaluation Form for the group work performed during the Project Report. This form is confidential and will give the students the opportunity to assess the performance of their groupmates.

**Deferments**: No extensions for case analysis reports, or the group project report will be provided. If you have an excused absence on the exam day, a deferred exam will be scheduled for you.

**Course materials:** The lecture notes will be posted on UM Learn after each session. Please check UM Learn regularly for course material, updates, and news.

Preparation for course sessions: You are expected to be fully engaged in the entire learning process. This means devoting time and energy to preparation before class, attending group meetings, listening to others during class discussions, and engaging in class discussions. Using the notes/information from others who have experienced the course material (including cases) in a previous semester or other venues is a violation of Academic Integrity.





# **TENTATIVE COURSE SCHEDULE**

Class: Date		Background Preparation Before Class: Text, Readings	Topic	
1:	Sept 21	Chapters: 1, 2 Classic papers: 'Process Fundamentals' & 'Capacity Analysis', 'Kristen's Cookie Company (Abridged)'	Introduction to Operations Management	
2:	Sept 28	Chapters: 5, 6	Strategic Capacity Planning, Process Design and Layout	
3:	Oct 5	Chapters: 11 (391- 419), 14 'Northwestern Memorial Hospital, Smoothing Material Flow through the Receiving Area'	Inventory Management, JIT and Lean  Plan for Group Project Due	
4:	Oct 12	Chapters: 3, 18 (731-744)	Demand Forecasting, Waiting Line Analysis	
5:	Oct 19	Chapter: 12	Aggregate Operations Planning and Master Scheduling Quiz	
6:	Oct 26	Chapters: 8, 15 'Fuyao Glass America: Sourcing Decision'	Location Planning, Supply Chain Management	
7:	Nov 2	Chapter: 13	Material Requirements Planning, Enterprise Resource Planning	
8:	Nov 9	'Sustainability at IKEA Group'	Midterm Exam	
		Reading Week		
9:	Nov 23	Chapters: 9 (308-333), 10 (350-368) 'Deutsche Allgemeinversicherung'	Management of Quality, Statistical Quality Control	
10:	Nov 30	Chapters: 16, 17	Staff Scheduling, Project Management	

- By Dec 7 at 8:30 am: Submission of Group Project Report Submission of Peer Evaluation Forms





#### **ACADEMIC REGULATIONS AND STUDENT SERVICES**

#### HUMAN ETHICS APPROVAL FOR DATA COLLECTION

As part of coursework, if you will be collecting data from people who are not students in this class, you must obtain Human Ethics approval from the UofM's Research Ethics Board (REB) prior to data collection. This applies to data collection such as surveys, interviews, focus groups, experiments, video recording, etc., where a respondent is solicited for participation.

If the entire class will be working on the same project, your instructor will apply for human ethics approval from the REB. If individuals or small groups of students will be working on different projects, it is the responsibility of the students to obtain approval (only one group member needs to apply). Your instructor will tell you whether s/he will be or you need to. When in doubt, please talk to your instructor.

Instructions and forms to apply for human ethics approval can be found at: <a href="http://umanitoba.ca/research/orec/ethics/quidelines.html">http://umanitoba.ca/research/orec/ethics/quidelines.html</a>

In most cases, you will be using the "Protocol Submission Form" which is under the "REB Forms - Fort Garry Campus" heading.

It can take up to six weeks to process human ethics applications and obtain approval. Therefore, plan early. Note that approval must be obtained prior to data collection and cannot be obtained during the data collection phase or retroactively. Violation can get you, your instructor, and the Asper School in serious trouble with the REB.

The following do not require REB approval:

- a) Projects where students are conducting the research on themselves during class time;
- b) Projects involving the use of records or information that is in the public domain, including the use of anonymous secondary data and surveys or questionnaires that have already been published;
- c) Projects involving the use of naturalistic observation where there is no reasonable expectation of privacy (i.e. public park).
- d) Practicum or job training projects where students are fully integrated into the organization's operational practices and are not conducting research;
- e) Projects where the intent is to use the information to provide advice, diagnosis, identification of appropriate interventions or general advice for a client;
- f) Projects where the intent is to develop skills which are standard practice within a profession (e.g. observation, assessment, intervention, evaluation, auditing); or
- g) Projects where the information gathering processes are part of the normal professional relationship between the student and the participants.

If you have any questions, please contact humanethics@umanitoba.ca or your instructor.

#### **UNCLAIMED ASSIGNMENT POLICY**

Pursuant to the FIPPA Review Committee's approved recommendations of August 15, 2007, all unclaimed student assignments will become the property of the faculty and will be subject to destruction six months after the completion of any given academic term.





#### **STUDENT SERVICES AND SUPPORTS**

The University of Manitoba provides many different services that can enhance learning and provide support for a variety of academic and personal concerns. You are encouraged to visit the below websites to learn more about these services and supports. If you have any questions or concerns, please do not hesitate to contact your instructor or the Graduate Program Office.

For Information on	follow this link
Course Outlines, Year-at-a-Glance, Concentrations, Textbooks, VW Dates and Final Exams	Asper Graduate Student Resources
Exam Rescheduling Policy - Please refer to Missing a Test/Exam on page 18 of the MBA Student Handbook	MBA Student Handbook
Help with research needs such as books, journals, sources of data, how to cite, and writing	<u>Library Resources</u>
Tutors, workshops, and resources to help you improve your learning, writing, time management, and test-taking skills	Writing and Learning Support
Support and advocacy for students with disabilities to help them in their academic work and progress	Student Accessibility Services
Copyright-related questions and resources to help you avoid plagiarism or intellectual property violations	Copyright Office
Student discipline bylaws, policies and procedures on academic integrity and misconduct, appeal procedures	Academic Integrity
Policies & procedures with respect to student discipline or misconduct, including academic integrity violations	Student Discipline
Students' rights & responsibilities, policies & procedures, and support services for academic or discipline concerns	Student Advocacy
Your rights and responsibilities as a student, in both academic and non-academic contexts	Your rights and responsibilities
Full range of medical services for any physical or mental health issues	<u>University Health Service</u>
Information on health topics, including physical/mental health, alcohol/substance use harms, and sexual assault	Health and Wellness
Any aspect of mental health, including anxiety, stress, depression, help with relationships or other life concerns, crisis services, and counselling.	Student Counselling Centre
Support services available for help regarding any aspect of student and campus life, especially safety issues	Student Support Case Management
Resources available on campus, for environmental, mental, physical, socio-cultural, and spiritual well-being	Live Well @ UofM
Help with any concerns of harassment, discrimination, or sexual assault	Respectful Work and Learning Environment
Concerns involving violence or threats, protocols for reporting, and how the university addresses them	Violent or Threatening Behavior





I.H. Asper School of Business, The University of Manitoba

It is critical to the reputation of the I. H. Asper School of Business and of our degrees that everyone associated with our faculty behaves with the highest academic integrity. As the faculty that helps create business and government leaders, we have a special obligation to ensure that our ethical standards are beyond reproach. Any misconduct in our academic transactions violates this trust. The University of Manitoba Graduate Calendar addresses the issue of academic misconduct under the heading "Plagiarism and Cheating." Specifically, acts of academic misconduct include, but are not limited to:

- o using the exact words of a published or unpublished author without quotation marks and without referencing the source of these words
- duplicating a table, graph or diagram, in whole or in part, without referencing the source
- paraphrasing the conceptual framework, research design, interpretation, or any other ideas of another person, whether written or verbal (e.g., personal communications, ideas from a verbal presentation) without referencing the source
- o copying the answers of another student in any test, examination, or take-home assignment
- providing answers to another student in any test, examination, or take-home assignment
- o taking any unauthorized materials into an examination or term test (crib notes)
- o impersonating another student or allowing another person to impersonate oneself for the purpose of submitting academic work or writing any test or examination
- o stealing or mutilating library materials
- o accessing tests prior to the time and date of the sitting
- o changing name or answer(s) on a test after that test has been graded and returned
- o submitting the same paper or portions thereof for more than one assignment, without discussions with the instructors involved.

Many courses in the I. H. Asper School of Business require group projects. Students should be aware that group projects are subject to the same rules regarding academic misconduct. Because of the unique nature of group projects, all group members must exercise extraordinary care to insure that the group project does not violate the policy on Academic Integrity. Should a violation occur on a group project, all group members will be held jointly accountable, no matter what their individual level of involvement in the specific violation.

Some courses, while not requiring group projects, encourage students to work together in groups (or at least do not prohibit it) before submitting individual assignments. Students are encouraged to discuss this issue as it relates to academic integrity with their instructor to avoid violating this policy.

In the I. H. Asper School of Business, all suspected cases of academic misconduct involving a graduate student (i.e. MBA, MFin, MSCM, MSc or PhD student) will be reported directly by the instructor to the Dean of the Faculty of Graduate Studies.

**AITOOLS** 

Al tools can be used to enhance learning and problem-solving skills, but they should not replace independent thinking and learning. Students must exercise critical thinking when using Al tools and acknowledge their use in academic work. Prohibited uses





include generating or completing academic work with AI tools without appropriate acknowledgement. Academic honesty is paramount, and students should accurately represent their individual effort and knowledge. Faculty will provide guidance on AI tool usage and incorporate discussions on AI ethics and academic integrity. Violations may lead to disciplinary actions, including academic penalties or suspension.





## **FACULTY BIOGRAPHY**

I.H. Asper School of Business, The University of Manitoba

#### John Wilms

Instructor in the Departments of Business Administration and Supply Chain Management, I.H. Asper School of Business

John Wilms is a Business Executive with over two decades of experience across a variety of industries. Throughout his career with IBM Canada, John developed experience in IT project management and organizational process improvement while working with internal and external clients in air freight logistics, procurement and the life sciences sector. John's interests in emerging technologies and healthcare led to consulting projects with hospitals and health systems across North America. These engagements mainly focussed on improving patient safety and hospital operations while protecting the integrity of confidential healthcare data. John led the strategic development and deployment of projects using Lean and KPI systems to; improve ED flow, reduce surgical wait-times, and use wireless networks deployed with sensors to track assets, perform geo -location mapping of potentially infectious equipment and remove costs from the supply chain.

Moving from IBM to lead a biotechnology startup in the cancer diagnostics field, John established partner sales channels and opened new markets across North America and Asia. In addition, he led the company's efforts to build a culture of continuous improvement, ensuring consistent quality processes for the collection and testing of patient tissue samples, and giving patients early warning of a deadly disease.

John has taught Project Management at numerous IBM locations across North America, and Sales Strategy in Hong Kong, Singapore and Indonesia. Currently he is an Instructor in the MBA and undergraduate business programs at the University of Manitoba. John has a BSc (Honours) from McMaster University in Hamilton, and an MBA from York University's Schulich School of Business, in Toronto.



