

SCM 7040 (G01/A01) (3.0 CH)  
LOGISTICS MANAGEMENT  
FALL 2023

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**TERRITORY ACKNOWLEDGEMENT**

The University of Manitoba campuses are located on original lands of Anishinaabeg, Cree, Oji-Cree, Dakota and Dene peoples, and on the homeland of the Métis Nation. We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of reconciliation and collaboration.

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**INSTRUCTOR**

Name:	<b>Robert Parsons</b>	Office Location:	Drake 645
Phone:	204-880-4287 (cellular)	Office Hours:	Virtual: 6 PM - 8 PM CDT/CST
Email:	<a href="mailto:robert.parsons@umanitoba.ca">robert.parsons@umanitoba.ca</a> or <a href="mailto:robertparsons@gmail.com">robertparsons@gmail.com</a>	Class Room:	Drake 539 (but capability if needed to use Cisco Webex via UM Learn)
		Class Time:	Monday 6:15 PM to 9:30 PM starting <b>September 18<sup>th</sup></b> , with last class <b>December 11<sup>th</sup></b> and no classes October 2 <sup>nd</sup> and 9 <sup>th</sup> November 13 <sup>th</sup> Theoretical concepts examination on <b>December 11<sup>th</sup>, 2023</b> .

**COURSE DESCRIPTION**

Logistics management represents a key component in the evolving field of supply chain management. It involves planning, implementing, and controlling the efficient, effective forward and reverse flow and storage of goods, services, and related information between points of origin and points of consumption in order to meet customer-requirements. This course provides a practical, management perspective of multiple areas of logistics, including: distribution, transportation, international logistics, inventory control, sustainable logistics practices, key performance indicators, supply chain finance, leadership in a supply chain role, and an introduction to logistics technology including RFID and ERP systems.

This course involves students from two different Stu Clark Graduate School programs at the I.H. Asper School of Business. These are students pursuing: Master of Business Administration (MBA), clustered in section G01; and Master of Supply Chain Management and Logistics (MSCM), clustered in section A01. All section will meet for lectures and participate together. The course combines an overview of up-to-date theoretical knowledge combined with practical applications relevant to current issues facing logistics professionals. A specific focus of this particular course is the major challenge now facing transportation and logistics, namely how to drastically reduce carbon footprints, while maintaining operations in an economically viable manner. The course combines diverse assessment items, including: major group-project with in-class presentation of results; five individual briefing-analysis assignments; two case-style submissions with in-class discussions; active participation in classes; and in-class concepts-examination assessing student's understanding of relevant theoretical knowledge.

## COURSE OBJECTIVES

On course completion, you should be able to understand:

- Concepts, terminology and methodologies associated with logistics management in a company or industry setting;
- How to analyze logistical decisions, including facilities locations, inventory and transportation, and understand how they impact performance of a firm, as well as the entire supply chain;
- How to evaluate strategies that can be undertaken to manage inventories, including timings and quantities for replenishments without adversely impacting availability;
- How logistics decisions can influence an organization and its financial outcomes;
- How to interpret and use analytics to streamline and simplify business processes; and
- How to identify and begin addressing significant, and emerging, issues to be faced in logistics into the future, including gaining practical experience as part of a real-world-oriented major project that potentially may be published (and included as part of your resume).

## COURSE MATERIALS

**Optional course textbook:** Langley, C.J., N.A. Novack, B.J. Gibson and J.J. Coyle. 2021. *Supply Chain Management: A Logistics Perspective*. Cengage, Boston, U.S.A.

A common issue for logistics is that it is so frequently comingled in discussions of broader supply chain management. This textbook is used as a guide, given that while it encompasses the broader subject, it employs logistics as a lens. It provides information useful for this specific field and covers relevant topics in roughly the same order as we will consider.

Materials from this textbook will be selectively employed. This text can be obtained through the University Bookstore, and if you plan to focus significantly on logistics in your career, it could represent a useful general reference book to retain.

Additional supplementary readings are also identified in the course outline and during lectures.

## COURSE ASSESSMENT

Student progress will be assessed as summarized in the following table:

Component	Worth
Briefing analysis written submissions	25 marks (i.e., 5 x 5 marks each)
Active participation in class activities	10 marks (throughout course)
Examination covering theoretical concepts	25 marks (during Lecture #10)
"Case-style" submissions and discussions	20 marks (i.e., 2 x 10 marks each)
Major group-project report submission	15 marks (due on December 18 <sup>th</sup> )
Major group-project class presentation	5 marks (during Lecture #9)
Total	100 marks

Details on specific components are provided as follows:

**Briefing analysis submissions** (Briefing #1 through Briefing #5 worth total of 25 marks):

- Maximum **2 pages** of text (12-point font), single spacing, emphasizing brevity.

- Inverted-pyramid communication format: starting with brief **Summary** section, including explicit recommendation(s); **Background** section, summarizing key factors; and **Analysis** section, including the rationale for a proposed recommendation or course of action.
- Include a minimum of **3 references**, that are **cited** in the document text, but noting references are not included in the page limit and can be on a separate page.
- As part of the class, you will be asked to briefly describe and discuss findings), with this separately towards the active participation component.
- Assignments for briefing analyses will be distributed one week before being due.
- You can work with other participants on the analysis of data that may be associated with the briefing, but the written submission must be your own work.
- Template Word document will be provided by the instructor, based on above structure (this will be in a folder on UM Learn).
- Given time-sensitivity, late submissions are not accepted without reason.
- These assignments deal with a range of practical issues today in logistics.
- Students are strongly cautioned to not employ AI tools like ChatGPT (see later).

**Case-style** submissions and discussions (Case #1 and Case #2 worth total of 20 marks):

- Cases represent an important instructional tool for management education. Two current issues are intended to be covered using case-style approaches, however, there are, unfortunately, no useful existing cases readily available dealing with these specific issues. As such, we will employ a case-style approach but not incorporating individual cases.
- Each case-style assignment will be distributed at least two weeks in advance of the written submission due date, also the date for discussion in-class.
- The assignment document will identify the issue, and pose six questions for students.
- Students for each will be specifically assigned two lists of academic and general industry articles, and will be required to select one from the list of academic articles and two from the list of general industry articles, i.e., your choice, and directly use information from the two selected articles to consider the various questions.
- As part of the class discussions, we will employ various sorts of round-tables to discuss the issues, as well as possible solution approaches, based on different perspectives.
- Written submissions documents maximum **6 pages** of text (12-point font), single spacing, intended as roughly one page maximum per question, with the three total selected articles referenced and cited in the text where employed.
- Each written submission worth up to **6 marks**, with in-class discussion for each worth up to **4 marks**.
- Given time-sensitivity, late written submissions are not accepted without reason.
- Students are again strongly cautioned to not employ AI tools like ChatGPT (see later).

**Active participation** (in class activities worth total of 10 marks):

- Attendance at classes will **not** be recorded, but active participation in individual classes will be monitored and recorded toward grade contribution.
- Precise methods for assigning scores on this assessment item will be explained more later.
- Active participation provides important training for management activities, when under situations of uncertainty, managers are expected to step forward to articulate decisions and their rationales.

**Concepts examination** component (worth total of 25 marks) will be:

- Undertaken in-class during the first part of Lecture 10, on Monday December 11th, 2023, starting at 6:15 PM CST, with 2.0-hour duration (somewhat over one-half of class time).
- Closed book, with no external communications permitted (no cell-phone or Google searching).
- Examination structure more like a mid-term but scheduled at the end of term.
- Intended to cover the major theoretical concepts presented in the course.
- Detailed information will be provided in advance regarding administration of the exam and associated restrictions.

**Major group project written submission and group presentation (Analysis Report) (worth 20 marks):**

- The major project involves preparation of an analysis report, with students assigned (relatively randomly) to address a timely problem facing logistics firms on how to realistically address carbon footprints.
- Team formation will be undertaken during Lecture 2, which is on Monday September 25, 2023.
- Overall project topic assignments will be finalized by Wednesday September 27, 2023, with everyone in the class notified via UM Learn. This will allow teams to begin working on this aspect over the next two-week hiatus from classes due to two consecutive statutory days.
- Each team will work together to prepare a major project final report, one for each topic.
- Format of the report involves more standard format, with the following sections to be included: **Title** page, including report title, student name(s) and student number(s); **Summary** section, briefly summarizing the work and results; **Introduction** section, identifying the issue being evaluated; **Background** section, describing relevant information, and qualitatively what may be important regarding the subject being evaluated; **Methods** section, describing important assumptions, and methods employed for quantifying results and for analysis; **Results** section, describing what was found, in particular the quantitative results; **Conclusions** section, outlining the conclusions of the work, including identifying aspects that may be of greatest importance; and **Reference** section, documenting literature cited in the report using a consistent format.
- Report should use 12-point font and be single-spaced, and must have a minimum of **10 pages**, but should not have a length greater than **20 pages**, excluding any figures, tables, or references.
- There should be a minimum of **10 cited reference sources**, not including assignment document.
- Citations and formatting of references should use a consistent approach. You are free to select whatever approach you wish, but noting it should be consistently used. One possible useful approach is APA, which is described later, but you are not required to use it.
- The group written submission is worth up to 15 marks for each student, and all students within a team will share the same score.
- As part of the second last lecture (on Monday December 4<sup>th</sup>, 2023), each student team will make a presentation of key findings to the rest of the class, worth up to 5 marks per student.
- Final report submissions are due one week after the last class, on Monday December 18th, 2023 at 6:15 PM CST. Late submission is permitted, but there is a penalty for being late (see later).
- **Bonus Opportunity:** After the end of the course, it is intended by the instructor to bundle results found by students into brief overall report(s), or for article(s) such as for the site Conversation Canada (<https://theconversation.com/ca>). The intent is to be "published" on-line through a suitable and academically valid venue, with the instructor as the lead author and all participating students included in the list of authors. The instructor first did this in 2017 in a different class on Sustainability Economics (IDM 7090 G05), specifically regarding electric

transit buses, with a compendium report on externalities made public through the auspices of the Canadian Urban Transit Research and Innovation Consortium, CUTRIC at the site:

<https://cpb-ca-ca.wpmucdn.com/www.rrc.ca/dist/6/47/files/2013/11/UofM-AsperMBA-2017-EBus-Externalities-CBA-sgs15r.pdf>. A more recent student-based article from the same class

but in 2022 was printed on Conversation Canada, available at the site:

<https://theconversation.com/funding-electric-public-transit-can-reduce-emissions-and-address-economic-inequality-194434>.

The instructor will inform everyone involved if any report or article has been accepted to be published. If you have any concerns about being listed as an author in a proposed public report or article, please inform the instructor prior to the end of the course.

**Citations for Briefing Analysis, Case-Style and Major Project** submissions. As described in the section on Academic Integrity, it is important to properly cite documents used in your work. You are required to use a consistent citation and reference format approach within each individual document, but you are permitted to use whatever approach you want (and you can even change from one document to the next as long as each individual document is consistent throughout).

Properly and consistently citing sources, in particular properly formatting your references, can be tricky and time consuming. One suggested approach is the American Psychological Association (APA) format, which is very common, but you are not required to use it. There are many useful guidance internet-sites to help with APA (sites for others formats are also available). A few sites on APA are:

- <http://www.apastyle.org/>
- <http://libguides.csuchico.edu/citingbusiness>
- <https://owl.english.purdue.edu/owl/resource/560/05/>

Final grades will be assigned as outlined in the following table:

Cumulative Marks	Grade	GPA	Performance
93-100	A+	4.5	Excellent
85-92.99	A	4.0	Very Good
78-84.99	B+	3.5	Good
70-77.99	B	3.0	Satisfactory
65-69.99	C+	2.5	Marginal
60-64.99	C	2.0	Unsatisfactory
50-59.99	D	1.0	Unsatisfactory
49.99 and below	F	0.0	Unsatisfactory

The faculty requires a note regarding absences. As outlined earlier, the instructor will not record attendance but will indeed record participation in individual classes, this as a contribution toward the final grade for the course. That said, excessive absences will be noted, in particular if these are impacting performance. As described in faculty information below, there are a number of valid circumstances for missing classes, which should be noted to the instructor:

**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 **medical**, 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 **work commitment**, 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 **student competitions**, an email from your Asper team coach must be received in advance indicating the dates you are away at competition.

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

### **COURSE SCHEDULE**

Each class typically will be split approximately into two 1.5-hour parts with a 15-minute break:

**Part A:** 6:15 PM to 7:45 PM

**Part B:** 8:00 PM to 9:30 PM

Lecture notes for all class will be posted in advance to the UM Learn system in PDF format. Copyright materials will be removed, but links included in order for students to locate relevant copyrighted materials.

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### **Week 1 (Monday September 18<sup>th</sup>, 2023)**

#### **Part A Discussion:**

Introductions and course administration overview, and starting into course materials time permitting.

#### **Part B Discussion:**

Introduction of logistics, overview and discussion of the role and importance of logistics in supply chains, and supply chain management overall.

Suggested (optional) reading: Langley et al. (2021) Chapter 3 – main chapter.

Additional earlier article by Paul Larson on Supply Chain Management versus Logistics:

Larson, P.D. and A. Halldorsson. 2004. Logistics Versus supply chain management: An international survey. *International Journal of Logistics: Research and Applications* 7(1): 17-31.

<https://www.tandfonline.com/doi/abs/10.1080/13675560310001619240>

Will try to have PDF copy of document on UM Learn also in "Glossary" folder.

Supplemental overview of goods movement within Canada – involves modular course format:

Lightstone, A., T. Belony and J.F. Cappuccilli. 2021. Understanding Goods Movement in Canada: Trends and Best Practices. Transportation Association of Canada, Ottawa, Canada.

<https://www.tac-atc.ca/sites/default/files/site/doc/publications/2021/ptm-goodsmvmt-e.pdf>

(Article more oriented to regional planners, but succinctly overviews Canada's situation).

Additional readings (not required):

Council of Supply Chain Management Professionals. 2013. Supply Chain Management Terms and Glossary. Downloadable copy available through:

[https://cscmp.org/CSCMP/Educate/SCM\\_Definitions\\_and\\_Glossary\\_of\\_Terms.aspx](https://cscmp.org/CSCMP/Educate/SCM_Definitions_and_Glossary_of_Terms.aspx)

PDF copy of document on UM Learn in "Glossary" folder.

The Economist, Intelligence Unit. 2021. The Business Costs of Supply Chain Disruption.

[https://impact.economist.com/perspectives/sites/default/files/the\\_business\\_costs\\_of\\_supply\\_chain\\_disruption\\_gep\\_1.pdf](https://impact.economist.com/perspectives/sites/default/files/the_business_costs_of_supply_chain_disruption_gep_1.pdf)

Assignments:

**Briefing Analysis #1** assignment document will be distributed. This assignment requires students to review available literature and to outline, with justification, what they identify what are the three most significant issues impacting logistics in the short-term, i.e., within one-year ahead, not long-term.

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**Week 2 (Monday September 25<sup>th</sup>, 2023)**

**Part A Discussion:**

Briefing Analysis #1 in-class discussion of results, i.e., what did you identify, and broader implications?

Assignment of group project teams will be completed and outline of group project provided, with specific assignments for groups provided via email and UM Learn by Wednesday **September 27<sup>th</sup>, 2023**. This relatively early assignment of major group project teams and assignments is given the unfortunate extended time away from class due to two consecutive Mondays where university is closed, allowing teams to better make use of time. Time permitting, we can start lecture materials in first half too.

**Part B Discussion:**

Techniques of logistics system analysis (Appendix 3A)

Approaches to analyzing logistics systems (Appendix 3B)

Grid analysis method (Appendix 4A)

Supply chain and omni-channel network design (Chapter 4)

Suggested (optional) reading: Langley et al. (2021) Appendix 3A and 3B, and Chapter 4, including Appendix 4A.

Additional readings (not required):

The Economist. 2023. The manufacturing delusion (Leader) Subsidies and protection for manufacturing will harm the world economy. Reshaping the world's supply chains comes at a great cost. July 13<sup>th</sup> 2023 issue. <https://www.economist.com/leaders/2023/07/13/subsidies-and-protection-for-manufacturing-will-harm-the-world-economy>

The Economist. 2023. Economic policy (Finance and economics) The world is in the grip of a manufacturing delusion. How to waste trillions of dollars. July 13th 2023 issue.

<https://www.economist.com/finance-and-economics/2023/07/13/the-world-is-in-the-grip-of-a-manufacturing-delusion>

Graf, C., T. Lange, A. Seyfert and N. van der Wijden. 2021. Into the fast lane: How to master the omni-channel supply chain. Consumer-product and retail companies looking to jump into the fast lane of modern shopping will need to overhaul their operations to master the seven building blocks of an effective omni-channel supply chain. McKinsey and Company.

<https://www.mckinsey.com/industries/retail/our-insights/into-the-fast-lane-how-to-master-the-omnichannel-supply-chain#/>

Thompson, E. 2022. Escape from Model Land: How mathematical models can lead us astray and what we can do about it. Basic Books, New York, U.S.A.

Field Code Changed

Royal Statistical Society. 2023. Real world data science interviews: Erica Thompson, author, Escape from Model Land. <https://www.youtube.com/watch?v=RB5CQW8lbEo>

Assignments:

**Briefing Analysis #1** written submission is due by the time of the beginning of the class. The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, September 25<sup>th</sup>.

**Case-Style Assignment #1** document will be distributed before the end of class. This assignment deals with the important area of “last-mile” logistics. All students will be provided two lists of articles: **List-A**, consisting of recent relevant articles from academic literature; and **List-B**, consisting of recent useful articles produced by commercial firms or non-profit organizations. Students will be assigned one article from **List-A** and two articles from **List-B**, and are to select one further article of their choice that is not included on any of the lists. You are to use these articles, including citations, to address six posed questions. The six questions for the case-style analysis are provided in the assignment document.

**Group project** teams will be selected in the first half, with the specific topic for each group project team finalized by **Wednesday September 27<sup>th</sup>, 2023**, with finalized notification via UM Learn.

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### **Week 3 (Monday October 16<sup>th</sup>, 2023)**

#### **Part A Discussion:**

In-class round table discussion of six questions involved in Case-style Assignment #1. Everyone should be prepared to participate, noting marks for in-class discussions are separate from the written assignment itself.

Initial presentations and discussions of carbon footprint reduction, and the developing associated situation, as relevant to major project topics, including:

- Existing critical dependency of logistics and JIT on diesel fuel and its implications;
- Apparent expectations of and demands on the logistics industry from governments and stakeholders within Canada and internationally;
- Outline of how Canada’s emissions reduction targets for 2030 appear unrealistic and unlikely to be met, with potential outfall on industry.

#### **Part B Discussion:**

Sourcing materials (purchasing, procurement and strategic sourcing), including electronic sourcing and procurement, and procurement pricing (Chapter 5, including Appendix 5A).

Suggested optional reading: Langley et al. (2021) Chapter 5, including Appendix 5A on procurement pricing.

Additional readings (not required):

Michael Porter, specifically regarding material-sourcing in considering value chain.



Porter, M.E. 1985. The Competitive Advantage: Creating and Sustaining Superior Performance. Free Press, New York, U.S.A. (Note republished with a new introduction, 1998.)

<https://www.hbs.edu/faculty/Pages/item.aspx?num=193>

(Book available through University of Manitoba libraries: HD41. P668 1985)

Levine, B., with contributions from S. Sharma, U. Verma, and N. Goel. 2021. Reimagining the role of procurement to accelerate the next and beyond. EY (Ernst and Young).

[https://www.ey.com/en\\_ca/supply-chain/reimagining-the-role-of-procurement-to-accelerate-the-next-and-beyond?](https://www.ey.com/en_ca/supply-chain/reimagining-the-role-of-procurement-to-accelerate-the-next-and-beyond?)

Economist Impact (Intelligence Unit). 2021. Decoding confidence in the procurement function. Site to request copy of report

<https://impact.economist.com/projects/the-procurement-imperative/decoding-confidence-in-the-procurement-function-whitepaper/>

PDF report site provided to instructor (may not work for you)

<https://impact.economist.com/projects/the-procurement-imperative/pdfs/decoding-confidence-in-the-procurement-function-report.pdf>

Assignments:

**Case-style Assignment #1** submission is due at the beginning of the class. The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, October 16<sup>th</sup>, 2023.

**Briefing Analysis #2** assignment will be distributed before the end of class, and involves an application of the "grid method" to locate potential centralized distribution-centre for the Prairie region to handle all fresh-food imports from the U.S., also requiring specialized handling, i.e., cold (or cool) chains.

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**Week 4 (Monday October 23<sup>rd</sup>, 2023)**

**Part A Discussion:**

Briefing Analysis #2 in-class discussion of results, i.e., what was important?  
Order management and customer service.

**Part B Discussion:**

Continuing discussion of order management and customer services.  
Additional discussions more advanced materials regarding carbon footprint aspects of different modes of transportation, and warehousing aspects as relevant to major projects, including specific aspects unique to cold chains.

Suggested optional reading: Langley et al. (2021) Chapter 8.

Additional readings (not required):

The Economist. 2001. Keeping the customer satisfied (Leader): All customers are important, but some are more important than others.

<https://www.economist.com/leaders/2001/07/12/keeping-the-customer-satisfied>

The Economist. 2009. Customer relationship management (New/Idea): A way of designing structures and systems so that they are focused on providing consumers with what they want, rather than on what a company wants them to want

<https://www.economist.com/news/2009/09/18/customer-relationship-management>

The Economist. 2019. Can get some satisfaction (Business): How to keep your customers happy, one way is to ensure your workers are, too.

<https://www.economist.com/business/2019/08/22/how-to-keep-your-customers-happy>  
Harrison-Walker, L.J. 2019. The critical role of customer forgiveness in successful service recovery. *Journal of Business Research* 95: 376-391.  
<https://www.sciencedirect.com/science/article/abs/pii/S0148296318303680>

Assignments:

**Briefing Analysis #2** written submission is due at the beginning of the class The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, October 23<sup>rd</sup>.

**Briefing Analysis #3** assignment will be distributed.

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**Week 5 (Monday October 30<sup>th</sup>, 2023)**

**Part A Discussion:**

Briefing Analysis #3 in-class discussion of results, i.e., what was important?

Inventory management.

**Part B Discussion:**

Continuing on inventory management.

Suggested optional reading: Langley et al. (2021) Chapter 9, including Appendix 9A.

Additional readings (not required):

The Economist. 2022. The return of the inventory cycle (Finance and economics): Why companies have become more prone to over-ordering stock. June 2<sup>nd</sup> 2022 issue.

<https://www.economist.com/finance-and-economics/2022/06/02/the-return-of-the-inventory-cycle>

McCrea, B. 2021. Five inventory management tips for uncertain times: The global pandemic turned supply chains on end. Here are five inventory management strategies organizations can use now to both manage current volatility and optimize for the future. *Supply Chain Management Review Magazine* (October 12, 2021).

[https://www.scmr.com/article/five\\_inventory\\_management\\_tips\\_for\\_uncertain\\_times](https://www.scmr.com/article/five_inventory_management_tips_for_uncertain_times)

Assignments:

**Briefing Analysis #3** written submission is due at the beginning of the class The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, October 30<sup>th</sup>.

**Briefing Analysis #4** assignment will be distributed.

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**Week 6 (Monday November 6<sup>th</sup>, 2023)**

**Part A Discussion:**

Briefing Analysis #4 in-class discussion of results, i.e., what was important?

Distribution and order fulfillment, including warehousing.

**Part B Discussion:**

Continuing distribution and order fulfillment, including warehousing.

Suggested optional reading: Langley et al. (2021) Chapter 10, including Appendix 10A on materials handling.

Additional readings (not required):

The Economist. 2022. Is the warehouse business recession-proof (Business)? Nothing seems able to halt the big-box boom. September 22nd 2022 issue.

<https://www.economist.com/business/2022/09/22/is-the-warehouse-business-recession-proof>

The Economist. 2022. The bots in the warehouse (Science and technology): New robots—smarter and faster—are taking over warehouses, most picking jobs will be done by bots.

February 12<sup>th</sup> 2022 issue. <https://www.economist.com/science-and-technology/a-new-generation-of-smarter-and-faster-robots-are-taking-over-distribution-centres/21807595>

The Economist. 2014. The flow of things (China/logistics): For an export superpower, China suffers from surprisingly inefficient logistics. July 12<sup>th</sup> 2014 issue (from Shanghai and Suzhou).

<https://www.economist.com/china/2014/07/12/the-flow-of-things>

Gutelius, B. and N. Theodore. 2019. The Future of Warehouse Work: Technological Change in the U.S. Logistics Industry. Institute for Research on Labor and Employment, University of California, Berkeley, U.S.A. <https://laborcenter.berkeley.edu/pdf/2019/Future-of-Warehouse-Work.pdf> (Focus on work impacts but useful analysis of developing warehousing situation).

Assignments:

**Briefing Analysis #4** written submission is due at the beginning of the class The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, November 6<sup>th</sup>.

**Case-Style Assignment #2** document will be distributed. This assignment deals with the growing reconsideration of just-in-time (JIT) versus just-in-case (JIC), in particular at the nexus of attempting to rationally optimize positioning on a JIT versus JIC spectrum, i.e., noting both approaches have advantages and disadvantages.

All students will be provided two lists of articles: **List-A**, consisting of recent relevant articles from academic literature; and **List-B**, consisting of recent useful articles produced by commercial firms or non-profit organizations. Students will be assigned one article from **List-A** and two articles from **List-B**, and are to select one further article of their choice that is not included on any of the lists. You are to use these articles, including citations, to address six posed questions. The six questions for the case-style analysis are provided in the assignment document

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## Week 7 (Monday November 20<sup>th</sup>, 2023)

### Part A Discussion:

In-class round table discussion of six questions involved in Case-style Assignment #2. Everyone should be prepared to participate, noting marks for in-class discussion are separate from the written assignment itself.

Time permitting, we will begin discussion of transportation.

### Part B Discussion:

Transportation and associated rates.

Suggested optional reading: Langley et al. (2021) Chapter 11 on Transportation – Managing the Flow of the Supply Chain, including Appendix 11B on the basis of transportation rates.

Additional readings (not required):

Rodrigue, J.-P. 2020. Transportation Modes, Modal Competition and Modal Shift, Chapter 5.1 of *The Geography of Transport Systems*, Fifth Edition, Routledge, New York, U.S.A.  
<https://transportgeography.org/contents/chapters/transportation-modes-modal-competition-modal-shift/> (Useful synoptic overview of transportation modes, competition and modal shift). (Material can be freely used for educational purposes but not copied without permission)

The Economist. 2023. America's logistics boom has turned to bust (Business): A pandemic-era frenzy of hiring and investment has gone into reverse. August 10<sup>th</sup> 2023 issue.  
<https://www.economist.com/business/2023/08/10/americas-logistics-boom-has-turned-to-bust>  
Bakx, K. 2023. Diesel is cheaper than regular gas right now thanks to a 'freight recession': Prices at the pump have fallen more than 30 per cent since early winter. CBC News (Posted: May 09, 2023 3:00 AM CDT)  
<https://www.cbc.ca/news/business/bakx-diesel-freight-shipping-inflation-1.6836217>

Assignments:

**Case-style Assignment #2** submission is due at the beginning of the class. The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, November 20<sup>th</sup>, 2023.

**Briefing Analysis #5** assignment will be distributed.

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## Week 8 (Monday November 27<sup>th</sup>, 2023)

### Part A Discussion:

Briefing Analysis #5 in-class discussion of results, i.e., what was important?

Performance measures and financial analysis, as well as discussion of risk.

### Part B Discussion:

Information flows.

Suggested optional readings: Langley et al. (2021) Chapter 13 on Performance Measurement and Financial Analysis, and Chapter 14 on Managing Information Flows.

Additional readings (not required):

Gunasekaran, A., C. Patel and R.E. McGaughey. 2004. A framework for supply chain performance measurement. *International Journal of Production Economics* 87(3): 333-347.

<https://www.sciencedirect.com/science/article/abs/pii/S0925527303002561>

The Economist. Benchmarking (New/Idea). July 27<sup>th</sup> 2009 issue.

<https://www.economist.com/news/2009/07/27/benchmarking>

The Economist. 2020. Why real-time economic data need to be treated with caution (Finance and economics): The measures are not a proxy for overall economic activity. July 23<sup>rd</sup> 2020 issue. <https://www.economist.com/finance-and-economics/2020/07/23/why-real-time-economic-data-need-to-be-treated-with-caution>

(This article deals with overall economy data rather than company-specific but same deal).

The Economist. The future of ESG (Special report): Measure less, but better; It's the environment, stupid. July 21<sup>st</sup> 2022 issue. <https://www.economist.com/special-report/2022/07/21/measure-less-but-better>

(Specifically applies to sustainability-based ESG measures, and cautions)

Assignments:

**Briefing Analysis #5** written submission is due at the beginning of the class The assignment needs to have been loaded up to the available assignment folder on UM Learn or sent electronically to instructor via email or UM Learn with postmark no later than 6:15 PM, November 27<sup>th</sup>.

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**Week 9 (Monday December 4<sup>th</sup>, 2023)**

**Part A and Part B Discussions:**

Presentations of key findings of major project work by all student teams (random order).

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**Week 10 (Monday December 11<sup>th</sup>, 2023)**

**Part A:** Examination on theoretical concepts of logistics.

(This will last for 2.0 hours or 120 minutes and with extend partially into Part B of lecture)

**Part B (Remaining time) Discussion:**

Brief final general discussions on impending challenges and changes for supply chains, and concluding remarks.

Suggested optional reading: Langley et al. (2021) Chapter 15 on Strategic Challenges and Change for Supply Chains.

Additional readings (not required):

The Economist. 2023. Reinventing globalization (Leader) The tricky restructuring of global supply chains: Why too much resilience is dangerous. June 16<sup>th</sup> 2022 issue

<https://www.economist.com/leaders/2022/06/16/the-tricky-restructuring-of-global-supply-chains>

The Economist. 2023. Chain reaction (Briefing) The structure of the world's supply chains is changing: The pandemic and war in Ukraine have speeded up the transformation. June 16<sup>th</sup> 2023 issue. <https://www.economist.com/briefing/2022/06/16/the-structure-of-the-worlds-supply-chains-is-changing>

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#### **Deadline for submissions of Major Project reports**

The major project report is to be forwarded electronically to instructor via email or UM Learn, but must have email or UM Learn postmark of no later than 6:15 PM CST, Monday December 18, 2023. You can send earlier if desired. If the report is sent via email, the instructor will acknowledge receipt so that you have documentation as such.

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#### **Late submission penalty**

The major project report assignment can be submitted late, but a late penalty will be imposed, with deductions outlined in the following table:

<b>Major Project Late Submission</b>	<b>Mark Deductions</b>
Late within 1 day (24 hours) of final deadline	3 marks
Late within 2 days (48 hours) of final deadline	4 marks
Late within 3 days (72 hours) of final deadline	6 marks
Late within 4 days of final deadline	8 marks
Late within 5 days of final deadline	10 marks
Late within 6 days of final deadline	12 marks
Late within 7 days of final deadline	14 marks

It is important to note that late submission of any written case-style submission (Case #1 and Case #2) or briefing analysis (Briefing Analysis #1 through #5) is not permitted, without valid reason, given their time-sensitive nature.

At the same time note that individual values for briefing analyses are not large, such that if you miss one, it is not overly critical to success in the course.

For the case-style submissions, the value of the assessment is split between the written submission and the in-class discussion, as described earlier, and these are judged separately. As such, you should make sure to submit the written component, in the event you might need to miss the class, and still gain marks. Even if you were not able to submit the written component, you can still participate in the in-class discussion, and gain marks for that aspect.

#### **SUMMARY OF IMPORTANT DEADLINES**

Important written assignment submission and project deadlines, and exam date are summarized in the following table (This table will be provided separately as well in UM Learn):

<b>Assignment or Project Item</b>	<b>Deadline</b>
Briefing Analysis #1 written submission	Monday September 25 <sup>th</sup> 2023 at 6:15 PM CDT
Case-Style Assignment #1 written submission	Monday October 16 <sup>th</sup> 2023 at 6:15 PM CDT
Briefing Analysis #2 written submission	Monday October 23 <sup>rd</sup> 2023 at 6:15 PM CDT
Briefing Analysis #3 written submission	Monday October 30 <sup>th</sup> 2023 at 6:15 PM CDT
Briefing Analysis #4 written submission	Monday November 6 <sup>th</sup> 2023 at 6:15 PM CST
Case-Style Assignment #2 written submission	Monday November 20 <sup>th</sup> 2023 at 6:15 PM CST
Briefing Analysis #5 written submission	Monday November 27 <sup>th</sup> 2023 at 6:15 PM CST
Group Project presentations	Monday December 4 <sup>th</sup> 2023 (random order)
Concepts Examination (in-class)	Monday December 11 <sup>th</sup> 2023 (first 2 hours)
Group Project written submission	Monday December 18 <sup>th</sup> 2023 at 6:15 PM CST (Permitted late but with penalty applied)

## 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:

<http://umanitoba.ca/research/orec/ethics/guidelines.html>

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](mailto: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.

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

## ACADEMIC INTEGRITY

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:

- 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
- 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
- taking any unauthorized materials into an examination or term test (crib notes)
- impersonating another student or allowing another person to impersonate oneself for the purpose of submitting academic work or writing any test or examination
- stealing or mutilating library materials
- accessing tests prior to the time and date of the sitting
- changing name or answer(s) on a test after that test has been graded and returned
- 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.

### University of Manitoba Guidance on the use of AI Tools

AI 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 AI 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.

### Further Warning from Instructor on Perils of AI Tools

The instructor specifically cautions students about employing technologies like Chat-GPT or similar generative AI. The important reason is to protect you. As noted in international publications like *The Economist*\*, current generative AI tools, like Chat-GPT, do represent machine adaptive learning technologies but are typically "trained" merely using the general internet. As such, these tools end up reflecting largely just "what is being said on the wider internet" but without any per se curation or review of validity. As such, especially for more complex topics, as in this course, they tend merely to revoice what may be being said on the internet, including largely unreliable sources and chit-chat. Thus, while their outputs may sound highly convincing, they are frequently completely wrong. You do not want to be misled.

\* The Economist. 2023. Generative AI (Science and Technology). April 22<sup>nd</sup> 2023 issue.

Three sequential articles involved in same issue:

- (1) Large, creative AI models will transform lives and labour markets: They bring enormous promise and peril. In the first of three special articles we explain how they work  
<https://www.economist.com/interactive/science-and-technology/2023/04/22/large-creative-ai-models-will-transform-how-we-live-and-work>
- (2) How generative models could go wrong A big problem is that they are black boxes  
<https://www.economist.com/science-and-technology/2023/04/19/how-generative-models-could-go-wrong>
- (3) Large language models' ability to generate text also lets them plan and reason: What will come next?  
<https://www.economist.com/science-and-technology/2023/04/19/large-language-models-ability-to-generate-text-also-lets-them-plan-and-reason>

## FACULTY BIOGRAPHY

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

### **Robert V. Parsons, PhD, MBA, MSc, BSc**

Sessional Instructor, I.H. Asper School of Business

Dr. Robert Parsons has an eclectic background, both academically and in terms of work experience.

#### **Academic Background:**

Dr. Parsons holds technical degrees in Chemical Engineering (B.Sc. and M.Sc.) from the University of Calgary, and a doctorate in Bio-Systems Engineering from the University of Manitoba. The latter also involved a significant business-related orientation, i.e., looking at the development of a novel process to recover multiple high-value constituents from flax shive as feedstock; the latter representing a low-cost, high-volume agricultural processing waste uniquely available in Manitoba. He also holds a M.B.A., with distinction, from the Schulich School of Business at York University, Toronto, with a specialization in Business and the Environment. His background also has been strongly oriented to quantitative analysis using a variety of different techniques.

Dr. Parsons holds a Certification in Higher Education Teaching (C.H.E.T.) qualification from University Teaching Services at the U of M (now the Centre for Advancement of Teaching and Learning or CATL) since 2008, and has taught Sustainability Economics (IMD 7090 Go5) as part of Asper Graduate Programs since the inception of the course. More recently he has been teaching M.B.A., M.Fin., and M.S.C.M. students for the “boot-camp” mathematics course (MSCI 5110 Basic Quantitative Methods for Management), as well as Introduction to Supply Chain Management (SCM 2230 A02) for undergraduate students. He also earlier taught as part of the Certificate in Public Sector Management (C.P.S.M.) program under Extended Education.

#### **Professional Work Experience:**

For more than fifteen years, Dr. Parsons worked as an advanced energy and technology consultant with the Manitoba Government. He has been directly involved in a variety of novel technology areas, including electric and fuel cell cars and transit buses. For example, he was directly involved with the on-route demonstration of four second-generation electric buses begun in 2014 by Winnipeg Transit. Since 2017 he has authored more than eighteen op-ed style articles primarily relating to sustainability that have been published locally in the *Winnipeg Free Press*, and was a co-author of an op-ed article in the national journal *Policy Options*. Most recently in 2021, he had a paper accepted in the peer-reviewed journal *Sustainability*. Dr. Parsons has been extensively involved with heavy-duty logistics-oriented firms, primarily the trucking industry, regarding reduction of carbon footprints.

#### **Interesting Fact:**

In March 2011, directly as part of electric transit bus development and demonstration activities, Dr. Parsons was one of four Manitobans visiting in the Tokyo area of Japan, and was present when the Tohoku earthquake (and associated tsunami) struck. This is the most powerful earthquake ever recorded in Japan, and the fourth most powerful ever recorded in the world.