

OPM 7300 (G05/T23) (3.0 CH)
RECENT DEVELOPMENTS IN SUPPLY CHAIN MANAGEMENT
WINTER 2024

TERRITORY ACKNOWLEDGEMENT

The University of Manitoba campuses and facilities 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.

The University of Manitoba requires a generalized territory acknowledgement, but in many courses, such as this one, it is more important to actually discuss direct links to the course. Manitoba has the important distinction of having the highest proportion of citizens of indigenous background of all Canada's provinces, representing close to one in five Manitobans. As such, indigenous citizens are crucially important to the economic future of Manitoba as a whole. Very specifically, regarding this course, in the past for a period spanning roughly 350 years, First Nations and Métis peoples formed a central part of one of the most important supply chains in the world, a supply chain that was also significantly important for what became Manitoba. This supply chain also resulted in a variety of significant adverse impacts. The questions for all students to consider in advance are, what was that supply chain, and what did it involve? We will discuss these interesting points in class.

INSTRUCTOR

Name:	Robert Parsons	Office Location:	Drake 645
Phone:	Cellphone 204-880-4287	Office Hours:	Virtual: 6 PM - 8 PM CST, Tuesday or Thursday, or can arrange time
Fax:		Class Room:	Drake 539 (but still potential to use Cisco Webex via UM Learn)
Email:	robert.parsons@umanitoba.ca or robertvparsons@gmail.com	Class Time:	Monday 6:15 PM to 9:30 PM. Starts January 22th, with last class on April 1 st (no class February 19 th)

COURSE DESCRIPTION

This advanced-topics course covers supply chain management, and in particular focuses on important recent developments that span across areas of logistics, operations, purchasing, and even some aspects of marketing. Recent relevant developments that will be considered include: sustainability; digitalization; consumer logistics, specifically including food wastes; humanitarian logistics, highly relevant in today's circumstances; and the importance of risk identification and risk management. This course has been normally taught by Dr. Paul Larson, who is currently on sabbatical. For consistency this course's structure largely follows the topics and assessment approaches as used by Paul. Course delivery includes interactive lectures; small group discussions, including brief reporting; group sustainability evaluation

projects, including a written group report and presentation; and two individual assignments, each involving a written submission and a presentation.

This course involves students from two different Stu Clark Graduate School programs at the I.H. Asper School of Business. These involve students pursuing: Master of Business Administration (MBA), clustered in section G05; and Master of Supply Chain Management and Logistics (MSCM), clustered in section T23. All sections will meet for lectures and participate together as a single class. You will quickly note that this course has “a lot of moving parts!” There are a significant number of activities used in grading, i.e., about fourteen individual items. As such, significant planning, scheduling and execution are required from students to keep moving forward. In other words, the nature of the course itself mirrors operation of a supply chain.

COURSE OBJECTIVES

On course completion, you should gain:

- Understanding of variety (snapshot) of recent trends and emerging issues involving supply chains;
- Understanding of breadth of opportunities and concerns currently at play in the industry;
- Understanding of basic terminology that may be relevant for topics discussed;
- Enhanced skills in identifying and assessing both positive and negative aspects of emerging issues; and
- Enhanced skills in planning and managing supply chains into the future.

COURSE MATERIALS

There is no identified textbook for this course, nor any formal cases involved. The course does involve a diverse variety of readings (almost 50) that should at least be skim-read prior to respective lectures. Readings are numbered for ease of reference, and are summarized according to each applicable lecture as part of the Course Schedule section so that they are easier to locate and follow up.

COURSE ASSESSMENT

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

Component	Worth
Individual-oriented activities:	Worth total of 50 marks
Assessment report on supply chain management situation and recent development implications for selected organization	15 marks (Week 5)
Presentation to class on supply chain management situation and recent development implications for selected organization	5 marks (Week 5)
Assessment report on supply chain management situation and recent development implications for selected country	15 marks (Week 10)
Presentation to class on supply chain management situation and recent development implications for selected country	5 marks (Week 10)
Active participation throughout course	10 marks (through course)

Group-oriented activities:	Worth total of 50 marks
Group analyses on identified issues Total of seven (7) brief analyses	35 marks total (5 marks each see Schedule)
Group evaluation report on company sustainable development	15 marks (due April 8, 2024)
Group presentation on company sustainable development	5 marks (Week 9)
Total	100 marks

Details on specific assessment components are provided as follows:

Individual report on supply chain situation for company (Worth 15 marks):

- During the Week 1 lecture, each student will select and confirm a business, a non-profit or a government organization for investigation. For students who may miss this first lecture, the instructor will assign a suitable organization.
- Students must each select a different organization, which may not be an organization for whom they currently or have worked for in the past. The organization does not necessarily need to be headquartered in Canada, but must have some sort of active operations within Canada.
- The report is focussed on the organization, examining their current supply chain situation, with particular reference to recent developments in which the organization is actively involved, or that are significantly impacting the organization.
- Written assignment consists of a brief report involving a main body in the range of 3 to 5 pages (maximum) in length, or roughly 1,000 to 1,500 words, excluding references. The report should be single-spaced using at least 12-point font.
- Be sure to list all sources of information in a reference section at the end, using a consistent referencing approach (your choice but must be consistent), and use in-text citations in main body to give credit to those sources. References and exhibits do NOT count in page limit.
- The report should also include a brief summary at the start, involving roughly a paragraph.
- Assignment of marks will be out of 15 and based on Dr. Larson's 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Reports are due by end of day of the lecture during Week 5, i.e., no later than 11:59 PM on Monday February 26, 2024, either to UM Learn folder or via email.

Individual presentation to class on supply chain situation for company (Worth 5 marks):

- Presentations are to provide a brief synopsis of your findings from the above report for the rest of the class.
- Assignment of marks will be out of 5 and based on Dr. Larson's 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Presentations will be during the lecture for Week 5, on Monday, February 26th, 2024, starting at shortly after 6:15 PM.
- Each student will be provided 10 minutes, and time for one question from another student in the class (noting for other students, asking questions counts for Participation).
- Students must also send PDF version of presentation to instructor, with all presentation files then posted to UM Learn (0.5-mark deduction if not sent).

Individual report on supply chain situation for country (Worth 15 marks):

- During the Week 1 lecture, each student will select and confirm a country for investigation. For students who may miss this first lecture, the instructor will assign a suitable organization.

- Students must each select a different country. Certain countries are excluded: Canada, United States, India and People's Republic of China. Beyond these, students also may not select a country for which they currently hold a passport. Individual countries also must be selected, for example not the European Union as a whole.
- The report is focussed on the country, examining the current supply chain situation, with particular reference to recent developments or issues that are significantly impacting the country, including both domestic supply chains and international (export/import) logistics.
- Written assignment consists of a brief report involving a main body in the range of 3 to 5 pages (maximum) in length, or roughly 1,000 to 1,500 words, excluding references. The report should be single-spaced using at least 12-point font.
- Be sure to list all sources of information in a reference section at the end, using a consistent referencing approach (your choice but must be consistent), and use in-text citations in main body to give credit to those sources. References and exhibits do NOT count in page limit.
- The report should also include a brief summary at the start, involving roughly a paragraph.
- Assignment of marks will be out of 15 and based on Dr. Larson's 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Reports are due by end of day of the lecture during Week 10, i.e., no later than 11:59 PM on Monday April 1, 2024, either to UM Learn folder or via email.

Individual presentation to class on supply chain situation for country (Worth 5 marks):

- Presentations are to provide a brief synopsis of your findings from the above report for the rest of the class.
- Assignment of marks will be out of 5 and based on Dr. Larson's 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Presentations will be during the lecture for Week 10, on Monday, April 1st, 2024, starting at shortly after 6:15 PM.
- Each student will be provided 10 minutes, and time for one question from another student in the class (noting for other students, asking questions counts for Participation).
- Students must also send PDF version of presentation to instructor, with all presentation files then posted to UM Learn (0.5-mark deduction if not sent).

Individual student active participation throughout course (Worth 10 marks):

- Attendance matters, however, will not be recorded for this course.
- What counts is actively contributing to class discussions on reading and recent developments, asking suitable question of other students, and providing feedback to other students or groups.
- Upwards of 1 mark per lecture can be earned, with participation recorded by instructor, including:
 - Asking relevant questions or providing useful comments during lecture activities
 - Asking relevant question of another student making a presentation on either selected company (Week 5) or selected country (Week 10)
 - Providing individual feedback on the group presentation by another group they are not part of regarding sustainable development situation of their selected company (eligibility list will be provided prior to presentations in Week 9 lecture with more information by email)
 - Unfortunately, participation will be assigned ONLY if you actually attend the class, but noting this item is not large overall such that missing a class or two for whatever reason will NOT be a serious concern

Group analyses on identified issues (Worth 35 marks = 7 analyses × 5 marks each)

- Student groups will be formed in Week 1 lecture and will remain together throughout the remainder of the term. See later note on **Group Formation and Evaluation**.
- Through the course a total of seven (7) "Group Issues" will be identified, each in a separate lecture.
- For each issue, student groups will work together during a portion of the lecture to discuss the issue in more depth – note you will have internet access in the class so can undertake additional searching for information.
- Close to the end of each lecture, all student groups will provide a short 2-minute synopsis to the rest of the class of what they found.
- Each student group will submit within seven (7) days a short-written analysis, either via UM Learn or via email, with due dates noted in the Schedule.
- This analysis will be a no long than a maximum of 2 pages of main text, representing about 300 to 400 words, single spaced, 12-point font, excluding references.
- The document should identify the issue and all students part of the group, with it possible to put this information on a separate title page, which is NOT counted as part of the length limit.
- You are expected to identify at least three (3) additional sources (beyond course readings) and cite this source in the text.
- The document is intended to summarize how group members viewed this issue, its relative importance and possible directions to either exploit opportunities or mitigate emerging concerns.
- Assignment of marks for each analysis will be out of 5 and based on Dr. Larson's 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- All students in a group will share the same mark. See later note on **Group Formation and Evaluation**.

Group evaluation report on company sustainable development (Worth 15 marks):

- Student groups will be formed in Week 1 lecture and will work together through the course on this report. See later note on **Group Formation and Evaluation**.
- During the Week 1 lecture, each group will select and confirm a commercial company. Groups must select a different company, which may not be a company for whom group members currently or have worked for in the past. The company does not necessarily need to be headquartered in Canada, but must have some sort of active operations within Canada and must involve some sort of physical supply chain within Canada.
- The student group will locate the organization's sustainability and/or social responsibility report(s), reviewing report(s) in detail, including: what was positive about the report; what was negative; what appeared missing; how realistic the report may be, beyond just "ticking" suitable boxes, in particular regarding supply chains aspects; and what should be changed, whether the report itself or company policies in general?
- Written assignment consists of a brief report involving a main body in the range of 3 to 5 pages (maximum) in length, or roughly 1,000 to 1,500 words, excluding references. The report should be single spaced using at least 12-point font. All students in the group should be identified, as well as the name of the selected company. Note this information can be on a separate title page that will not be counted toward the page limit.
- You will also likely need additional sources of information. Be sure to list all sources of information in a reference section at the end, using a consistent referencing approach (your choice but must be consistent), and use in-text citations in main body to give credit to those sources. References and exhibits do NOT count in page limit.
- The report should also include a brief summary at the start, involving roughly a paragraph.

- Assignment of marks will be out of 15 and based on Dr. Larson’s 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Reports are due two weeks after presentations (in Week 9), i.e., no later than 6:15 PM on Monday April 8, 2024, either to UM Learn folder or via email

Group presentation to class on company sustainable development (Worth 5 marks):

- Student groups will be formed in Week 1 lecture and will work together through the course on this report above. See later note on **Group Formation and Evaluation**. Student groups will also make a presentation to the class regarding their findings.
- Assignment of marks will be out of 5 and based on Dr. Larson’s 5C assessment approach, which will be available early on UM Learn, with a copy forwarded to all students via email, prior to first lecture.
- Presentations will be during the lecture for Week 9, on Monday, March 25th, 2024, starting at shortly after 6:15 PM.
- Each group will be provided 30 minutes, including time for questions from other student in the class.
- Students will all also have an opportunity to provide written feedback via email to the instructor on the presentation of a group other than their own, with eligibility list provided prior to in Week 9 lecture with more information by email. The latter counts under participation.
- Groups must also send PDF version of presentation to instructor, with all presentation files then posted to UM Learn (0.5-mark deduction for each student in group if not sent).

Group Formation and Evaluation

- It is expected that all students as members of groups will diligently contribute to the work of their respective group.
- Group charters must be submitted to the instructor by all groups. What is involved with this will be included with information on Dr. Larson’s 5C assessment approach, available on UM Learn and part of email sent to all students prior to the formal start.
- There is no deadline for submitting a charter document, but marks for group activities will NOT be released nor counted until a copy of the group charter is received.
- Students within a group will all receive the same mark for all group-oriented activities, which represent 50% of all marks for the course.
- If an academic misconduct is detected in any submission by a group, all group members will be held accountable. It is thus prudent to be very careful about written submissions, and likely retain a record of who submitted what.
- After the deadline for submission of group final reports (i.e., April 8, 2024), the instructor will send a confidential email individually to all student to obtain any feedback about group operation, in particular whether or not work contribution was fairly shared among group members. Responses will also be treated confidentially.

Final grades will be assigned as follows:

Cumulative Marks	Grade	GPA	Performance
93 to 100	A+	4.5	Excellent
85 to 92.99	A	4.0	Very Good
78 to 84.99	B+	3.5	Good
70 to 77.99	B	3.0	Satisfactory
65 to 69.99	C+	2.5	Marginal

60 to 64.99	C	2.0	Unsatisfactory
50 to 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 **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

Lecture notes for all class will be posted in advance to the UM Learn system in PDF format, based on the format:

“ OPM 7300 Winter 2024 Week **XX TOPIC**.pdf “

Randomly employed copyrighted materials will be removed, but links included in order for students to locate relevant copyrighted materials.

Week 1 (Monday January 22nd, 2024)

Lecture materials:

- Introductions and course administration overview
- Information about student group formation and operations, group company selection, individual company selection, and individual country selection
- Background on “What is supply chain management?” (Group Issue #1)

Activities:

Formation of student groups (likely four) who work together on the seven group issue summaries (starting in Lecture #1), group report on sustainability evaluation, and associated presentation.

Groups will work together to identify and confirm in the class a commercial company to be reviewed for their sustainability evaluation report and presentation, with requirements:

- Selected companies must involve significant supply chains of some kind in Canada to support their operations

- Selected companies do not need to be based in Canada, but need to have some operational activity within Canada
- No student within the group can work for nor have worked for the company in the past
- Student groups must select different organizations from one another (cannot be the same) (Instructor will identify four starting point organizations to the class as possibilities, but student groups do not need to select any of these)

Individual students will identify and confirm both their selected organization and country for SCM situation evaluation, with requirements:

- For organizations, these must be different from any of those being considered by groups.
- Further students cannot work for nor have worked for the organization in the past
- Students must select different organizations
- For countries, Canada, United States, China (People's Republic), and India are precluded
- Students further may not select a country for which they hold a passport

Student groups will discuss Group Issue #1 ("What is supply chain management?") and present brief comments to class.

Assignments:

Group Issue #1 ("What is supply chain management?") written summary analyses from all groups due by January 29th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Group Charter for each student group due as soon as available. There is no specific date, but no marks will be released or counted for individual groups until submitted and received. One is due from each group, using UM Learn folder or sending by email. Material regarding nature of group charters provided earlier on UM Learn and present to all students in advance of the formal start of the course.

Assigned Readings for Lecture 1 (skim read at least):

1. Larson, P.D. and A. Halldorsson. 2004. Logistics vs. supply chain management: An international survey. *International Journal of Logistics: Research and Applications* 7(1): 17-31. **
2. Larson, P.D. and A. Halldorsson. 2002. What is SCM? And, where is it? *Journal of Supply Chain Management* 38(4): 36-44. **
3. Mentzer, J.T., W. DeWitt, J.S. Keebler, A. Min, N.W. Nix, C.D. Smith and Z.G. Zacharia. 2001. Defining supply chain management. *Journal of Business Logistics* 22(2): 1-20. <https://onlinelibrary.wiley.com/doi/abs/10.1002/j.2158-1592.2001.tb00001.x>
4. Asper School of Business. ND. What is supply chain management? <https://umanitoba.ca/asper/departement-supply-chain-management>

Week 2 (Monday January 29th, 2024)

Lecture materials:

- More extensive background regarding sustainability, including definitions, varying interpretations, sustainability reporting, and limitations (to be used for Group Evaluation report)
- Background on "Impacts of technologies, including blockchain on supply chain management?" (Group Issue #2)

Activities:

Student groups will discuss Group Issue #2 (“Impacts of technologies, including blockchain, on supply chain management?”) and present brief comments to class

Assignments:

Group Issue #2 (“Impacts of technologies, including blockchain on supply chain management?”) written summary analyses from all groups due by February 5th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 2 (skim read at least):

Articles regarding sustainability

5. Spiliakos, A. (2018, updated 2022). What does “sustainability” mean in business? Harvard Business School, Blogs (Updated post: January 21, 2022). <https://online.hbs.edu/blog/post/what-is-sustainability-in-business#:~:text=In%20business%2C%20sustainability%20refers%20to,or%20society%20as%20a%20whole>
6. Institute for Supply Management (ISM). 2020. *ISM Principles of Sustainability and Social Responsibility with a Guide to Adoption*. ISM, Tempe, U.S.A., pages 2-13. https://www.ismworld.org/globalassets/pub/docs/526-prinsussocres_5_20.pdf
7. United Nations. ND. Sustainable Development Goals (SDG). <https://www.un.org/sustainabledevelopment/>
8. Sachs, J.D., G. Lafortune, G. Fuller and E. Drumm (Sustainable Development Solutions Network, United Nations). 2023. *Implementing the SDG Stimulus: Sustainable Development Report 2023*. Dublin University Press, Dublin, Ireland. (Dashboards for countries on pages 37-43). <https://s3.amazonaws.com/sustainabledevelopment.report/2023/sustainable-development-report-2023.pdf>
9. Larson, P.D. 2015. SCM and Sustainability: Implications for Production Management. Keynote address to International Conference of the Japan Society for Production Management, Calgary, September 12, 2015. (Contained on pages. 24-29 in Proceedings of ICPM 2015). **
10. Larson, P.D. 2021. Gender Inequality, Indigenous Rights and Sustainable Development Presentation to Research Conference on Indigenous Matters, January 16, 2021. **
11. Clarkson, L., V. Morrisette and G. Regallet. 1992. Our Responsibility to the Seventh Generation – Indigenous Peoples and Sustainable Development. International Institute for Sustainable Development, Winnipeg, Canada, pages 3-24, 72-77. https://www.iisd.org/system/files/publications/seventh_gen.pdf
12. Larson, P.D. 2021. Relationships between logistics performance and aspects of sustainability: A cross-country analysis. *Sustainability* 13(2): 623. <https://doi.org/10.3390/su13020623>
13. Global Reporting Initiative (GRI). 2017. G4 Sustainability Reporting Guidelines: Reporting Principles and Standard Disclosures. GRI, Amsterdam, Netherlands, pages 16-18, 52-63. Portal: <https://respect.international/g4-sustainability-reporting-guidelines-reporting-principles-and-standard-disclosures/> PDF document: <https://respect.international/wp-content/uploads/2017/10/G4-Sustainability-Reporting-Guidelines-Reporting-Principles-and-Standard-Disclosures-GRI-2013.pdf>
14. Zinenko, A., M.R. Rovira and I. Montiel. 2015. The fit of the social responsibility standard ISO 26000 within other CSR instruments: Redundant or complementary? *Sustainability Accounting, Management and Policy Journal*, 6(4): 498-526.

15. Larson, P.D. 2017. Sustainable Railroading across Canada and Beyond. Proceedings of the 52nd Annual Canadian Transportation Research Forum (CTRF), Winnipeg, Canada May 30, 2017, pages 199-206. <https://ctrf.ca/wp-content/uploads/2017/05/CTRF2017LarsonRailPolicyandPlanning.pdf>
 16. London School of Economics and Political Science (LSE), Blog Editor. 2015. Five reasons to think twice about the UN's Sustainable Development Goals. LSE Blog (Posted: September 23, 2015). <https://blogs.lse.ac.uk/africaatlse/2015/09/23/five-reasons-to-think-twice-about-the-uns-sustainable-development-goals/>
 17. Editorial. 2020. Time to revise the Sustainable Development Goals: The pandemic has set back efforts to achieve the original 2015 targets. *Nature* 583: 331-332. <https://www.nature.com/articles/d41586-020-02002-3>
 18. Hickel, J. 2020. The World's Sustainable Development Goals Aren't Sustainable: There are big problems with the most important metric used to assess progress toward the U.N.'s environmental goals. *Foreign Policy*, Argument: An expert's point of view on a current event (Posted: September 30, 2020 2:53 PM). <https://foreignpolicy.com/2020/09/30/the-worlds-sustainable-development-goals-arent-sustainable/>
 19. Anderson, S. 2023. Global Leaders Sound Alarm on Sustainable Development Goals at UN SDG Summit. *Health Policy Watch* (Posted September 18, 2023). <https://healthpolicy-watch.news/world-leaders-warn-sustainable-development-goals-are-in-peril/>
 20. Editorial. 2023. The world's plan to make humanity sustainable is failing: Science can do more to save it. *Nature* 618: 647. <https://www.nature.com/articles/d41586-023-01989-9>
- Articles regarding technology:
21. Stackpole, B. 2020. 5 supply chain technologies that deliver competitive advantage, MIT Sloan School, Ideas Made to Matter Series (Posted: February 14, 2020). <https://mitsloan.mit.edu/ideas-made-to-matter/5-supply-chain-technologies-deliver-competitive-advantage>
 22. Church, Z. 2017. Blockchain, explained. MIT Sloan School, Ideas Made to Matter Series (Posted: May 25, 2017). <https://mitsloan.mit.edu/ideas-made-to-matter/blockchain-explained>
 23. Gumata, V. 2022. Drones and Robotics: The Future of Warehousing. *Nearshore Americas* (Posted: August 25, 2022). <https://nearshoreamericas.com/drones-and-robotics-the-future-of-warehousing/>.
 24. Cole, E. 2022, "Warehouse Robotics: AMRs, AI & Drones. Association for Advancing Automation (A3), (Posted January 20, 2022). <https://www.automate.org/industry-insights/warehouse-robotics-amrs-ai-and-drones>
 25. Daniel Kupper, D., M. Lorenz, C. Knizek, K. Kuhlmann, A. Maue, R. Lassig, and T. Buchner. 2019. *Advanced Robotics in the Factory of the Future*. Boston Consulting Group (BCG), (Posted: March 27, 2019). <https://www.bcg.com/publications/2019/advanced-robotics-factory-future#:~:text=Automation%20of%20manual%20tasks%20drives,occur%20in%20conventional%20robotics%20processes> (just skim)
 26. Greenberg, A., X. Guo and S. Shomroni. 2020. *Advanced robotics in tomorrow's factory: Addressing the production challenges of complexity, customization and openness*, White Paper. Siemens. https://www.plm.automation.siemens.com/media/global/ja/Siemens%20SW%20Advanced%20robotics%20in%20tomorrows%20factory%20White%20Paper_tcm57-84778.pdf (just skim)
 27. Berko, M. 2023. 6 Uses for generative AI in logistics. *RyderEcommerce* (Posted on October 12, 2023). <https://whiplash.com/blog/generative-ai-logistics/>
 28. Ellingrud, K., S. Sanghvi, G.S. Dandona, A. Madgavkar, M. Chui, O. White and P. Hasebe. 2023. *Generative AI and the future of work in America*. McKinsey (Posted: July 26, 2023). <https://www.mckinsey.com/mgi/our-research/generative-ai-and-the-future-of-work-in-america>

Week 3 (Monday February 5th, 2024)

Lecture materials:

- Background on “What about energy and emissions, especially zero emission vehicles?” (Group Issue #3).

Activities:

Student groups will discuss Group Issue #3 (“What about energy and emissions, especially zero emission vehicles?”) and present brief comments to class.

Assignments:

Group Issue #3 (“What about energy and emissions, especially zero emission vehicles?”) written summary analyses from all groups due by February 12th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 3 (skim read at least):

29. Sustainable Development Technologies Canada (SDTC). 2009. *Industrial Freight Transportation, SD Business Case™*, Version 1. SDTC, Ottawa Canada. (Generally useful baseline status document, but refer to pages 12-22 in Chapter 3 regarding three-effects model). **
30. Natural Resources Canada (NRCan). 2021. *Energy Fact Book*. Government of Canada Natural Resources Canada. Refer to pages vi, 2, 10, 14-16, 34-35, 50-51, 58-59, 61, 63, 88-93, 98-99, 107-109. https://www.nrcan.gc.ca/sites/nrcan/files/energy/energy_fact/2021-2022/PDF/2021_Energy-factbook_december23_EN_accessible.pdf
31. Duncan, R.C. 1996. The Olduvai Theory: Sliding towards a Post-Industrial Stone Age. Institute on Energy and Man (June 27 1996). ** Portal: <https://www.peakoil.net/publications/the-olduvai-theory-sliding-towards-a-post-industrial-stone-age>
32. Parsons, R.V., P.D. Larson and D. Kalluri. (Forthcoming). Zero-emission heavy-duty, long-haul trucking: Obstacles and opportunities for logistics in North America. *Logistics*. **

Week 4 (Monday February 12th, 2024)

Lecture materials:

- Background on “What about consumer logistics, especially food wastes?” (Group Issue #4).

Activities:

Student groups will discuss Group Issue #4 (“What about consumer logistics, especially food wastes?”) and present brief comments to class.

Given apparent lack of easy on-line availability of documentary “Just Eat It” (1 hour 12 minute), instructor, who has access to Knowledge TV, may play video, depending on time availability.

Assignments:

Group Issue #4 (“What about consumer logistics, especially food wastes?”) written summary analyses from all groups due by February 19th, 2024 at 6:15 PM (This is during break period, but still allows one-

week – assignment can be submitted earlier if students are intending to be away). One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 4 (skim read at least):

33. Granzin, K.L. and K.D. Bahn. 1989. Consumer logistics: Conceptualization, pertinent Issues and a proposed program for research. *Journal of the Academy of Marketing Science* 17(1), 91-101.
34. Parsons, R. and P.D. Larson. 2023. How gleaning food addresses greenhouse gas emissions and food insecurity. Policy Options (Posted: January 30, 2023).
<https://policyoptions.irpp.org/magazines/january-2023/how-gleaning-food-addresses-greenhouse-gas-emissions-and-food-insecurity/>
35. Food Banks Canada. 2023. Hunger Count 2023: When is it enough? (Annual updates undertaken)
<https://foodbankscanada.ca/hungercount/>
36. Larson, P.D. and S. Nusaka. 2021. Consumer logistics, food waste and the pandemic. **
37. Baldwin, G. and J. Rustemeyer. 2014. Just Eat It: A Vancouver couple decides to eat only rescued food for six months. What they find is shocking: truckloads of perfectly edible food destined for the landfill. Portal through Knowledge Network: <https://www.knowledge.ca/program/just-eat-it>
Video had been on Youtube (<https://www.youtube.com/watch?v=KUHdTDwdq8U>), but now appears no longer available. Instructor has access to Knowledge and may be able to play video in class pending time availability.

Week 5 (Monday February 26th, 2024)

Lecture materials:

- No new background lecture material this week

Activities:

Individual students will make 10-minute presentation to quickly outline the supply chain situation for their selected organization (selected in first Lecture during Week 1), worth 5 marks.

Assignments:

Up to one student can ask a pertinent question for each presentation (counts toward Participation).

Individual students will submit short reports on supply chain situation for their selected organization by end of day, Monday February 26, 2024 by 11:59 PM (can be submitted earlier).

Week 6 (Monday March 4th, 2024)

Lecture materials:

- Background on “What about international logistics?” (Group Issue #5).

Activities:

Student groups will discuss Group Issue #5 (“What about international logistics?”) and present brief comments to class.

Assignments:

Group Issue #5 ("What about international logistics?") written summary analyses from all groups due by March 11th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 6 (skim read at least):

Since about 2012 the International Bank for Reconstruction and Development and World Bank have released annual reports entitled, "Connecting to Compete: Trade Logistics in the Global Economy" along with Logistics Performance Index (LPI) values for countries in respective years. Tracking of this data over time is a useful way to evaluate progress for respective countries you are assigned. Reports are available in multiple languages. Two specific reports are highlighted in lecture:

38. Arvis, J.-F., L. Ojala, C. Wiederer, B. Shepherd, A. Raj, K. Dairabayeva and T. Kiiski. 2018. *Connecting to Compete: Trade Logistics in the Global Economy*. The International Bank for Reconstruction and Development/The World Bank, Washington, D.C., U.S.A.
<https://documents1.worldbank.org/curated/en/576061531492034646/pdf/Connecting-to-compete-2018-trade-logistics-in-the-global-economy-the-logistics-performance-index-and-its-indicators.pdf>
39. The World Bank. 2023. *Connecting to Compete: Trade Logistics in the Global Economy, The Logistics Performance Index and Its Indicators*. https://lpi.worldbank.org/sites/default/files/2023-04/LPI_2023_report_with_layout.pdf

Further articles:

40. Larson, P.D. 2020. Corruption, gender inequality and logistics performance. *International Journal of Logistics Management* 31(2): 381-397. <https://doi.org/10.1108/IJLM-02-2019-0062>
41. Larson, P.D. and N.M. Larson 2019. The hunger of nations: An empirical study of interrelationships among the Sustainable Development Goals (SDGs). *Journal of Sustainable Development* 12(6): 39-47
<https://doi.org/10.5539/jsd.v12n6p39>

Week 7 (Monday March 11th, 2024)

Lecture materials:

- Background on "What about humanitarian logistics?" (Group Issue #6).

Activities:

Student groups will discuss Group Issue #6 ("What about humanitarian logistics?") and present brief comments to class.

Assignments:

Group Issue #5 ("What about humanitarian logistics?") written summary analyses from all groups due by March 18th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 7 (skim read at least):

42. Kovacs, G. and K.M. Spens. 2007. Humanitarian logistics in disaster relief operations. *International Journal of Physical Distribution and Logistics Management* 37(2): 99-114.
<https://doi.org/10.1108/09600030710734820>
43. McLachlin, R. and P.D. Larson. 2011. Building humanitarian supply chain relationships: lessons from leading practitioners. *Journal of Humanitarian Logistics and Supply Chain Management* 1(1): 32-49.
** <https://doi.org/10.1108/20426741111122402>

44. Larson, P.D. 2021. Security, sustainability and supply chain collaboration in the humanitarian space. *Journal of Humanitarian Logistics and Supply Chain Management* 11(4): 609-622. **
<https://doi.org/10.1108/JHLSCM-06-2021-0059>
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Week 8 (Monday March 18th, 2024)

Lecture materials:

- Background on “What about future risks, including use of SCREAM technique?” (Group Issue #7).

Activities:

Student groups will discuss Group Issue #7 (“What about future risks, including use of SCREAM technique?”) and present brief comments to class.

Assignments:

Group Issue #5 (“What about future risks, including use of SCREAM technique?”) written summary analyses from all groups due by March 25th, 2024 at 6:15 PM. One from each group, using UM Learn folder or sending by email.

Assigned Readings for Lecture 8 (skim read at least):

45. Global Risk Reports are prepared annually by the World Economic Forum and readily available back to 2020. Main portal: <https://www.weforum.org/publications/global-risks-report-2023/> Reports go back for several decades but are less easy to find. Lecture will focus on two: 2021 Report (16th) edition (http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf), and 2023 Report (18th) edition (https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf).
46. Larson, Paul D. (2022), “Exposure and Vulnerability to COVID-19: Opportunities for Disaster Risk Reduction,” Nofoma.**
47. The Economist. 2022. Supply Chain Restructuring (June 16, 2022 issue). Leader: Reinventing globalization, the tricky restructuring of global supply chains. <https://www.economist.com/leaders/2022/06/16/the-tricky-restructuring-of-global-supply-chains>
Briefing: Chain reaction, the structure of the world’s supply chains is changing. <https://www.economist.com/briefing/2022/06/16/the-structure-of-the-worlds-supply-chains-is-changing>
48. The Economist. 2023. Burgeoning Protectionism and Global Geopolitical (October 5, 2023 issue). Leader: Are free markets history? Governments are jettisoning the principles that made the world rich. <https://www.economist.com/leaders/2023/10/05/are-free-markets-history> Special Report: Governments across the world are discovering “homeland economics,” but introducing industrial policy is a big mistake, argues Callum Williams. <https://www.economist.com/special-report/2023/10/02/governments-across-the-world-are-discovering-homeland-economics>
49. de Monts-Petit, C. 2023. Sustainable reboot - supply-chain strategies in the technology sector. *Economist Impact* (Posted: March 15, 2023). <https://impact.economist.com/perspectives/sustainability/sustainable-reboot-supply-chain-strategies-technology-sector>
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Week 9 (Monday March 25th, 2024)

Lecture materials:

- No new background lecture material this week

Activities:

Groups will make presentations (30-minutes including questions) on examining and assessing sustainability and corporate social responsibility reporting, in particular regarding supply chains, of their assigned company, as selected in first lecture (Week 1), worth 5 marks.

Assignments:

Students will all also have an opportunity to provide written feedback via email to the instructor on the presentation of a group other than their own, with eligibility list provided prior to in Week 9 lecture with more information by email. The latter counts under participation.

Assignments:

Groups must send PDF version of presentation to instructor, with all presentation files then posted to UM Learn (0.5-mark deduction for each student in group if not sent).

Group written report due on Monday, April 8, 2024 as noted below.

Week 10 (Monday April 1st, 2024)

Lecture materials:

- No new background lecture material this week

Activities:

Individual students will make 10-minute presentation to quickly outline the supply chain situation for their selected country (selected in first Lecture during Week 1), worth 5 marks.

Assignments:

Individual students will submit short reports on supply chain situation for their selected country by end of day, Monday April 1, 2024 by 11:59 PM (can be submitted earlier).

Final Group Report Submission Deadline

Assignment:

Groups are to submit written reports on sustainability for their assigned organization by, Monday April 8, 2024 by 6:15PM (can be submitted earlier).

This final report can be submitted late, but is subject to a penalty, summarized as follows:

Final Group Report Late Submission	Mark Deductions
Late within 1 day (24 hours) of final deadline	3 marks
Late within 2 days (48 hours) of final deadline	6 marks
Late within 3 days (72 hours) of final deadline	9 marks

Late within 4 days of final deadline	12 marks
Late within 5 days of final deadline	15 marks

SUMMARY OF IMPORTANT DEADLINES

Important written assignment submission and project deadlines are summarized in the following table:

Assignment or Project Item	Deadline
Group Issue #1 Written summary analysis	Monday January 29 th 2024 at 6:15 PM
Group Issue #2 Written summary analysis	Monday February 5 th 2024 at 6:15 PM
Group Issue #3 Written summary analysis	Monday February 12 th 2024 at 6:15 PM
Group Issue #4 Written summary analysis	Monday February 19 th 2024 at 6:15 PM
Individual Presentation on selected organization	Monday February 26 th 2024 during class time
Individual Report on selected organization	Monday February 26 th 2024 at 11:59 PM
Group Issue #5 Written summary analysis	Monday March 11 th 2024 at 6:15 PM
Group Issue #6 Written summary analysis	Monday March 18 th 2024 at 6:15 PM
Group Issue #7 Written summary analysis	Monday March 25 th 2024 at 6:15 PM
Group Presentation on company sustainability	Monday March 25 th 2024 during class time
Individual Presentation on selected country	Monday April 1 st 2024 during class time
Individual Report on selected country	Monday April 1 st 2024 at 11:59 PM
Group Written Report on company sustainability	Monday April 8 th 2024 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 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 - <i>Please refer to Missing a Test/Exam on page 18 of the MBA Student Handbook</i>	MBA Student Handbook
Help with research needs such as books, journals, sources of data, how to cite, and writing	Library Resources
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	University Health Service
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

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.

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.

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.) 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 G05) 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) for undergraduate students. Recently at the graduate level, he taught Logistics Management (SCM 7040), and also co-led the highly-successful 2023 International Study Tour to Iceland for M.B.A. students (IDM 7050). He 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 twenty op-ed style articles primarily relating to sustainability that have been published locally in the Winnipeg Free Press, and is a co-author of two op-ed articles 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 vehicle applications, 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.