

**OPM 7180 (A01) (3.0 CH)
SUSTAINABLE LEAN MANAGEMENT
SUMMER 2022**

INSTRUCTOR

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Office Hours: By appointment
Class Time: Wednesday 18:15 – 21:30

COURSE DESCRIPTION

Sustainable Lean Management will provide students with a basic understanding of the components of Sustainable Lean Management in the context of Profit, People and Planet (the triple bottom line) and the opportunity to practically apply the principles, methods and tools of Sustainable Lean Management to real problems. Sustainable Lean Management, at its core, is about systematically identifying the strategic problems of an organization and methodically solving those problems while simultaneously growing and developing the potential of people to the benefit of all stakeholders of the enterprise. The course will provide:

- a brief background and history of Lean (Toyota Production System (TPS)) and the triple bottom line;
- an overview of the grounding principles and philosophies of Sustainable Lean Management;
- an introduction to the people focus and perspective of Lean systems
- an overview of the 8 wastes and the practical application of waste elimination;
- an overview and the application of systematic problem solving utilizing the PDCA methodology (Plan-Do-Check-Act);
- An introduction to core lean methods and tools – 6S, Visual Management, Daily Management, Standard Work, etc)
- An introduction to Strategy Deployment methods integrating sustainability strategies;
- An introduction to strategies for implementing Sustainable Lean Management within organizations; factors to consider (critical success factors and potential pitfalls).course explores

COURSE OBJECTIVES

On course completion, you should be able to:

- Understand the history, philosophy and principles of Sustainable Lean Management.
- Understand the 8 wastes and take action to eliminate waste.
- Apply the systematic scientific problem solving method to address a “real” process problem.
- Apply basic lean tools and methods to assess current state information and recommend improvements to a process.
- Understand strategic deployment methods for leadership teams.
- Understand the common pitfalls encountered when implementing sustainable lean management systems as well as strategies to increase the likelihood of success.

COURSE MATERIALS

1. "The Toyota Way to Lean Leadership" Jeffrey Liker and Gary Convis. (Bookstore)
2. "The New Sustainability Advantage" Bob Willard
3. Lecture Slides – Posted to UM Learn no later than 24 hours following the scheduled lecture slot.
4. Other articles and reference material to be provided

COURSE ASSESSMENT

Student progress will be assessed through:

- Participation 20%
- Three (3) mini tests 15%
- Three (3) Individual Assignments 15%
- One Team Project..... 20%
- Final Exam..... 30%

Participation:

- Class participation will be assessed on a per class basis as follows:
 - 0 points – Absent
 - 1 point – no active participation;
 - 2 points - answers questions posed by others but does not actively contribute to the class discussion without being called upon;
 - 4 points – actively contributes to class discussion by raising issues or contributing insight related to the discussion

Mini-Tests:

- The course will contain three (3) Mini-tests as per the tentative course schedule below.
- Mini-tests will be distributed at the beginning of the assigned classes.
- There will be no make-up dates provided for missed mini-tests.

Individual Assignments:

- The course will contain three (3) individual assignments that will be assigned in class and will be due approximately two weeks following the assignment (per the tentative course schedule below).
- Late assignments will be docked 10% per day beyond the specified due date unless an alternate due date is arranged in advance due to extenuating circumstances.

Team Project:

- The practical application of lean management skills is critical for sustainable lean management. Teams will develop a report based on practical applications of lean tools. Details on this project will be provided during the first weeks of the course.

Final Exam:

- The Final Exam will be open book, open notes. The exam will be held at the University scheduled time and location (details will be provided when available).

Final grades will be assigned as follows. Please note that the MBA office reserves the right to

determine the final class average and grade distribution in order to ensure compatibility across courses, and final grades may be adjusted accordingly.

Cumulative Marks	Grade	GPA	Performance
90-100	A+	4.5	Excellent
80-89.99	A	4.0	Very Good
75-79.99	B+	3.5	Good
70-74.99	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

NOTE: Class attendance is required. Missing more than 20% of this course due to absences may result in a failing grade. It is your responsibility to inform your professor in advance of your absence and the reason for it (medical documentation or employer note if away for a work commitment) is required. The professor decides how to deal with the impact of missed classes on your final grade.

COURSE SCHEDULE

The following is a tentative course schedule that could be subject to change at the instructor's discretion.

Lecture 1:

Material Covered:

- Introductions
- Course Outline review
- History and Introduction to Sustainable Lean Management
- Lean system overview

Required Reading:

- 1) Course Outline
- 2) The Toyota Way to Lean Leadership - Chapter 1
- 3) The New Sustainability Advantage – Benefit 1

Class Activities:

- Introductions
- Course content
- 5S Numbers Game

Assignment

- Initial written biography (due before lecture 2)
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Lecture 2:

Material Covered:

- Waste identification
- PDCA cycle overview
- FOG and Burning Platform

Required Reading:

- 1) The New Sustainability Advantage – Benefit 2

Class Activities:

- Team assignments
- Virtual waste walk
- Charter development

Work Assigned:

- Individual Assignment # 1 – Waste Identification
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Lecture 3:

Material Covered:

- Value Stream Mapping
- Defining Current State
- Time observations, takt time, defining a GAP

Required Reading:

- 1) The New Sustainability Advantage – Benefit 3

Class Activities:

- Creating a value stream map

Work Assigned:

- None

Deliverables

- None
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Lecture 4:

Material Covered:

- Standard Work
- Role definition
- 6S Methods

Required Reading:

- 1) The Toyota Way to Lean Leadership - Chapter 2
- 2) The New Sustainability Advantage – Benefit 4

Class Activities:

- Test #1
- Standard work exercise

Work Assigned:

- None

Deliverables:

- None
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Lecture 5:

Material Covered:

- The people side of Lean
- HR practices and organizational structure for Lean

Required Reading:

- 1) The Toyota Way to Lean Leadership - Chapter 7
- 2) The New Sustainability Advantage – Benefit 5

Class Activities:

- In class case study

Work Assigned:

- Individual Assignment # 2 - Standards
- Team Project Work

Deliverables:

- Individual Assignment #1 – Waste Identification
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Lecture 6:

Material Covered:

- Daily Management Process
- KPI development and use

Required Reading:

- 1) The Toyota Way to Lean Leadership - Chapter 4
- 2) The New Sustainability Advantage – Benefit 6

Class Activities:

- Test # 2
- Daily Management application Exercise

Assignment:

- None

Deliverables

- None
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Lecture 7:

Material Covered:

- Systematic Problem Solving – Part 1
 - Plan in the PDCA cycle

Required Reading:

- 1) The Toyota Way to Lean Leadership – Chapter 3

Class Activities:

- Guest speaker TBD

Work Assigned:

- Individual assignment #3 – Interview / Tour report

Deliverables:

- Individual Assignment #2 – Standards
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Lecture 8:

Material Covered:

- Systematic Problem Solving – Part 2
 - Do, Check and Act in the PDCA cycle

Required Reading:

- 1) The New Sustainability Advantage – Benefit 7

Class Activities:

- Site Tour / Interview
- Team Project Work

Deliverables:

- None
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Lecture 9:

Material Covered:

- Strategic Deployment

Required Reading:

- 2) The Toyota Way to Lean Leadership (Chapter 5)

Class Activities:

- Test #3

Work Assigned:

- None

Deliverables:

- None
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Lecture 10:

Material Covered:

- The comprehensive sustainable lean management elements
- Sustainable Lean Management key characteristics and common pitfalls

Required Reading:

- 1) The Toyota Way to Lean Leadership – Chapter 6

Class Activities:

- Dana Case discussion
- Course Review

Work Assigned:

- None

Deliverables:

- Team Project Reports Due
- Individual Assignment #3 - Tour / Interview report

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.

If you will be collecting data only from other students in the class, you do not need REB approval. 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	MSCM Course Information
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 Behaviour

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.

FACULTY BIOGRAPHY

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

Richard Pound, P. Eng, MBA

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

Richard Pound is a Lean Manufacturing expert with two decades of experience in operations across a variety of industries. His technical background includes diverse roles in Healthcare process improvement, manufacturing engineering, product design and development, project management, operations supervision, and change management in companies ranging from 20 employee start-ups to global industry leaders.

With a unique mix of hands-on experience and business savvy, Richard provides insight in all areas, from technical detail to business systems to strategic planning. He also draws on experience in product development having developed, certified, and marketed a proprietary product line for commercial airlines. Working with Lean Manufacturing and Lean Management tools and techniques for over a decade, he supported a world class aerospace manufacturer, leading a team of technical experts through a Lean Culture Change project. He led the operational excellence program at St. Boniface Hospital as the Director of Transformation, introducing systematic problem solving with a focus on large, cross functional issues.

Richard is currently the lean leader for Masterbrand Canada, leading the lean transformation and culture development for the Canadian division with over 1200 employees across two facilities.

Richard holds a BA from the University of Winnipeg, a Mechanical Engineering degree from the University of Manitoba, and an MBA from the Asper School of Business.