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Schulich School of Business

OMIS5210 W2021 CREDITS: 1.50

OMIS 5210 F - OPERATIONS MANAGEMENT

WED 08:30 - 11:30

INSTRUCTOR

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BRIEF DESCRIPTION

Operations management in both manufacturing and service organizations involves the coordination of complex and dynamic systems of people, technology and materials to achieve competitive objectives. The impact of alternative strategies for delivering quality products in a cost-effective manner is examined. This includes currently popular inventory management philosophies such as `Total Quality Management' and `Just-In-Time' inventory management.

COURSE LEARNING OUTCOMES

The fundamental managerial task for achieving best practices in operations management is to successfully match the capabilities of administration, manufacturing and service processes to the needs of internal and external customers. As a result, students will be equipped to answer the following relevant questions:

1. From the customer's perspective, what are the appropriate choices in designing an effective process?
2. What is quality and how is it measured?
3. How can product and process quality be improved?
4. What is the scope and purpose of supply chain management?
5. How can supply chains be designed to be both efficient and responsive?
6. What are the major principles leading to “lean” process improvements?
7. How can projects be planned and managed to use resources efficiently while ensuring customer requirements are satisfied?

This course utilizes case studies from recognized global organizations.

LEARNING REMOTELY

Due to the COVID-19 situation, this course will run in an online format. All students are expected to have the following technology to participate in this course:

1. Computer
2. High speed internet
3. Web camera
4. Microphone

Students are responsible for ensuring they have the equipment needed and corresponding practices in place (e.g.,

ability to tether to hotspot in the event of an internet outage, data backup strategy in the event of computer failure) to ensure they can complete course requirements.

Several platforms will be used in this course (e.g., Canvas, Zoom, etc.) through which students will interact with the course materials, the instructor, as well as with one another. Please review the technical specifications for **Zoom (https://support.zoom.us/hc/en-us/articles/201362023-System-Requirements-for-PC-Mac-and-Linux)** and **Canvas (https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66)** . Please review the syllabus to determine how the class meets (in whole or in part) and how presentations will be conducted. Students shall note the following:

- Zoom is hosted on servers in the U.S. This includes recordings done through Zoom.
- If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

Copying of any Zoom recordings or other course materials for public or commercial distribution is strictly prohibited and may lead to copyright and/or privacy law violations.

Technical Issues

Students who are unable to submit an assignment or exam due to technical issues with their computer, network connection or learning tools should immediately email a copy of their work to their instructor, and then complete and email a **Technical Issues Form** to their instructor. For Exams, please also review complete all requirements from the policy page of the syllabus.

COURSE MATERIAL

Materials for this course include:

- Case studies that you will purchase online
- Access to Canvas, the online course management platform

Additional Resources:

Please download the e-textbook “Operations & Supply Chain Management: Here, There, & Everywhere (VERSION 5.0)” from Canvas.

“Matching Supply with Demand: An Introduction to Operations Management", 3rd edition (2012) by Gerard Cachon and Christian Terwiesch.

Case Studies:

You will be required to purchase the following coursepack from: https://hbsp.harvard.edu/import/780844.

For the Littlefield Labs simulation, you will need to purchase individual access at a link to be provided by the instructor.

ASSIGNMENT SUMMARY

Assignment | Task	Group | Individual	Total % of Final Grade	Due Date
Process Simulation Assignment 10%			
Littlefield Technologies Lab (Process Simulation Assignment)		10%	Mon Feb 15, 2021 at 11:59pm EST
Quizzes 40%			
Quiz 1		20%	Wed Jan 27, 2021 at 09:15am EST
Quiz 2		20%	Wed Feb 17, 2021 at 09:00am EST
Group Process Analysis Project 30%			
Group Project Proposal		0%	Wed Feb 3, 2021 at 11:59pm EST
Group Process Analysis Project		25%	Wed Feb 24, 2021 at 11:59pm EST
Group Assignment Presentation		5%	Wed Feb 17, 2021 at 08:30am EST
Participation (Class Contributions) 10%			
Class Participation		0.91%	
Participation (Discussions) 10% 1 lowest will be dropped			
Discussion Board: Week 1 Reflections		2%	
Discussion Board: Week 2 Reflections		2%	
Discussion Board: Week 3 Reflections		2%	
Discussion Board: Week 4 Reflections		2%	
Discussion Board: Week 5 Reflections		2%	

WRITTEN ASSIGNMENTS: DESCRIPTIONS

Littlefield Technologies Lab (Process Simulation Assignment)

Due Date: Mon Feb 15, 2021 at 11:59pm EST

Over the course of one week, students will have the opportunity to test their operations management skills against their peers. The objective of the assignment is to develop an understanding of capacity management, queueing and market projection. Students actively manage capacity to meet the demand requirements of a lab that provides testing for blood samples. Students are awarded grades based on both their final outcome (cash balance) and a two-page (maximum) summary of the simulation detailing their strategies.

Guidelines for Littlefield Lab Simulation W21.pdf **(https://schulich.instructure.com/courses/5190/files/400064/download?download_frd=1)**

Littlefield Lab Overview (students).pdf **(https://schulich.instructure.com/courses/5190/files/396826/download?download_frd=1)**

Littlefield Lab Capacity Assignment (Students).pdf **(https://schulich.instructure.com/courses/5190/files/396844/download?download_frd=1)**

LL's Brief Overview.pptx **(https://schulich.instructure.com/courses/5190/files/400065/download?download_frd=1)**

Value: 5%+5% = 10%

Quiz 1

Due Date: Wed Jan 27, 2021 at 09:15am EST

Quizzes are open book, time limited and conducted on Canvas.

Quiz #1, held at the beginning of Class 3, involves 15 multiple choice or short answer questions to be completed in 30 minutes on Canvas. This Quiz covers the topics covered in the first 2 classes of the course.

Process Flow Diagram **(https://schulich.instructure.com/courses/5190/files/417965/download?download_frd=1)**

Quiz 2

Due Date: Wed Feb 17, 2021 at 09:00am EST

Details available Wed Feb 17, 2021 at 08:30am EST

Group Project Proposal

Due Date: Wed Feb 3, 2021 at 11:59pm EST

Please create a group for your team members in the Group Project section in the People area on Canvas. Once you have decided what organization and process (or sub-process) you will be studying, please submit a brief note here to let me know what you are working on. Only one submission is required on behalf of the group - please delegate one group member to submit.

Group Process Analysis Project

Due Date: Wed Feb 24, 2021 at 11:59pm EST

Groups of five or fewer students will select an organization and conduct an analysis of one of its processes. Details for selecting an organization will be discussed in class. You have two options for conducting this project – **see Guidelines for Business Process Improvement Project** below**.**
You are expected to submit a group report no longer than 8 single-spaced pages **(it can be shorter) excluding exhibits and references (no less than 10-point font).**

Each report should have the Human Participants form attached in the event you were successful at connecting with an appropriate representative from the organization. **See Guidelines for Business Process Improvement Project** below for details on what is expected for the report. You are asked to select your own partners from the class.
Value: 30%

Guidelines for Business Process Improvement Project W21.pdf (https://schulich.instructure.com/courses/5190/files/400027/download?download_frd=1)

Interview Consent Form.docx (https://schulich.instructure.com/courses/5190/files/400028/download?download_frd=1)

grading template - new.xlsx (https://schulich.instructure.com/courses/5190/files/396804/download?download_frd=1)

Group Assignment Presentation

Due Date: Wed Feb 17, 2021 at 08:30am EST

In Week 6, each group will be required to deliver a 5-6 minute presentation on their Group Assignment, which is due the following week. A PP Presentation needs to be prepared and shown to the group in Week 6. This PP presentation also needs to be e-mailed to the instructor prior to the start of the class. Each member of the team needs to be involved in the presentation.

The presentation needs to answer the following:

1. Name of the Company and the industry the company is involved in.

2. Why was this Company chosen?

3. Identify the operating process to be studied.

4. Why was this operating process selected?

5. What opportunities need to be addressed for the stated operating process? Are there any weaknesses in the stated operating process?

6. Why are these weaknesses important?

Good luck!

Class Participation

Participation grades are not awarded based on attendance. Students must provide evidence of their participation in the course through their engagement in class discussions, discussion forums, and break-out rooms.

Discussion Board: Week 1 Reflections

Please post any general comments or questions about operations strategy and process analysis.

Discussion Board: Week 2 Reflections

Please post any general comments or questions about quality management.

Discussion Board: Week 3 Reflections

Please post any general comments or questions about supply chain management.

Discussion Board: Week 4 Reflections

Please post any general comments or questions about JIT and the Toyota Production System.

Discussion Board: Week 5 Reflections

Please post any general comments or questions about planning and improving projects.

GRADING SCHEME

A+	100%	to	90%
A	< 90%	to	85%
A-	< 85%	to	80%
B+	< 80%	to	75%
B	< 75%	to	70%
B-	< 70%	to	65%
C+	< 65%	to	60%

C	< 60%	to	55%
C-	< 55%	to	50%
F	< 50%	to	0%

CLASS-BY-CLASS SYLLABUS

Introduction - Welcome!

Overview: Welcome!

Welcome to OMIS 5210!

The Introduction Module includes general information about this course, while the weekly Modules that follow contain content specific to each session.

Class 1: Operations Strategy and Process Analysis

Jan 13/21

Overview: Operations Strategy and Process Analysis

Key Learnings:

What is Operations Management and who is an operating manager?
The importance of aligning product and process strategies to deliver value.
Basic process analysis.

Assigned Readings:

"Process Fundamentals" HBS 9-696-023.
Case Study: Kristen's Cookies.

Case Study Questions:

What questions should you ask first to begin to design the best process for making cookies?
Answer questions 1, 2, 3, and 6 at the back of the case.

Suggested Readings:

Chapters 1 and 2 Operations and Supply Chain Management (OSCM).
Chapter 3 Matching Supply with Demand.

Class 2: Quality Management

Jan 20/21

Overview: Quality Management

Key Learnings:

Definition and measurement of quality.
Process variance and its impact on organizational performance.
Process capability.
Strategies for improving product and process quality.
Total Quality Management and six sigma improvement methods.

Assigned Readings:

Case Study: Agile Electric: Quality Issues in a Global Supply Chain.

Case Study Questions:

Should the complete recall/field failure and associated costs be charged to the tiered

suppliers?
Was Automek's decision to source the business from Agile a good one? Did Agile make the right call in accepting the contract?
Do you see the internal quality practices as having a major impact in the case, considering all the supply chain members? Are ISO 9000 and TS 16949 necessary and sufficient conditions for adequate process knowledge and diffusion of internal quality practices?
Would Agile receive any benefits if it invested resources in developing its suppliers? Who is responsible for accelerating the implementation of quality practices in lower-tier suppliers?
Why were ECPL and BIPL not interested in improving their processes and manufacturing practices?

Class 3: Supply Chain

Suggested Readings:
Chapters 11, 12 & 13 OSCM (focus on concepts not calculations).
Chapter 10 Matching Supply with Demand.

Management

Jan 27/21

Overview: Supply Chain Management

Supply Chain Management

Key Learnings:
What is a supply chain?
What key decisions are made in managing the supply chain?
How must supply chain decisions align with customer requirements?
Define the scope & purpose of 'make' versus 'buy' strategies.

Assigned Readings:

Case Study: New Balance Shoes.

Case Study Questions:
Evaluate New Balance's current operating strategy. How well do their supply chain decisions fit within this strategy?
Assuming that the total US market for athletic footwear was 400 million pairs in 2005, how costly was New Balance's decision to maintain 25% of its manufacturing in the USA? What is your assessment of this decision?
Moving forward, how important is the NB2E initiative for New Balance?

Assigned work due:
Quiz #1 – during the first 30 minutes of class.

Suggested Readings:
Chapters 6, 9 &10 Operations and Supply Chain Management (OSCM).
Chapter 17 Matching Supply with Demand.

Class 4 - Toyota Production System

Feb 3/21

Overview: Toyota Production System

Toyota Production System

Key Learnings:

JIT and the Toyota Production System.
Pull versus push process strategies.
The seven wastes in process improvement.
The relationship between waste reduction and improved process performance.

Assigned Readings:
Case Study: Toyota Motor Manufacturing USA Inc.

Case Study Questions:
What would you do on Monday morning as Doug Friesen?
What are the essential elements of the Toyota Production System (TPS)?
What is the role of line employees, supervision and management in the TPS?
What are your recommendations to Doug Friesen to address the seat problem?
What do you think about stopping the line? Should it be stopped when the station identifies a defective seat?
How would you deal with the supplier, employees and managers involved?
What is the real management problem facing Doug Friesen?

Suggested Readings:
Chapter 14 Operations and Supply Chain Management (OSCM).
Chapter 11 Matching Supply with Demand.

Class 5 - Planning and Improving Projects

Feb 10/21

Class 6 - Debriefing on Process Analysis Project and Course Summary

No Class –

Feb 17/21

Group Process Analysis Project due

Overview: Planning and Improving Projects

Planning and Improving Projects

Key Learnings:
Projects need to be managed like a process.
Importance of defining a project's deliverables.
Critical Path Method for planning projects.
Methods for controlling project performance.
Project management as an organizational and individual competency.

Group Process Analysis Project

Overview: Debriefing on the Process Analysis Project and Course Summary

Debriefing on the Process Analysis Project and Course Summary

In Class Activities:

Groups will present their process improvement projects. Each group is to prepare & present a brief PowerPoint slide presentation describing their project to the class. More details will be posted on Canvas.

Assigned work due:

> Quiz #2 – during the first 30 minutes of the class.

STUDENT

PREPARATION FOR CLASS AND CLASS PARTICIPATION: EXPECTATIONS

Deliverables