



## **Operations Management**

MSCI 3000 (3 credits)

Spring Semester 2022

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### **Course Description**

This course addresses the operations of organizations from a strategic and operational perspective. It introduces some of the most widely used models in management science.

It addresses topics such as operations strategy, process selection, supply chain management, operations planning and scheduling, quality management.

### **Course Objectives**

In today's competitive environment, many organizations have been restructuring in response to global competition and the realization that maintaining customer loyalty is dependent upon operational excellence. Operations Management (OM) is about doing just that: designing internal processes and continually improving them once they are in place.

OM deals with the management of the resources required to provide the services and goods produced by an organization. These resources include: people, materials, equipment, facilities and knowledge. The operations function is central to any enterprise. OM is primarily concerned with the efficient and effective

use of the resources of organizations, in recognition of the strategic importance of operational excellence as a major source of competitive strength.

### **Learning objectives**

On successful completion of this course, you should be able to:

- Demonstrate an understanding of the strategic importance of operations management and its purpose in contemporary global business environments.
- Discuss how operations management relates to the other functions, such as marketing, financial analysis and human resource management.
- Explain the need for operations management systems: inputs, processes and outputs of a variety of businesses.
- Develop the knowledge and critical thinking skills necessary to use the concepts and strategies in order to recognize, formulate, analyze, design and manage operations and create value.
- Describe and implement the methods and tools needed to model and analyze operations issues.

### **Course Materials & Resources**

- **Textbook:** “Operations Management” by Jay Heizer and Barry Render 9<sup>th</sup> Edition, Prentice Hall.
- **Course Packet:** Lecture slides. Its purpose is to guide students in the lecture and facilitate taking notes. Most slides in the packet merely highlight the topics. You have to take notes in class and read the book to obtain the details. Always come to the lecture with your course packet.

## Grading

Course grades will be approximately distributed according to the recommended guidelines of the Management Sciences Department at the University of Iowa, which is 30% A's, 40% B's, 20% C's and 10% D's. These are only guidelines.

Minimum Points Needed for Each Grade\* (1000 points maximum possible):

Excellent	A	931 – 1000
	A minus	901 – 930
Good	B plus	871 – 900
	B	831 – 870
	B minus	801 – 830
Satisfactory	C plus	771 – 800
	C	731 – 770
	C minus	701 – 730
Passing	D	601 - 700
Failing	F	Below 600

\*plus or minus grading will be used in the final course grade.

### Points Allocation:

1 <sup>st</sup> Exam	250 points
2 <sup>nd</sup> Exam	300 points
Class Participation	100 points
3 Quizzes (in class)	210 points (70 points per Quiz)

Business simulation report	100 points
Business simulation final result	40 points available and allocated with the rule provided in class by the instructor

Note: the 3<sup>rd</sup> Quiz will be precisely completing a questionnaire after the company tour.

### **Tentative Class Schedule**

Day (Indicative)	Lecture		Reading Assignments (TO BE DONE before attending class) and reminders
	Topic	Chapter	
01 - 02	Syllabus Presentation	-	Article: "Who manages Manufacturing?" (in the course pack)
	Introduction to Operations Management	01	
	Manufacturing	02	
03	Process Strategy	07	Article: "Kirsten's Cookies" (in the course pack) -- Kahoot! Session
04 - 05	Capacity Planning	07 Supp	Activity in class: The Dice Game (regarding capacity management)
06	<b>In-Class 1st Quiz</b> (Day 01 - 05) Supply Chain Management P1	11	Please see slides in the course pack and material provided in class. Reference chapter in the book for additional reading: chapter 11
07	Supply Chain Management P2	11	Guest Speaker
08	Forecasting	04	Global Company Profile: "Disney World" (in Chapter 4, pag. 104 - 105)
09 - 10	Inventory Management <b>In-Class 2nd Quiz</b> (Day 06 - 09) <b>on Day 10</b>	12	Global Company Profile: "Amazon.com" (in Chapter 12, pag. 482 - 483)
11	Littlefield Labs - Business Simulation Managing your own company with your team	-	1. Littlefield Labs: Overview 2. Managing Customer Responsiveness Littlefield Labs (both are in the course pack) -- Kahoot! Session  <b>VERY IMPORTANT: Register your Team Account Name and Password within the date communicated in class by the professor</b>
12	Littlefield Labs - Business Simulation Pt.2	-	



Day (Indicative)	Lecture		Reading Assignments (TO BE DONE before attending class) and reminders
	Topic	Chapter	
13	<b>MIDTERM EXAM</b>		
14	Managing Quality	06	Global Company Profile: "Arnold Palmer Hospital" (in Chapter 6, pag. 192 - 193)
15 -16	Process Improvement: 1. Lean and its basic tools 2. Six Sigma	16	Article: "Pharmacy Service improvement at CVS - PART A" (in the course pack) -- Kahoot! Session  Please see slides in the course pack and material provided in class. Reference chapter in the book for additional reading: chapter 16
17	Technical Assessment of a Plant	-	Before the company tour (date will be announced by CIMBA) read the article in the course pack: "Read a plant - Fast" -- Kahoot! Session
18	<b>In-Class 3rd Quiz on Technical Assessment of a Plant</b>  Littlefield Lab Business Simulation  Final Debrief and Reports	-	
19 - 20	Project Management CPM	03	Please see slides in the course pack and material provided in class. Reference chapter in the book for additional reading: chapter 03
21	MRP & ERP	14	Global Company Profile: "Wheeled Coach" (in Chapter 14, pag. 560 - 561)
Optional based on class' preference and time available	Agile VS. Waterfall  AI & Supply Chain  Design of goods & Services	-  -  05	Article: "The last day of Target" (in the course pack) -- Kahoot! Session  Article: "How to win with machine learning" (in the course pack) -- Kahoot! Session  Read the book from page 155 to page 166
22  Week 12	<b>FINAL EXAM</b>		<b>The exact time of the final will be announced in advance by CIMBA</b>

## **Attendance Policy**

Attendance at all classes and CIMBA sanctioned activities is MANDATORY. All unexcused absences will have the following consequences:

- a. 1st absence will result in a loss of a 1/3 of a letter grade in that class
- b. 2nd (cumulative) absence will result in a loss of an entire letter grade in that class
- c. 3rd (cumulative) absence will result in a dismissal from the program.

Absences due to illness require a note from the CIMBA Office Staff. If a student is sick and cannot attend class, he/she must inform the CIMBA Staff immediately. Failure to do so will result in an unexcused absence.

## **Grievance Policy**

Student concerns regarding this course should first be discussed with me, the faculty member teaching this course. If we can't resolve the complaint, you may contact the CIMBA Director, Cristina Turchet (front office for appointments or phone +39 0423 932160 or [turchet@cimba.it](mailto:turchet@cimba.it) ). The Director will review the details of the complaint and involve the Associate Dean of the Undergraduate Programs, as needed.

## **Academic Misconduct**

The Tippie College of Business has an Honor Code, and you must abide by it in completion of all assignments. Integrity is a reflection of your character and is critical for creating meaningful and lasting relationships. One part of integrity is abstaining from acts like cheating, so cheating on any assignment in this class will result in an appropriate consequence, usually a zero for the grade in question and, if that penalty does not reduce the grade, a penalty of a full letter grade reduction. In addition, all incidents of cheating will be reported to the appropriate academic offices, and the student may be placed on disciplinary probation, be suspended, or even permanently expelled, depending on the severity of the offense. If a student has been found in violation of this policy, they will first be notified directly, then I will report to the appropriate program office. Faculty and students can report Academic Misconduct via the college website. ([https://cm.maxient.com/reportingform.php?Univoflowa&layout\\_id=6](https://cm.maxient.com/reportingform.php?Univoflowa&layout_id=6))

## **Accommodating Students with Disabilities/Academic Accommodations**

A student seeking academic accommodations such as a modification of seating, testing, timing, etc. should first register with their home institution's Student Disability Services, then contact Joelle Petersen ([joellepetersen@uiowa.edu](mailto:joellepetersen@uiowa.edu)) in the CIMBA Office to make further arrangements. See <http://sds.studentlife.uiowa.edu> for more information.

## **Fairness and Freedom of Expression**



Every student is entitled to the same intellectual freedom I have. I will respect that freedom, and I am obliged to protect your freedom to learn, regardless of your religion, race, sex, sexual orientation, gender identity, or political views, or on your agreement or disagreement with my positions pertaining to matters of controversy within the discipline. I will do my best to provide you with a fair and impartial evaluation of your work, consistent with articulated standards for this course.

## **Sexual Harassment**

Sexual harassment subverts the mission of the Program and threatens the well-being of students, faculty, and staff. All members of the CIMBA community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. If you feel that you are being or have been harassed or you are not sure what constitutes sexual harassment, we encourage you to seek assistance from the CIMBA Director, Cristina Turchet at the front office or phone +39 0423 932160 or [turchet@cimba.it](mailto:turchet@cimba.it).

## **Sustainability**

The University is committed to demonstrating sustainability practices within all facets of the institution. Student support is critical to our campus wide efforts to reduce waste by consuming as few natural resources as possible and purchasing recycled materials when feasible. Recycling and reuse of all materials is encouraged. Together, let's ensure a better world for us and future generations. Learn more at the Office of Sustainability and the Environment <https://sustainability.uiowa.edu>.

## **Mental Health**

Students are encouraged to be mindful of their mental health and seek help if they are feeling overwhelmed and/or incapable of meeting course expectations. For assistance with the class, students are encouraged to talk to the faculty member. The CIMBA travel insurance will cover online counseling services. Please reach out to the CIMBA office for more details and support. After hours, we encourage you to call the emergency phone number at CIMBA if you are having a mental health emergency.