

Academic Year: ( 2023 / 2024 )

Review date: 28-04-2023

Department assigned to the subject: Business Administration Department

Coordinating teacher: BERENGUER FALGUERA, GEMMA

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 1

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

Statistical Methods

**OBJECTIVES**

- Understand the basic operational and supply chain decisions of the firm.
- Understand the importance of planning and use basic planning and control tools.
- Understand the differences among the main production systems.
- Diagnose real-world problems in the field of operations management.

General aptitudes:

- Ability to develop professional oral and written communication
- Capacity to work in teams
- Develop learning ability and autonomous study
- Know how to manage decision-making processes

**DESCRIPTION OF CONTENTS: PROGRAMME****SESSION 1: PROCESS FLOW ANALYSIS 1**

Capacity, bottleneck, cycle time, Little's Law

In-class practice exercises

**SESSION 2: PROCESS FLOW ANALYSIS 2**Reading/Case discussion: Shouldice Hospital Limited (Harvard Business School)  
Product mix, inventory build-up and direct labor content**SESSION 3: INVENTORY MODELS 1**Introduction to supplier relationship and EOQ model  
Newsvendor model**SESSION 4: INVENTORY MODELS 2**In-class practice exercises  
Periodic Review Model**SESSION 5: SUPPLY CHAIN COORDINATION**

Team activity: The Beer Game (Harvard Business School Simulation)

**SESSION 6: PROJECT MANAGEMENT**

Description of different project management models: CPM, PERT, agile

**SESSION 7: QUALITY MANAGEMENT 1**

Description of the modern theory of quality and six sigma

In-class practice exercises

## SESSION 8 QUALITY MANAGEMENT 2

Description of lean manufacturing

In-class practice exercises

## SESSION 9: LINEAR PROGRAMMING APPLIED TO OPERATIONS

LP Theory and use of Excel

In-class practice exercises

## SESSION 10: OPERATIONS STRATEGY

In-class practice exercises

## LEARNING ACTIVITIES AND METHODOLOGY

### CLASS ACTIVITIES:

The approach in this course includes lectures, readings, and several active learning exercises. The readings are intended to illustrate the basic concepts of operations management as they apply to a variety of organizations, both manufacturing and service firms. Because of the extensive use of readings, the discussion between you and your classmates will be an important vehicle for learning these concepts. We will also have hands-on exercises.

### DELIVERABLES:

There are 5 deliverables, which include 3 group submissions and 2 individual problem sets. The dates and topics of all submissions will be shown in the submissions schedule table that will be provided before starting the course. The five group assignments are to be done in study teams.

### STUDY TEAMS:

Students are assigned a study team each term for all courses in the MBA program. The team will be 4 to 5 students. Peer evaluations will be conducted at the end of the course.

### CLASS PARTICIPATION AND ATTENDANCE:

This will be determined based on your attendance and your overall contribution to the class. Your instructor may cold call you to answer questions in class, and you are expected to be prepared to answer these. If you are not attentive in class (for example distracted by electronic devices) then you will not be able to answer questions when called upon. Attendance will be taken every class session. Students can be active in the course forum as well as by contacting the instructors with questions via email.

## ASSESSMENT SYSTEM

Class Attendance and Participation (10%)

Group Case Submissions (30%)

Individual Problem Set (20%)

Final Examination (40%)

<b>% end-of-term-examination:</b>	40
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<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	60
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## BASIC BIBLIOGRAPHY

- Cachon and Terwiesch Matching Supply with Demand: An Introduction to Operations Management, McGraw-Hill, 3rd Edition. 2013
- Meredith, Jack R. Operations Management for MBA, John Wiley and Sons, 2012

