uc3m Universidad Carlos III de Madrid

Operations Management

Academic Year: (2023 / 2024) Review date: 27-04-2023

Department assigned to the subject: Business Administration Department

Coordinating teacher: BERENGUER FALGUERA, GEMMA

Type: Compulsory ECTS Credits: 6.0

Year: 4 Semester: 1

OBJECTIVES

The objective of the course is to introduce students to the Strategic Decision Making Processes related to the Operations Management area. For this purpose, the strategies of the Operations Department are studied and analyzed; the strategic decisions that accompany the different processes of generation of goods and services are presented as well as the strategic decisions of location, capacity, and distribution of the facilities. To help in these decision-making processes, the knowledge that students may have previously acquired regarding demand estimation and project management is reinforced. In accordance with the demands of society, some final chapters on sustainability, SDGs, and Circular Economy.

DESCRIPTION OF CONTENTS: PROGRAMME

- 1. Introduction to Operations Management.
- 2. Strategic Operational Decisions
- 3. Project Management
- 4. Estimation of demand (Forecast)
- 5. Process Analysis
- 6. Strategic decisions on location and plant layout
- 7. Strategic decisions on quality management
- 8. Lean Operations
- 9. Green Supply Chains and the Circular Economy
- 10. Sustainable Development Goals
- 11. Humanitarian Logistics

LEARNING ACTIVITIES AND METHODOLOGY

Class Activities: The approach in this course includes lectures, cases, and several active learning sessions. The cases are intended to illustrate the basic concepts of operations management as they apply to a variety of organizations and industries. Because of the use of cases, the discussion between you, your classmates, and the instructor will be an important vehicle for learning these concepts. We will also have in-class guizzes and practice exercises.

Team Deliverables: There are 3 case submissions and 1 project deliverable. The dates and topics of all submissions are shown in the submissions schedule table of the Syllabus that will be distributed in class. All 4 deliverables are to be done in study teams. Students are responsible to form study teams on own. The team size should be 4 to 5 students. Details of each submission will be provided in Aula Global. Peer evaluations will be conducted at the end of the course.

Quizzes: A total of 3 Quizzes will be taken individually during some of the "grupos reducidos" sessions. Each quiz will be done closed book and closed notes but a formula sheet will be allowed.

There will be two types of Office Hours, one type will be offered in-person at the instructor's office and the second type virtually (on Google Meet) by appointment. The specific times of the in-person office hours will be described in the syllabus of the course.

ASSESSMENT SYSTEM

The grade for the course will be based on several components:

Continuous Evaluation (70%)

- Class attendance and participation (15%)
- Quizzes during practical sessions (grupos reducidos) (20%, 3 in-class quizzes but only the highest 2 scores will count, 10% each)
- Case study submission reports during theoretical sessions (magistrales) (20%, 3 Case deliverables in teams but only the highest 2 scores count)
- Final project (15%)

Final Examination (30%)

% end-of-term-examination: 30 % of continuous assessment (assignments, laboratory, practicals...): 70

BASIC BIBLIOGRAPHY

- Cachon and Terwiesch Matching Supply with Demand: An Introduction to Operations Management, McGraw-Hill, 2018
- HEIZER, J., RENDER, B. "Operations Management", Prentice Hall, Última edición disponible, nunca versiones anteriores a 2004.