Course: Operations Management II  
Code: 10BBA40003

Type: Required  Year: 2  Semester: 2  
ECTS Credits: 3  
Languages: Spanish  
Coordination:

Faculty:  
Miguel Angel Heras Forcada  
Enrique Herreiz Bordas  
Juan Ramis Pujol  
Rafael Sardá Borroy

Workload distribution:  
Lectures: 20 h  
Participatory Sessions: 10 h  
Independent work: 50 h  
Tutorials / feedback: 10 h

Course contribution to the programme:  
The course contributes to the programme by helping students to:

1. Master the basic language related to the world of business, through an in-depth knowledge of the fundamental concepts and tools of management in the area of operations.  
2. Develop the abilities needed for a comprehensive general overview of organisations and the environment in which they move, beyond their functional aspects. To achieve this, the course will attempt to show the points where the various functional areas converge and interrelate, particularly with Marketing, Finance and Design.  
3. Demonstrate thoroughness, a critical mindset and creativity in the application of knowledge and skills needed to carry out professional activity in the various areas of business management. To achieve this, the course encourages the critical assessment of readings and active participation in case study analysis.  
4. Become able to contribute, from the functional angle, to the company's overall strategy, with an international vision of the organisation. To achieve this, the course bases the definition of operations strategy on competitive strategy, and the students use this focus for the resolution of case studies.

Course learning objectives:  
- To understand the function of Operations as an organisational area that transforms input into output, creating value for the end customer.
- To know the current focus of Operations Management, which includes Production, Logistics, Quality and Innovation.
- To learn how Operations can create value in industrial and service companies (through more efficiency, quality, product/service innovation and so on.)
- To define Operations Strategy on the basis of Competitive Strategy.
- To see the points where Operations Management meets other company areas.
- To develop management by process.
- To identify areas of improvement and to bear in mind the key questions to ensure successful implementation.

Skills developed:
- Working in groups, collaborating actively and supportively to achieve agreed objectives.
- To compare/apply knowledge and skills acquired during the theory classes in the participatory/practical classes (case study analysis).
- To synthesise their proposals or analysis, and communicate them in oral presentations adapted to the specific objectives and the characteristics of the audience.

Contents and methodology:
PART I. How to COMPETE in Operations

Theme 1. Reintegration of Operations Strategies
Objectives
- To define operations strategy according to competitive variables
- To identify the most appropriate production process according to the product and the competitive variables
- To learn how to discuss, comment and have a critical opinion on a reading

Contents
- Operations Strategy
- Structural and infrastructural decisions
- Product lifecycle and production processes
- Product-process matrix

Activities
- Introduction to the Professor
- Work in groups: comment on the competitive variables of a number of businesses and their affect on Operations

Materials
- Notes

Theme 2. Application of Operations Strategy
Objectives
- To understand the challenges of management
- To understand the aspects that differentiate an Operations Strategy in a service business

Contents
- Challenges of application
- Type of service
- Classification of services (intensity of workforce/degree of interaction-customisation) and management challenges
- Aspects that differentiate the operations strategy in services

Activities
- Introduction to Professor
- Analysis of ALASKA AIRLINES case study

Materials
- Notes

PART II. How to MANAGE operations by adjusting to the demands of the CLIENT and the ENVIRONMENT

Theme 3. Developing new products, processes and services

Objectives
- To become aware of the fact that modern Operations Management begins with product design
- To understand the different stages of a new product development project
- To learn how to manage a new product development project
- To understand what the communality of components is and what the benefits are

Contents
- DNP: the beginning of modern management
- Stages
- Project management
- QFD
- Communality of components

Activities
- Introducing the Professor
- Analysis of the COMMERCE BANK case study

Materials
- Notes
- Reading: New Product Development
- Reading: Spak Innovation

Theme 4. Operation planning: Deciding what, when and how much to produce/serve

Objectives
- To understand why planning is necessary
- To understand that planning in services involves management of demand and/or capacity
- To know which demand or capacity management tools the service companies can use
- To recognise the advantages of a formal planning system
- To know which tools can be used for planning (1) independent demand articles and (2) dependent demand articles
- To distinguish the various planning levels
- To recognise the importance of accuracy of information
- To know what ERP is, and how it is connected to the MRP system

Contents
- Planning: What for?
- Service planning
- Demand management, capacity management and yield management
- From an informal planning system to the MRP system
- Planning independent demand articles
- Planning dependent demand articles
- Accuracy of records

Activities
- Introducing the Professor
- Analysis of the MONGOLIAN GRILL case study
- Planning exercises

Materials
- Notes

Theme 5. Lean Operations – Designing JIT processes

Objectives
- To understand what the JIT philosophy is aiming for
- To identify the JIT tools
- To understand how the principles of product and process improvements are applied in JIT
- To understand what SMED, why it is necessary to JIT and how to achieve it
- To be aware of the importance of staff flexibility, total productive maintenance and quality
- To know what Kanban and production levelling are, and what they are for
- To understand the implications of JIT in relations with suppliers

Contents
- Introduction to JIT
- Basic JIT tools
  o Product improvement and simplification
  o Process improvement and simplification
  o SMED
  o Total Productive Maintenance
  o Staff flexibility and participation
  o Levelled planning
  o Kanban
  o JIT with suppliers
  o Quality

Activities
- Introducing the Professor
- Analysis of the BOEING case study
- Company visit

Materials
- Notes
Theme 6. Introduction to quality Management and Total Quality

Objectives
- To understand what quality control is
- To know how to make and interpret control graphs
- To know how to calculate the capacity of a process, and to understand what it means
- To know the Six Sigma concept
- To be aware that quality is more than the quality control seen in the previous session
- To understand the various focuses of quality
- To know what the Juran Trilogy is
- To know the cornerstones of Total Quality, and how to implement them in a (service or industrial) company
- To know the ISO 900 and EFQM models

Contents
- Introduction to quality management
- Quality control
- Statistical Process Control
- Control graphics
- Process capacity
- Six Sigma
- Strategic quality management
- Quality focuses
- Juran Trilogy
- Total Quality
- Service quality. Quality models

Activities
- Introducing the Professor
- Analysis of the BLUE MOUNTAIN case study
- Quality control exercises

Materials
- Notes

Theme 7. Environmental management

Objectives
- To know what sustainable development aims to achieve
- To identify how to be sustainable in Operations
- To understand what tools are available to be sustainable in Operations: ISO 14001, eco-design, eco-auditing and so on.

Contents
- Sustainable development
- Evolution of environmental management
- Systems of environmental management
- The ISO14000 standard
- Product design
- Eco-auditing
- Environmental risk
Activities
- Introducing the Professor
- Discussion of mini-case studies in groups
Materials
- Notes

In the practical sessions throughout the course, work will be done to achieve the following competences:
- Working in groups, collaborating actively and supportively to achieve agreed objectives.
- Compare/apply knowledge and skills acquired in the theory classes to business practicals (business project and case study analysis).
- To synthesise their proposals or analysis, and communicate them in oral presentations adapted to the specific objectives and the characteristics of the audience.

**Evaluation:**
The competences assessment system uses a range of tools such as exams (partial and final), participation in class debates, carrying out the preparation activities before the class-based sessions and the submission of texts that demonstrate the student’s ability to analyse and interpret real business situations (case studies).

Participation in the practical classes 20%
Case study reports 30%*
Final exam 50%

* Adjusted on the basis of peer evaluation

In all cases, the assessment is seen as a tool that is not only summative but also educational, so the faculty focuses on the evaluation of students’ progress as a process that must be measured continuously throughout the course.
Grades are given from 0 to 10.

**Core bibliography:**