TEACHING GUIDE - 2026-2027

Operations I

UGRA_007201

Departments	Operations, Innovation and Technology Management (OITM)
Teaching Languages	English
ECTS	6
Teacher responsible	Cristina Sancha Fernández - cristina.sancha@esade.edu

Course Goals

By the end of this course, students will be able to:

- CLO1. Explain the role of Operations Management in creating value for stakeholders and achieving organisational performance in manufacturing and service environments.
- CLO2. Analyse how operational capabilities such as cost, quality, delivery, and flexibility support business strategy and competitive advantage.
- CLO3. Apply operations management concepts, frameworks and quantitative tools to analyse operational problems related to process design, capacity management, planning, quality and projects.
- CLO4. Evaluate alternative operational decisions and recommend appropriate courses of action based on operational and strategic criteria.
- CLO5. Assess the impact of technology and innovation on operational processes and organisational performance.
- CLO6. Evaluate the sustainability implications of operational decisions and identify opportunities to improve environmental and social performance through operations management practices.
- CLO7. Work effectively in teams to analyse operational challenges and communicate evidence-based recommendations.

Previous knowledge

Students are expected to have:

- A general understanding of firms and organizational structures, as covered in the Organizations, Structure and Culture course.
- Basic statistical knowledge from previous statistics courses, including familiarity with fundamental statistical concepts and data analysis techniques (covered in Descriptive Statistics and Probability and Statistics and Data Analysis for Decision Making course).

Prerequisits

No prerequisits. Please see "Previous Knowledge" section.

Teaching methodology

The course follows an active learning methodology designed to promote engagement, critical thinking and practical application of concepts. A combination of the following learning activities will be used throughout the course:

Lectures and Learning Materials
Students will be provided with slides, videos, readings and supporting materials to facilitate preparation before class. Lectures will introduce key concepts, frameworks and analytical tools and will provide the foundations required for class discussions and practical applications.

Applied Business Challenges
The course adopts an experiential learning approach that combines case discussions and/or industry-based challenges. Through these activities, students will engage with real operational situations, analyse business problems, apply managerial frameworks and develop actionable recommendations. Both case studies and practitioner challenges provide opportunities to connect theory with practice, strengthen analytical and decision-making skills, and understand how operations management concepts are applied in contemporary organisations.

Quantitative Exercises and Applications
Several topics require the application of analytical techniques and quantitative tools. Practice exercises will be provided to help students develop problem-solving skills and gain confidence in the use of operations management methodologies.

Team Project
Students will complete a team-based project focused on the analysis and improvement of an operational problem. The project will require students to integrate concepts from different parts of the course and develop evidence-based recommendations.

Description

Course contribution to program

Operations I provides a foundational understanding of how organisations design, manage and improve processes that create value. As an introductory course within the Operations Management area, it contributes primarily to students' ability to analyse business problems using managerial tools (PLO1) and to propose operational solutions to organisational challenges (PLO4). The course also introduces students to the strategic role of operations (PLO3) and the growing importance of technology and innovation in business environments (PLO2).

Short description

Operations Management is concerned with the design, management and improvement of the processes through which organisations create and deliver

products and services. Regardless of industry, operations play a central role in achieving organisational objectives, creating customer value and sustaining competitive advantage.

This course provides an introduction to the fundamental principles of Operations Management. It examines how organisations make operational decisions that influence efficiency, quality, flexibility, innovation and sustainability. Students will develop an understanding of how operations contribute to business performance and how operational capabilities support strategic objectives.

The course is structured around two broad categories of operational decisions. First, students will analyse hardware decisions, which shape the physical and structural configuration of operations, including process design, capacity management and project management. Second, students will explore software decisions, which govern the planning, control and continuous improvement of operations, including planning systems, quality management and lean management.

Throughout the course, students will be exposed to business challenges and will learn how operations managers use analytical tools and managerial frameworks to make informed decisions. Particular attention will be given to the role of technology, innovation, sustainability and performance measurement as key drivers of operational excellence in contemporary organisations.

The course combines conceptual foundations, quantitative analysis and case discussions to provide students with a solid foundation for future studies in operations and business analytics.

Program Learning Objectives

BBA25-Bachelor of Business Administration (BBA)

- Global Mindset and Perspective
  - Propose strategic actions aligned with the objectives of companies and organisations that take into consideration the complex global environment in which decisions are made, including their global impact.
- General Management Skills
  - Apply fundamental concepts and tools from different business management disciplines to explain a business-related problem.
  - Propose solutions from the perspective of the different functional areas by applying knowledge and tools of business management.
- Technological Savviness
  - Identify the role technology plays in society and the business

environment.

Bibliography

Slack, N., Brandon-Jones, A. and Burgess, N., Operations Management (11th Edition), Pearson Education. (Book)

Activities

Analytical exercises

Written and/or oral exams

Teamwork

Quizzes/tests

Group presentations

Case study resolution

Content

#	Topic
1	Introduction to Operations Management, Operations Management and Innovation
2	Process Design
3	Capacity and Theory of Constraints
4	Waiting Lines
5	Planning
6	Quality Management
7	Lean Management
8	Innovation Management
9	Project Management

Assessment

Tool	Assessment tool	Category	Weight %
Quizzes/tests		Retake and ordinary round	25.00%
Written and/or oral exams		Retake and ordinary round	40.00%
Other	Participation	Retake and ordinary round	10.00%
Group project		Retake and ordinary round	25.00%

PROGRAMS

BBA25-Bachelor of Business Administration (BBA) (Undergraduates: Business)

BBA25 Year 2 (Mandatory)

DBAI25-Double Degree in Business Administration and Business and Artificial Intelligence (Undergraduates: Business)

DBAI25 Year 2 (Mandatory)

GBL25-Double Degree in Business Administration and Global Governance, Economics and Legal Order (Undergraduates: Business)

GBL25 Year 2 (Mandatory)