



Course guide

205051 - 205051 - Facilities Management

Last modified: 30/04/2024

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 758 - EPC - Department of Project and Construction Engineering.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).
MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Optional subject).
MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Optional subject).

Academic year: 2024 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Núria Forcada Matheu

Others: Molins Foj, Marc

TEACHING METHODOLOGY

Lecture: Lecturers present concepts, principles and techniques, with the active participation of students.

Problem Based Learning: Lecturers and students resolve exercises and standard problems through specific techniques related to the theoretical contents and principles of the course.

Project Based learning: Students resolve complex problems through specific techniques related to the theoretical contents and principles of the course.

Self-study: Students diagnose their learning needs, in collaboration with the lecturers, and plan their own learning process.

LEARNING OBJECTIVES OF THE SUBJECT

The course Facilities Management provides the knowledge, tools and skills needed for successful coordination and management of space, infrastructure, people and real estate decisions within the organizations. This course includes operations and maintenance, strategic planning, commercial real estate, project management, space planning and construction management.

STUDY LOAD

Type	Hours	Percentage
Hours large group	27,0	36.00
Self study	48,0	64.00

Total learning time: 75 h



CONTENTS

Module 1: Facilities Management: areas and functions

Description:

The goal of this module is to determine the strategic role of facility management in supporting the core activities of a building on the operational aspects of the built environment and examine the influence of facilities management practices on corporate strategy, procurement, human resource management and financial decision making. This module will also address basic knowledge and operational skills required for the good management of buildings, their environments, facilities, support services and personnel.

Related activities:

Distance and in-class activities
Group project
Individual work

Full-or-part-time: 16h

Theory classes: 6h
Self study : 10h

Module 2: Space Planning and Management

Description:

The aim of this module is to understand how buildings and the space configuration within them support the strategic objectives of the organization.

This module covers the best practices for developing and implementing design strategies, defining project requirements and anticipating the changing needs of an organization that could be effected by the building design in the future.

Related activities:

Distance and in-class activities
Group project
Individual work

Full-or-part-time: 16h

Theory classes: 6h
Self study : 10h

Module 3: Asset Management

Description:

The aim of this module is to understand the fundamentals of Asset Management, as much when the company makes large investments in equipment and machinery as when maintaining and operating them in accordance with the own business objectives and the ones of its stakeholders. Both a business vision and technical aspects will be addressed.

Related activities:

Distance and in-class activities
Group project
Individual work

Full-or-part-time: 16h

Theory classes: 6h
Self study : 10h



Module 4: Energy management for Facility Managers

Description:

The aim of this module is to present the tools and techniques to effectively manage energy in a building. Energy efficiency, energy monitoring and management and environmental certification systems will be presented in this module.

Related activities:

Distance and in-class activities
Group project
Individual work

Full-or-part-time: 16h

Theory classes: 6h
Self study : 10h

Module 5: Other supporting and integrating technologies

Description:

The goal of this module is to present different technologies to support and integrate Asset and Facility Management within the organizational structure of the company such as Enterprise Asset Management Systems (EAMS) or Building Information Modelling: O&M phase (BIM).

Related activities:

Distance and in-class activities
Group project
Individual work

Full-or-part-time: 11h

Theory classes: 3h
Self study : 8h

GRADING SYSTEM

The final grade depends on the following three elements:

- * 20%, Distance and in-class activities
- * 40%, Group project
- * 40%, Individual work

BIBLIOGRAPHY

Basic:

- Collado, Víctor; Montoya, Gonzalo; Sanz, Jesús. Manual de gestión valor añadido de facility management. 2ª ed. Madrid: IFMA España, 2019.
- Facility management [on line]. -. PMM Institute of Learning, 2016 [Consultation: 29/04/2024]. Available on: <https://www.pmmlearning.com/wp-content/uploads/2020/08/Servivios-PMM-Learning-Facility.pdf>.
- Rondeau, Edmond; Brown, Robert K.; Lapedes, Paul. Facility management [on line]. 2nd ed. Hoboken, N.J: John Wiley & Sons, 2006 [Consultation: 28/05/2024]. Available on: <https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?pq-origsite=primo&docID=699985>. ISBN 9780471700593.