



**Education for zero
energy Buildings using
Building Information
Modelling**

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Learning Unit 11



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NEARLY ZERO ENERGY BUILDING FACILITY MANAGEMENT

EQF	5-6	Target	Facility manager Consultant Technicians Specialist in green building
Description			

The following learning unit provides you with knowledge to improve efficiency during facility management. Preventing and anticipating future problems or improvements and documenting them in a digital communication system between the design team and the facility team is essential. This learning unit will give you the knowledge to understand the building parameters to consider in order to guarantee its nZEB qualification during its use, like spaces and users schedules, climate control changes, etc.

Objectives

- Diagnose and improve energy efficiency during the facility management.
- Implement tools and techniques for communication with users to collect suggestions.
- Validate and carry out preventive efficiency controls.

Generic competence

- Knowledge, understanding and ability to apply the necessary legislation during the project.
- Discipline following the project's workflow.
- Ethical commitment and environment sensitivity.
- Self-management and/or management and supervision of work patterns.
- Cognitive and practical skills to perform tasks related to the process of designing energy saving buildings.
- Ability to apply construction procedures and work planning techniques.
- Motivation for quality and improvement.



Specific competence

- Facility or asset performance checking to confirm it is working at optimal expectations and as designed.
- Linking asset data to the model for facility management.
- Collect, manage and disseminate documentation, graphical models and non-graphical data for the whole facility team in a Common Data Environment (CDE).
- Utilise validation tools and processes to establish field verified models for facility management.
- Establish the information framework required to assist communication and collaboration from Construction – Operation for asset management.
- Establish the coordination framework required from Construction – Operation by using data inputs and model structure to organise modelling elements efficiently.
- Identify interdisciplinary teamwork towards common goals.
- Ensure optimal use of different energy production systems.
- Communicate the appropriate use and maintenance of different energy production systems.
- Instruct the facility manager on running and maintaining the buildings energy performance.
- Ensure optimal maintenance of materials and technologies.
- Communication with suppliers and facility employers on energy performance.
- Instruct users and facility managers on energy performance of the building.
- Monitor building performance.

Recommended learning methodology

Methodology

The recommended methodology for the course would be Gamification, is based on the application of elements of games (non-playful context), in order to influence the behaviour of people from the stimulation of their motivation.



In addition, another recommended methodology would be Problem Based Learning, is based on group learning that uses real problems as a stimulus to develop skills in problem solving and acquire specific knowledge.

Method

Use of simulation-oriented learning method, group work and group dynamics for the acquisition of the ability to create a good workflow.

Recommended assessment methodology

The recommended assessment methodology would be the resolution of practical cases and the realization of tests destined to evaluate the knowledge.
