Universidad Zaragoza

Academic Year/course: 2023/24

28639 - IT and Communication for Construction

Syllabus Information

Academic year: 2023/24
Subject: 28639 - IT and Communication for Construction
Faculty / School: 175 - Escuela Universitaria Politécnica de La Almunia
Degree: 422 - Bachelor's Degree in Building Engineering
ECTS: 5.0
Year: 3
Semester: Second semester
Subject type: Optional
Module:

1. General information

The subject and its expected results respond to the following approaches and objectives:

The general goal of this subject is for the student to acquire the necessary knowledge and skills on the information and communication technology, associated with building.

In addition, it is necessary to train the student in the installation, configuration, customization and efficient use of specific software tools/applications.

The aim is to provide students with the ability to make decisions in changing contexts, as BIM is transforming the business models related to the sector, and in an autonomous and collaborative way.

2. Learning results

- Acquire sufficient knowledge for the use and application of computer tools that allow the practical resolution of the parts of a technical project, its execution and life cycle
- Understand the workflow and technologies available to implement the BIM methodology
- Obtain, with ICT support, and analyze and handle with sufficient fluency, the ISO 19650 BIM standard.
- Know the workflow and technologies available to implement the LEAN Construction methodology Implement agile methodologies in construction project management processes.
- Teamwork.

3. Syllabus

1- Theoretical contents.
- Introduction to information management. BIM methodology.
- Sources of information specialized in the building sector.
- UBIM Guidelines - Norms and Standards (ISO 19650)
- Advanced information management

2- Practical contents.
- Information management tools. They learn the installation, configuration and use of tools and procedures for the management and edition of information.
- Specific BIM tools. They will learn how to correctly select the right tool for the right job process or project phase.

3- Seminars.
- Seminar 1 BIM design tools
- Seminar 2 BIM management tools
- Seminar 3 Programming and Parameterization Tools

*The content of the seminars may change depending on other needs that arise during the term.

4. Academic activities

Generic face-to-face activities:

- Theoretical classes: Theoretical concepts of information systems will be explained and current and representative sourceswill be researched on the Internet to support the theory when necessary.
- Practical classes: The basics of the computer applications to be used will be explained and practical casesfor their implementation.

Generic non face-to-face activities:

- Study and assimilation of the theory presented in the lectures.
- Understanding and assimilation of practical cases solved in the practical classes.
- Resolution of proposed problems, etc.
- Preparation of continuous assessment tests and final exams.

5. Assessment system

The weekly schedule of theoretical and practical contents will be published in Moodle at the beginning of the semester

- Assessment test I (week 3)
- Assessment test II (week 6)
- Assessment test III (week 9)
- Assessment test IV (week 12)

The dates of the final tests will be published officially on the following web site
http://www.eupla.es/secretaria/academica/examenes.html

In the global assessment system, the deadlines for the required tests or assignments will be published in Moodle, prior to the official call date.