

30203 - Mathematics II

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura 326 - Escuela Universitaria Politécnica de Teruel
Degree	439 - Bachelor's Degree in Informatics Engineering 443 - Bachelor's Degree in Informatics Engineering
ECTS	6.0
Course	1
Period	First semester
Subject Type	Basic Education
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The methodology of the course is based on:

- Lectures.
- Problem solving.
- Computer lab sessions using mathematical software.

5.2. Learning activities

In order that students get the learning outcome, the following learning activities are offered:

30203 - Mathematics II

1. Lectures and problem solving

One of the main resources in order a student gets the corresponding learning outcome are lectures mixed with problem solving.

2. Computer lab sessions

Students spend parts of their time doing a wide range of computer lab work in small groups.

3. Problem solving for each topic in the program

Students, divided into small groups, will solve a set of problems for each topic in the program. Feedback on assessment will be provided.

4. Continual assessments (written exams)

5. Tutorial

6. Final exams

5.3. Program

This is a typical matrix-oriented module of Linear Algebra for Engineers.

Outline:

- Algebraic structures
- Matrix Algebra: Matrices, determinants and linear systems of equations
- Vector spaces
- Orthogonality
- Linear transformations
- Eigenvalues, eigenvectors and diagonalization of matrices
- Numerical methods for linear systems

5.4. Planning and scheduling

Schedule of classes is established by EINA and EUP de Teruel, and it will be published before starting the academic year.

Each Professor will provide a schedule for tutorial.

30203 - Mathematics II

Other activities will be scheduled according to the number of students and will be announced in advance (<http://add.unizar.es>).

5.5. Bibliography and recommended resources