29805 - Mathematics III

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

CAMPUS RIO EBRO

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

4. Final exams

CAMPUS DE TERUEL
In order that students get the learning outcome, the following learning activities are offered:
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
- Differential equations of first order.
- Linear differential equations.
- Numerical mehtods for intial value problems and boundary value problems.
- Power and Fourier series.
- Laplace's equation.
- The wave equation.
- The heat equation.
- Finite difference method for intial value problems and boundary value problems.

5.4.Planning and scheduling

Schedule of classes is stablished by EINA and EUP de Teruel, and it will be published before starting the academic year.
Each Professor will provide a schedule for tutorial.
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 recomended resources