

**Partial differential equations**

Code: 100119  
ECTS Credits: 6

Degree	Type	Year	Semester
2500149 Mathematics	OT	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

**Contact**

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**Use of Languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Teachers**

Angel Calsina Ballesta

**Prerequisites**

(See the catalan official version)

**Objectives and Contextualisation**

(See the catalan official version)

**Competences**

- Actively demonstrate high concern for quality when defending or presenting the conclusions of ones work.
- Apply critical spirit and thoroughness to validate or reject both ones own arguments and those of others.
- Assimilate the definition of new mathematical objects, relate them with other contents and deduce their properties.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
- Understand and use mathematical language.

**Learning Outcomes**

1. Actively demonstrate high concern for quality when defending or presenting the conclusions of ones work.
2. Apply critical spirit and thoroughness to validate or reject both ones own arguments and those of others.
3. Know how to demonstrate the results of partial derivative equations and dynamical systems.
4. Know how to solve certain theoretical problems and be understand the existence of certain open problems in the theory of partial derivative equations and dynamical systems theory.
5. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
6. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
7. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

## Content

(See the catalan official version)

## Methodology

(See the catalan official version)

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	30	1.2	
Type: Supervised			
Problem sessions and working seminars	21	0.84	
Type: Autonomous			
Problem solving	34	1.36	
Studying theoretical concepts	50	2	

## Assessment

(See the catalan official version)

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
First partial exam	40%	4.5	0.18	2, 4, 1, 7, 6, 5, 3
Second partial exam	40%	4.5	0.18	2, 4, 1, 7, 6, 5, 3

**Bibliography**

(See the catalan official version)

**Software**

No specific software will be used