

**Current Mathematical trends**

Code: 100127  
ECTS Credits: 6

Degree	Type	Year	Semester
2500149 Mathematics	OT	4	A

**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**

Rosario Delgado de la Torre  
Armengol Gasull Embid  
Maria Jolis Giménez  
Francesc Perera Domènech  
Natalia Castellana Vila  
Gil Solanes Farrés

**Prerequisites**

It is recommendable to have completed the third year of the Bachelor degree in Mathematics

**Objectives and Contextualisation**

The objectives of this subject are:

- To introduce the future graduates with important results of Mathematics
- As a complement to the standard teaching, the students will get used to
- To give an updated view of mathematics.
- To learn to write mathematical works, both for its content and presentation

**Competences**

- Actively demonstrate high concern for quality when defending or presenting the conclusions of ones work.

- Assimilate the definition of new mathematical objects, relate them with other contents and deduce their properties.
- Develop critical thinking and reasoning and know how to communicate it effectively, both in ones own languages and in a third language.
- Effectively use bibliographies and electronic resources to obtain information.
- Generate innovative and competitive proposals for research and professional activities.
- Identify the essential ideas of the demonstrations of certain basic theorems and know how to adapt them to obtain other results.
- Respect the diversity and plurality of ideas, people and situations
- 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 be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

## Learning Outcomes

1. Actively demonstrate high concern for quality when defending or presenting the conclusions of ones work.
2. Critically follow the arguments exposed by others.
3. Develop critical thinking and reasoning and know how to communicate it effectively, both in ones own languages and in a third language.
4. Devise mathematical strategies and objectives when faced with new problems or challenges from different fields of mathematics or from science and society in general.
5. Effectively use bibliographies and electronic resources to obtain information.
6. Generate innovative and competitive proposals for research and professional activities.
7. Read advanced mathematics textbooks in English.
8. Respect the diversity and plurality of ideas, people and situations
9. 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.
10. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
11. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
12. Understand the essence of an informative but specialised conference on mathematics.

## Content

The content will vary annually depending on the teachers involved. The different areas of mathematics will be rep

## Methodology

The two hours per week will be devoted to mini-courses taught by the teaching team of the subject.

Each student will present an essay on one of the mini courses that will be

## Activities

Title	Hours	ECTS	Learning Outcomes
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Type: Directed

Attending to the talks	60	2.4
Type: Autonomous		
Personal Work	90	3.6

## Assessment

The evaluation of the subject is structured in the following way:

Class attendance is mandatory and in any case must be greater than 80%  
 Each lecturer will evaluate the work of the students that he/she has supervised

c) Quality of the writing and d) presentation of the work.

At the end of the course, the coordinator of the subject will assign a topic

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral Exam	0,10	0	0	3, 12, 11, 9
Short talk	0,40	0	0	3, 12, 11, 8, 2
Written work	0,50	0	0	1, 3, 4, 6, 7, 11, 10, 9, 5

## Bibliography

It does not apply