

Current Mathematical trends

Code: 100127
ECTS Credits: 6

Degree	Type	Year	Semester
2500149 Mathematics	OT	4	A

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

Rosario Delgado de la Torre
Armengol Gasull Embid
Francesc Perera Domènech
Martí Prats Soler
Roberto Rubio Nuñez
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.
- Effectively use bibliographies and electronic resources to obtain information.
- Identify the essential ideas of the demonstrations of certain basic theorems and know how to adapt them to obtain other results.
- 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. Devise mathematical strategies and objectives when faced with new problems or challenges from different fields of mathematics or from science and society in general.
3. Differentiate the different stages of formation of the main areas of mathematics (algebra, arithmetic, analysis, geometry, etc.) and know how to discuss the relevance of this grouping.
4. Effectively use bibliographies and electronic resources to obtain information.
5. Read advanced mathematics textbooks in English.
6. 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.
7. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
8. Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
9. 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
Type: Directed			
Attending to the talks	60	2.4	
Type: Autonomous			

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	
Short talk	0,40	0	0	1, 3, 2, 9, 5, 8, 7, 6, 4
Written work	0,50	0	0	

Bibliography

It does not apply