Universitat Autònoma de Barcelona

2020/2021

Modelling workshop

Code: 100099
ECTS Credits: 9

Degree	Type	Year	Semester
2500149 Mathematics	FB	2	2

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

Rosa Camps Camprubí
Natalia Castellana Vila

Prerequisites

(See the official version in catalan)

Objectives and Contextualisation

(See the official version in catalan)

Competences

- Apply critical spirit and thoroughness to validate or reject both ones own arguments and those of others.
- 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.
- Recognise the presence of Mathematics in other disciplines.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- When faced with real situations of a medium level of complexity, request and analyse relevant data and information, propose and validate models using the adequate mathematical tools in order to draw final conclusions
- Work in teams.

Learning Outcomes

1. Analyse a situation and identify points for improvement.
2. Apply critical spirit and thoroughness to validate or reject both ones own arguments and those of others.
3. Contrast the solution obtained, after resolving the model, in terms of its adaptation to the real phenomenon.
4. Develop the capacity to identify and mathematically describe a problem, structure the available information and select an adequate model.
5. Effectively use bibliographies and electronic resources to obtain information.
6. Identify situations that require changes or improvements.
7. Identify the social, economic and environmental implications of academic and professional activities in the area of your knowledge.
8. Propose new experience-based methods or alternative solutions.
9. Propose viable projects and action which can promote social, economic and environmental benefits. Propose way of evaluating projects and actions to improve sustainability.
10. Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
11. Work in teams

Content

(See the official version in catalan)

Methodology

(See the official version in catalan)

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	15	0.6	
Type: Supervised			
Team working seminars	60	2.4	
Type: Autonomous			
Personal work	148	5.92	

Assessment

(See the official version in catalan)

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral presentations	25%	2	0.08	1, 2, 3, 4, 7, 6, 8, 9, 10, 11, 5

Written memoir and a possible exam on the team project	45%	0	0	1, 2, 3, 4, 7, 6, 8, 9, 10, 11, 5
Written memoir on the individual project an¡d other possible individual submissions	30%	0	0	1, 2, 3, 4, 7, 6, 8, 9, 10, 11, 5

Bibliography

(See the official version in catalan)