UAB
Universitat Autònoma de Barcelona

Bachelor's Degree Final Project

Code: 104411
ECTS Credits: 12

2025/2026

Degree	Type	Year
Computational Mathematics and Data Analytics	TFE	4

Contact

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Teaching groups languages

You can view this information at the end of this document.

Prerequisites

The rules of permanence establish a minimum of 160 ECTS of the degree passed to be able to enroll in the Final Project.

Objectives and Contextualisation

The Bachelor's Thesis (TFG) is a 12-credit (300-hour) course taken in the fourth year. It is the only mandatory course of the year, and all students are required to complete an academically oriented project. The learning activities of the TFG include the development of a written report and the preparation of its public defense. It is not required for the TFG to contain original results. The work will include a literature review and an experimental component in the broadest sense (calculations, fieldwork, data collection, market research, or other activities). The main objective of the Bachelor's Thesis is for students to demonstrate that they have achieved sufficient maturity in all the competencies of the degree program.

Learning Outcomes

1. CM54 (Competence) Present the motivation, development and conclusions of the work correctly and with ethical responsibility.
2. CM55 (Competence) Develop the learning skills required to undertake subsequent studies with a high degree of autonomy.
3. KM41 (Knowledge) Identify the essential ideas of the proofs of some basic algebra theorems, adapting them to obtain other results.
4. SM49 (Skill) Effectively use a bibliography and electronic resources to obtain information.
5. SM50 (Skill) Actively demonstrate a high level of concern about the quality of their arguments when making the conclusions of their work public.
6. SM51 (Skill) Distinguish, when faced with a problem or situation, what is substantial from what is purely occasional or circumstantial.
7. SM52 (Skill) Apply critical thinking and rigour to validate or refute one's own and others' arguments.

Content

Bachelor's Theses (TFGs) may have a more theoretical focus (on a topic related to statistics that is not covered in any of the degree courses) or a more practical focus (an in-depth study of a specific problem and/or dataset). In the first case, the work must include examples of practical application of the results studied. In the second case, it must include an adequate theoretical foundation for the results used.

The student and the supervisor will define the content of the TFG at the beginning of the course. The project can be chosen from those proposed by the degree teaching staff or can be proposed by the student, as long as it aligns with a line of interest offered by faculty members from the Departments of Mathematics or Sociology. In both cases, the project must be approved by the degree coordinator.

The length of the TFG may vary, but it is recommended to be between fifteen and thirty pages. The thesis may be written in Catalan, Spanish, or English. The first page must include the title, the author and the supervisor, and the place and dates in which the project was carried out. This should be followed by an abstract written in the same language as the main text, along with its English version. Non-original content must be clearly referenced in the bibliography, which should appear at the end of the document.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Tutorships	15	0.6	
Work completion	225	9	
Type: Autonomous			
Autonomous learning	59	2.36	

Each student produces three materials referred to as: Project, Thesis, and Presentation. All of these materials must be submitted on the Virtual Campus with the supervisor's approval, within the deadlines that will be announced in due course.

Project

When the student reaches an agreement with a supervisor-regardless of how the agreement was initiated-they must write a consensual Project plan, approved by the supervisor, which includes (in total, one or two pages):

1. Title of the Thesis (in sentence case, not all caps, maximum 80 characters).

2. Names of the student and the supervisor.

3. Objectives and outline of the thesis, with references.

This document (in PDF format) must be submitted to the Virtual Campus according to the official calendar. Failure to submit the Project on time will automatically result in a change of examination session; if the student is registered for the February session, they will be automatically moved to the September session.

Alternatively, a student may request a change to a later session in advance, but only once. If registered for the February session, the request must be made no later than December 19, 2025. If changing from the June to the September session, the request must be made no later than May 22, 2026.

Finally, students registered for the September session who do not submit the Project on time will receive a grade of "not presented".

Thesis

The Thesis is the final document (also referred to as the report) that the student submits after completing the entire process. The cover page must include: the Title, Author, Supervisor, and the Date and Place where the work was carried out. This is followed by an Abstract written in the same language as the main text, along with its English version.

The Introduction/Overview must explain the objectives and structure of the thesis, the methodology and sources or materials used, the background state of the topic, the results obtained, and the conclusions drawn.

All non-original content must be clearly cited, with full references included in the bibliography at the end of the document.

Presentation

The Presentation consists of the material the student will prepare to give a 15-minute oral presentation about their Thesis. It must be submitted on the Virtual Campus a few days after the Thesis submission.

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.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Contents	70%	0.5	0.02	CM55, KM41, SM49, SM50, SM51, SM52
Debate	10%	0.15	0.01	CM54, CM55, SM50, SM52
Presentation	20%	0.35	0.01	CM54, KM41, SM50, SM52

See the Catalan version.

Bibliography

Paul R. Halmos. Com cal escriure en matemàtiques. Butlletí de la Societat Catalana de Matemàtiques. Vol. 21, núm. 1, 2006. Pàg. 53-79.
https://raco.cat/index.php/ButlletiSCM/article/view/221239

Software

The Final Degree Project may include using specific software.

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.