

Master's Degree Dissertation

Code: 45456
ECTS Credits: 6

2024/2025

Degree	Type	Year
3500318 Teacher Training for Secondary Schools, Vocational Training and Language Centres	OB	1

Errata

Update of the regular teaching staff at the beginning of the academic year.

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Teachers

(External) Vicenç Font Moll

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

To be able to present the Final Master's Project, you must have passed the practicum module

Objectives and Contextualisation

The TFM is a final reflective work in which the student will have to show, through a public oral presentation in front of a court, that he has acquired the master's set of skills and that enable him to start his performance as a mathematics teacher in a secondary education center.

It is aimed at demonstrating transversal professional achievements, as well as the interrelationship between theoretical and practical knowledge, through the realization of an educational proposal for teaching innovation/improvement, which integrates the various contents worked on in the Master's and applied to the practicums, justified in based on research results and/or innovation and research methodologies.

The Master's Final Thesis (TFM) must allow:

(1) to carry out a transversal work of a large part of the skills provided for in the master

(2) for the student to show that he has acquired the skills of the Master's in Secondary Teacher Training of Mathematics

Learning Outcomes

1. CA17 (Competence) To apply an equity and gender perspective in both the planning and management of the mathematics classroom.
2. CA18 (Competence) To build a professional identity within the framework of the master's degree final project, reflecting on the level of achievement of professional competences.
3. SA15 (Skill) To use evidence and mathematics education theories to analyse teaching actions with a view to enhancing the processes and outcomes of learning mathematics.
4. SA16 (Skill) To analyse strategies of mathematics education that promote the students' capacity to learn by themselves and with others and develop critical thinking and decision making skills that facilitate autonomy, self-confidence and initiative.
5. SA17 (Skill) To analyse evidence and data as part of the process of completing the master's degree final project, with a view to improving professional teaching skills.
6. SA18 (Skill) To demonstrate digital competence as a teacher in mathematics education software and help students use these programs.
7. SA19 (Skill) To demonstrate a command of oral and written expression in both the written portion and oral presentation of the master's degree final project.
8. SA20 (Skill) To integrate a perspective sensitive to the multilingual reality of classrooms and the importance of language as a resource in mathematics, while promoting the use of Catalan as the vehicular language.

Content

The subject is made up of the following blocks of content:

- Elements of reflective analysis of one's own practice in order to identify problems in mathematics education.
- Search for bibliographical references and research results related to the identified problems and use of research techniques in mathematics education.
- Elaboration of a master's final work report that includes an innovative proposal/improvement justified based on results and/or innovation and research methodologies.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Participation in the TFM follow-up general seminar	10	0.4	

Type: Supervised		
Participation in the TFM follow-up seminar	10	0.4
Type: Autonomous		
Written report of the TFM and oral presentation	100	4

It will be ensured that the tutor of the Practical II (PII) and the TFM are the same to guarantee continuity between the internship period and the Master's Final Thesis.

The teaching and follow-up of the Final Master's Thesis will be carried out through seminars with the tutor with the aim of helping the students to organize their reflection between what they have experienced at the secondary school and the knowledge of the master's. The teaching staff will encourage shared reflection between the students doing internships at the same centre.

The TFM will be developed in 4 phases:

- (1) Choice of subject (preferably a justified improvement proposal for your internship period)
- (2) Preparation of work and guidance
- (3) Public defense of the Work
- (4) Evaluation

In addition to the seminar with a TFM tutor, participation in a general seminar aimed at all students in the group is contemplated.

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

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral defense of the TFM	30%	5	0.2	CA17, CA18, SA15, SA16, SA17, SA18, SA19, SA20
Participation in the TFM follow-up seminar	20%	10	0.4	CA17, CA18, SA15, SA16, SA17, SA18, SA19, SA20
Written report of the TFM	50%	15	0.6	CA17, CA18, SA15, SA16, SA17, SA18, SA19, SA20

Requirements to be entitled to the final assessment will be:

Attendance at seminars with the whole group and with the tutor (a minimum of 80% of the sessions).

The delivery of the written Report of the Final Master's Thesis within the established deadlines

The oral defense of this report before a court

Bibliography

The general bibliography of this module is the one provided in all the other modules of the master's degree and, in particular, in the innovation and initiation to research module in Mathematical Education.

In addition, the following references are of interest:

Giménez, J.; Vanegas, Y.; Font, V.; Ferreres, S. (2012). El papel del trabajo final de Máster en la formación del profesorado de Matemáticas UNO. *Revista de Didáctica de las Matemáticas*, 61, 76-86.

Godino, J. D.; Neto, T. (2013). Actividades de iniciación a la investigación en educación matemática. UNO. *Revista de Didáctica de la Matemática*, 63, 69-76.

Goñi, J. M. (ed.) (2011). *MATEMÁTICAS: Investigación, innovación y buenas prácticas*, Barcelona, España, Graó.

Once the topic is selected, the tutor will provide specific references for the selected topic to each student.

Software

The TFM can be edited in word or latex. The tutor will indicate, if necessary, other software to use

Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.