

PROGRAMME INFORMATION



UNIVERSITY MASTER'S DEGREE IN ADVANCED MATHEMATICS

CÓDIGO 215201

UNED

Facultad
de Ciencias

**UNIVERSITY MASTER'S DEGREE
IN ADVANCED MATHEMATICS**

CÓDIGO 215201

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University Master's Degree in Advanced Mathematics

INFORMATION IDENTIFYING THE QUALIFICATION

Name and status of awarding institution

Universidad Nacional de Educación a Distancia.

Public university.

Name of qualification and title conferred in original language

Máster Universitario en Matemáticas Avanzadas por la Universidad Nacional de Educación a Distancia.

Status

National validity.

Approved by Accord of the Council of Ministers on January 22nd, 2010.

Main field(s) of study for the qualification

The study is included in the field of Sciences.

Language(s) of instruction/examination

The degree is taught in Spanish.

INFORMATION ON THE LEVEL OF THE QUALIFICATION

Level of qualification

Level 3 (Master) in the Spanish Framework of Higher Education (MECES) is equivalent to level 7 of European Qualification Framework (EQF).

Official length of programme

The official length of programme is 60 ECTS and 1 year full time.

Access requirements

Bachelor's Degree or Engineering in Mathematics.

INFORMATION ON THE CONTENTS

Mode of study

Blended learning full time.

Programme requirements

The programme of studies is composed 30 elective ECTS and 30 Master's Dissertation ECTS.

Subjects

- Complex Analysis
- Measure Theory
- Functional Analysis
- Differential Geometry
- Riemann Surfaces
- Operators on Banach Spaces
- Advanced Linear Algebra
- Topology
- Combinatorics of Colourings
- Non-linear Analysis of PDEs
- Geometric Analysis and Applications
- Ordinary Differential Equations and Dynamical Systems
- Quantum Information
- Introduction to Numerical Methods in Variational Problems
- Optimization in Banach Spaces
- Convex Optimization in Data Science
- Mathematical Statistics in Data Science
- Applied Topology
- Master Project

Grading scheme

In the Spanish university system, modules/courses are graded on a scale of 0 to 10 points with the following qualitative equivalence:

0-4.9: "suspenso"; 5-6.9: "aprobado"; 7-8.9: "notable"; 9-10: "sobresaliente". A special mention, "Matrícula de Honor" may be granted to up to 5% of the students in a group provided they have got a "sobresaliente". To pass a module/course it is necessary to get at least 5 points.

In cases of recognition of ECTS or student representation no grading will be recorded but, where appropriate, the word "Apto".

INFORMATION ON THE FUNCTION OF THE QUALIFICATION

Access to further study

This qualification gives access to Doctoral studies, provided that the student has completed a minimum of 300 ECTS in the overall teachings of Bachelor and Master.

Stated objectives associated with the qualification and professional status (if applicable)

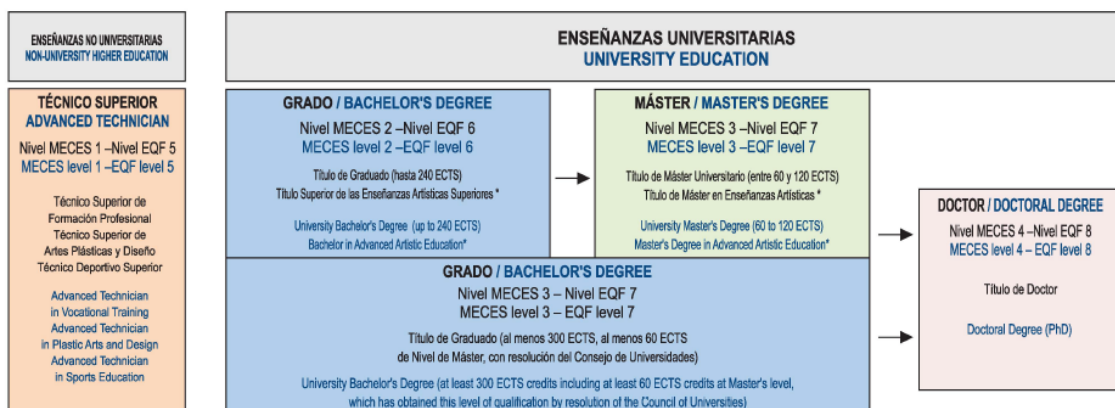
The main aim of this degree is provide advanced mathematical training. Introduce the student in mathematical research.

The main learning outcomes and competencies acquired are: Advanced knowledge in one of the three of the main fields of mathematics; ability to deal with scientific literature on several levels; ability to communicate the results in specialized environments; sufficient scientific competence for incorporation into active research groups; ability to apply mathematical methods and techniques to various problems of reality.

ADDITIONAL INFORMATION

<https://www.uned.es>

INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM



* Las enseñanzas Artísticas Superiores son Enseñanzas no Universitarias dentro del Sistema Educativo español de Enseñanza Superior

* Advanced Artistic Education is non-university education within the Spanish Higher Education System