



# Universidade de Évora

## Edital

Applications for Admission to the Ph.D. Program in  
Mathematics  
Academic year 2021/2022

### 1. The program is promoted by:

Universidade de Évora - Instituto de Investigação e Formação Avançada

### 2. Program Coordination:

Feliz Manuel Barrão Minhós (fminhos@uevora.pt)  
Maria Manuela Melo Oliveira (mmo@uevora.pt)  
Vladimir Alekseevitch Bushenkov (bushen@uevora.pt)

### 3. Program description:

Advanced training in theoretical and applied mathematics with emphasis on Algebra and Logic (logic, non-standard analysis, algebra, number theory, cryptography), Analysis (differential equations, calculation of variations and optimal control, optimization, dynamical systems, numerical applications) and Statistics (statistics, operational research, probabilities). During the thesis, an in-depth study of a part of mathematics and / or its applications is required in order to overcome the frontier of mathematical knowledge in solving the unsolved problem and / or in initiating a new theory. Ability to formulate new mathematical concepts and / or mathematical modeling in one of several application contexts, in-depth knowledge and assimilation of parts of advanced mathematical theory, to successfully use computerized means, to interpret and transmit mathematical results of scientific texts, to present results of own research, write scientific articles published in prestigious scientific journals.

### 4. Specialization areas:

- Algebra and Logic (**not available**)
- Analysis (**not available**)
- Statistics (**not available**)
- Mathematics and Applications (**available**)

### 5. Career opportunities:

Teaching in national or international higher education institutions; scientific research career in national or international centers; senior executives of companies or public institutions in the sphere of Mathematical applications such as: Banks, Insurance, Consultants, Data Analysis, Statistical Analysis.

## 6. Number of registration at DGES:

R/A Ef 1804/2011/AL01

## 7. Number of accreditation process by A3ES:

ACEF/1920/0313217

## 8. Program Creation Norm:

Diário da República n.º 62 de 30 de março de 2016, Aviso n.º 4328

## 9. General conditions of access and admission:

### i Legal conditions for access to the cycle of studies leading to the «Doutor» degree (Ph.D. degree)

The following individuals can apply for a cycle of studies to the «Doutor» degree (Ph.D. degree):

- holders of a Portuguese Mestre degree (Master degree) or legal equivalent;;
- holders of an undergraduate degree holding a specially relevant academic or scientific curriculum, which is recognized as attesting capacity to carry out this cycle by the competent scientific committee of the higher education institution where they wish to be admitted;
- holders of an academic, scientific or professional curriculum that is recognized as attesting the ability to carry out this cycle of studies by the competent scientific committee of the higher education institution where they wish to be admitted.

### ii Specific admission conditions

- Masters degree in mathematics or in a scientific area with strong mathematical content.
- Degree in mathematics, with a particularly relevant academic or scientific curriculum in the area of mathematics.
- Other applicants may be admitted, in cases duly justified by academic, scientific and professional curricula in the area of mathematics.

## 10. Selection Process:

- Academic qualifications: 40%
  - Training in Mathematics: 50%
  - Area of qualifications: 30%
  - Level of qualifications: 20%
- Curriculum analysis: 40%
  - Scientific publications: 40%
  - Conference Communications: 30%
  - Participation in research projects: 20%
  - Professional Training in the area of the program or related fields: 10%
- Interview: 20%

- Motivation and commitment: 40%
- Specific vocational aptitude: 30%
- Availability: 20%
- Understanding the objectives and professional exits of the program: 10%

## 11. Maximum number of admissions

- Maximum number of admissions for candidates with nationality of European Union countries: 6
- Maximum number of admissions for candidates without nationality of countries of the European Union: 4

Depending on the number of applications, there may be transfer of vacancies from the international students applications to the European Union students applications or vice-versa.

## 12. Tuition fee

- Candidates with nationality of European Union countries: 1250.00 €
- Candidates without nationality of countries of the European Union: 2500.00 €
  - Annual Tuition fee for international students with merit scholarship: 1250.00 €
  - Annual Tuition fee for international students with cooperation and development scholarship: 1450.00 €

In the admission year, all students with international student status who have a grade C higher or equal to 16 ( $C = 0.6 \times \text{undergraduate average} + 0.4 \times \text{masters average}$ , both averages on the scale 0-20), benefit from the tuition fee for international students with merit scholarship and all students from PALOP countries benefit from the tuition fee for international students with cooperation and development scholarship. In the following years, to keep the merit or cooperation and development scholarship, the student has to meet the conditions stipulated in article 22 of the Academic Regulations of the University of Évora and the results are published until October 31 of each academic year, without the need to apply for the scholarship

## 13. Organization / duration:

- a. **Duration of the program:** 8 semesters
- b. **Number of ECTS to obtain the degree:** 240
- c. **Number of ECTS to obtain the doctorate course (conclusion of the curricular part):**  
72
- d. **Double degree:** The students of this PhD program can obtain a double degree, obtaining a PhD in Mathematics from the University of Évora and a PhD in Modeling and Experimentation in Science and Technology at the University of Extremadura. To do this they will have to carry out at least 3 months of research at the University of Extremadura, have supervisors from the Department of Mathematics and the University of Extremadura and write their thesis in English. It is also necessary to pass in the curricular units of the study plan of the doctorate of the University of Évora and the public discussion of the thesis takes place at the University of Évora. Students who want to get the double degree must submit a request to do so, via Gesdoc, until November 30 of the year of admission. The thesis project, should mention the research to be carried out at the University of Extremadura and the proposed specific agreement.

**14. Language (s) of teaching:**

- Portuguese
- English

**15. Learning Type: Presential**

**16. Schedule type: Mixed**

**17. Program starting date: September of 2021**

January 6, 2021  
The Rector

Ana Costa Freitas