

## Contacts

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European Master Degree  
In Computational Logic

[www.di.fct.unl.pt/mcl](http://www.di.fct.unl.pt/mcl)

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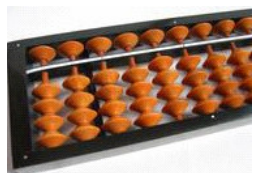
Departamento de Informática  
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Portugal



European Master Degree  
in Computational Logic





## Objectives

Give students theoretical and practical knowledge required for professional practice in the field. Provide a survey of Computational Logic. Develop the ability to employ scientific methods. Enhance profession oriented knowledge by choice of appropriate combinations of modules, and plan of studies to fit applications. Prepare for international science, commerce, and industry, by visits abroad and use of English.

The focus of instruction is in the areas: mathematical logic, logic programming, knowledge representation, deduction systems, artificial intelligence, methods of formal specification and verification, inference techniques, syntax-directed semantics, and relationship between computer science and logic.

Students will come into contact with the international research community, be integrated into research projects, and meet prospective employers. They shall develop competence in foreign languages and international relations, thus improving their social skills. And will become prepared for a future Ph.D.

## European Master Degree

On completion, the universities visited award a master degree and certificate to indicate the European Masters Program in Computational Logic.



## Course Structure

The course's essence is an integrated study program based on common and compulsory **foundation modules**, comprising 42 ECTS credit points, taught at each partner institution; plus specific **advanced modules**, up to 36 ECTS, based on the specific strengths of partner institutions; a **project** of 12 or 24 ECTS; and a **master thesis** of 30 ECTS, for a total of 120 ECTS.

Modules are distributed over three semesters, and the thesis takes place in the fourth. The foundation modules are offered in the first year by all partner institutions with the aim of bringing the students to an equivalent level of skills and knowledge. Bridging courses integrated into the foundation modules in the first semester help students adapt to a Masters Course of European educational level. On the other hand, students may be awarded module equivalences according to their prior studies and accomplishments.

The student's specialization (advanced modules, project, and master's thesis) can be pursued in the same or other partner institutions.

In the master's thesis the candidate should demonstrate the capability to solve independently a problem in Computational Logic or its applications using scientific methods.

# European Master Degree in Computational Logic



## Study Requirements

Applicants must satisfy the following study requirements:

- Knowledge of English: TOEFL (>550/213) or IELTS (>6.0) certificates, or equivalent.
- Bachelor's degree in Computer Science, or equivalent.
- Extensive knowledge in the areas:  
*foundations of mathematical logic*  
*foundations of artificial intelligence*  
*declarative programming*  
is required with a grade equivalent of "good" or "very good".

## Application

Students are requested to select two universities and acquire in each about 50% of the overall 120 ECTS. Mutual recognition of credits is on the basis of modules, the project, and the master thesis.

Successful participants will receive a master's degree from both selected universities, plus a European Master Degree certificate. Students studying at a single university obtain its own degree, but not the European Master Degree certificate.

Apply at our **FCT-UNL Post-Graduate Secretariat**, overlief, or at one of the universities concerned.

## More information

For more information on the study programs involved in the European Masters Program in Computational Logic - and about the common foundational and specific advanced modules - consult the following pages:

### International Master Program in Computational Logic

**Universidade Nova de Lisboa**

[www.di.fct.unl.pt/mcl/](http://www.di.fct.unl.pt/mcl/)

### International M.Sc. Program in Computational Logic

**Technische Universität Dresden**

[www.cl.inf.tu-dresden.de/compulog/](http://www.cl.inf.tu-dresden.de/compulog/)

### Studium irregulare 'Computationale Logik'

**Technische Universität Wien**

<http://kgs.logic.at/irregulare/>

### Laurea Specialistica in Informatica Free University of Bolzen-Bolzano

[www.unibz.it/inf/mcs/](http://www.unibz.it/inf/mcs/)

### Ingeniero Superior en Informática con la especialización en Computación Lógica

**Universidad Politécnica de Madrid**

[www.fi.upm.es/master/cl](http://www.fi.upm.es/master/cl)