

**THESIS REGULATIONS FOR THE MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE****1. INTRODUCTION**

To be awarded a master's degree in Artificial Intelligence (MAI), students must complete a master's thesis. This document sets out the regulations that govern master's theses.

**2. DEFINITION AND CHARACTERISTICS**

A master's thesis is an original project, generally completed by an individual (although coordinated master's theses are possible – see Section 14 of these regulations), which must be presented and defended before an examination committee. The thesis must consist of a comprehensive artificial intelligence project that draws together many of the competencies achieved over the course of the programme. Accordingly, the thesis should demonstrate that students are able to apply the knowledge they have acquired. All documents generated in relation to the master's thesis must be written in English.

**3. CREDITS AND WORKLOAD**

The master's thesis counts for 18 ECTS credits.

The workload for students is estimated at 30 hours per credit.

**4. TYPES**

Master's theses may be of the following four types:

- A: Theses completed at the UB, URV or UPC.
- B: Theses completed at a company/institution.
- C: Theses completed on national or international mobility.
- D: Theses completed at a company/institution abroad.

*Type A theses*

Master's theses of this type are linked to an academic unit (department, research institute, etc.) of one of the three universities and are proposed by professors or students.

Professors may make their master's thesis proposals public at any time using the established system. Students interested in a specific proposal must contact the professor responsible directly. If the proposal is made at the initiative of a student, he/she must also directly contact a professor on the master's degree who may be interested in supervising the thesis.

*Type B theses*

Theses of this type may be completed by students who have an employment contract with a company/institution or are completing a work placement under an educational cooperation agreement. Type B theses are supervised by a person under contract to the company/institution involved. In this case, the student must find a professor involved in the master's programme who is willing to act as an internal examiner for the thesis.

Type B master's theses must be defended, at the latest, during the first defence period following the expiry of the student's employment contract or educational cooperation agreement.

*Type C theses*

Master's theses of this type are completed within the framework of student exchange agreements. In this case, theses are governed by the regulations of the host university and supervised and assessed by its professors.

*Type D theses*

Type D theses are similar to type B but are completed at a company/institution abroad after the signing of an agreement covering this arrangement.

**5. MASTER'S THESIS REGISTRATION**

Students must register for the master's thesis before enrolling to complete it. Students may register for the master's thesis when they have passed a minimum of 30 ECTS credits for compulsory subjects on the master's degree.

**6. MASTER'S THESIS ENROLMENT**

Students may enrol for the master's thesis when they have passed a minimum of 30 ECTS credits for compulsory subjects. Master's thesis enrolment counts for 18 ECTS credits. The period during which enrolment remains valid is determined by the UPC regulations in effect.

**7. SUPERVISOR AND INTERNAL EXAMINER***Supervisor*

Master's thesis supervisors must hold an *enginyeria* or *licenciatura* degree (Spanish pre-EHEA degrees) or a master's degree. Professors who act as thesis supervisors must be professors on the master's programme, both at the time of enrolment and when the thesis is defended. Failing this, the thesis must have an internal examiner who is a professor on the master's programme.

The thesis supervisor is responsible for:

- Advising the student on all matters relating to the development of technical and cross-disciplinary competencies linked to the master's thesis.
- Tracking and monitoring the master's thesis.

*Internal examiner*

Internal examiners must hold an *enginyeria* or *licenciatura* degree (Spanish pre-EHEA degrees) or a master's degree. Professors who act as internal examiners must be professors on the master's programme, both at the time of enrolment and when the thesis is defended.

The internal examiner is responsible for:

- Advising the supervisor and/or student to ensure that the master's thesis meets requirements related to these regulations.
- Monitoring the thesis in collaboration with the supervisor.

*Multiple supervisors*

Master's theses may be co-supervised by two or more people.

## 8. MASTER'S THESIS ROAD MAP

### *Type A, B and D theses*

A student who is ready to undertake a master's thesis must:

1. Register the master's thesis.
2. Enrol for the master's thesis.
3. Defend the thesis.

### *Type C theses*

A student who is ready to undertake a master's thesis must:

1. Enrol for the master's thesis.

When a student returns from his/her mobility, the mark indicated on the corresponding transcript is adapted to a numerical mark on a scale of 0 to 10 and recorded on his/her academic record.

In all cases, the period during which enrolment will remain valid is determined by the UPC regulations in effect. Students who do not defend their thesis during the period that their master's thesis enrolment remains valid must re-enrol.

## 9. MASTER'S THESIS ASSESSMENT

Master's theses are assessed comprehensively and assigned a single mark.

In the case of type A, B and D theses, assessment takes place at one of the three schools/faculties involved in the master's degree. Theses of these types are assessed by an examination committee appointed by the MAI academic committee. Type C theses are assessed at the host university for the mobility.

For the assessment of type A, B and D theses, students must submit a thesis report and defend their thesis in a public session before an examination committee. Assessment takes place in the periods set for the defence of master's theses. Dates for submission of theses and their public presentation will be announced by the School before the start of each semester.

Type A, B and D theses are assessed by an examination committee appointed by the dean of the FIB at the proposal of the MAI academic committee. Examination committees are appointed, and the list of examiners made public, at least 15 days before the defence date. Examination committees are made up of three professors from the schools/faculties involved in the master's programme, who serve as chair, secretary and committee member. At least one of the professors must have assigned teaching duties on the master's programme or have taught on the programme in one of the two preceding academic years.

Members of the examination committee may not simultaneously act as supervisors or internal examiners for any of the master's theses they must assess. Therefore, substitute examiners must also be appointed to act in such cases.

The committee jointly assesses the competencies for the master's thesis (other than cross-disciplinary competencies) in numerical terms and assigns a single mark. The committee also assesses cross-disciplinary competencies linked to the master's thesis and assigns an alphanumeric

In the case of type C theses, the assessment of the university where the student enrolled for and completed his/her master's thesis will be accepted. The certificate of marks issued by that university must include the number of ECTS credits the thesis carries and the mark achieved. If the assessment of the master's thesis includes information on cross-disciplinary competencies, this should also be recorded in the student's academic record. Type C master's theses must carry a minimum of 18 ECTS credits. The mark for these 18 credits will be adapted to one on a scale of 0 to 10 based on the mark awarded for the master's thesis. In exceptional cases, when the original mark is not numerical and additional information from the university that awarded it is not available, the MAI academic committee may require that the student concerned defend his/her thesis at one of the three schools/faculties involved in the master's degree. The designated examination committee will assess the thesis and award a final mark.

#### **10. INTELLECTUAL PROPERTY**

Industrial and intellectual property rights in type A theses are governed by the regulations in effect at the university where the thesis is completed.

It should be noted that these regulations do not affect type B, C and D theses as they are completed outside the scope of the UB/URV/UPC. In the case of type B or D theses, intellectual property rights in the master's thesis are governed by the agreement between the student and the company concerned. In the case of type C theses, intellectual property rights are governed by the academic regulations of the university where the master's thesis is completed. The only exception that must be considered is when the supervisor of a type B master's thesis is a professor at one of the three schools/faculties involved in the master's degree. In such cases, the agreement between the professor and the company involved must stipulate who will own the intellectual property rights in the master's thesis.

#### **11. CONFIDENTIALITY**

All master's theses reports are made public through the UPC's Libraries, Publications and Archives Service. A student or thesis supervisor may submit a reasoned written request for confidential treatment of a master's thesis to the director of the master's programme. When confidential treatment is approved, information related to the thesis is not made public and is only accessible to examiners for assessment purposes and subsequent recording in the student's academic record. If desired, the confidential treatment of a thesis may be changed following its defence by submitting an application signed by the student, thesis supervisor, and, if applicable, the internal examiner. Applications must be addressed to the director of the master's programme.

#### **12. CHANGES TO THESIS DETAILS**

Any changes to the details of a master's thesis – title, change of supervisor, etc. – must be made by submitting an application signed by the thesis supervisor (or internal examiner if applicable) and the student. Applications should be addressed to the director of the master's programme.

Once a master's thesis has been registered, its classification (type A, B, C or D) may not be changed. The director of the master's programme may make exceptions in duly justified cases.

#### **13. WITHDRAWAL FROM A MASTER'S THESIS**

A thesis supervisor (or internal examiner if applicable) or student may apply to withdraw from a master's thesis unilaterally by submitting an application to the director of the master's programme.

If a thesis supervisor or internal examiner withdraws, the director of the master's programme shall ensure that a new supervisor or internal examiner is assigned if possible, or that the affected student is able to register a new person to fill this role.

#### **14. MASTER'S THESIS REPORT**

Students who have completed work on their master's thesis must submit a thesis report in accordance with the procedure stipulated in the document "Master's Thesis Submission Procedure". Reports must be validated by the thesis supervisor/internal examiner. After being validated, thesis reports are automatically made available to examiners. Students must submit their thesis reports early enough to ensure that they are available to examiners at least one week before the defence date.

While students are not generally required to submit a printed copy of their thesis report, it is their responsibility to deliver printed copies to any examiners who request a copy in this format. Any printed copies provided must be bound to facilitate review. However, to minimise the cost and the time required to produce bound copies, there are no specific requirements with respect to the binding format.

In general, a master's thesis report must be an original and unique work. In the case of coordinated master's theses in which the degree of work sharing is high, the specific contribution made by each student must be clearly indicated in their respective reports. Thesis reports must start with a 1000-word abstract.

There is no set format for thesis reports. However, the following information must appear on the cover (front page):

- a) Title
- b) Author
- c) Thesis defence date
- d) Supervisor, supervisor's department and university
- e) Master's degree in Artificial Intelligence
- f) BARCELONA SCHOOL OF INFORMATICS (FIB)  
FACULTY OF MATHEMATICS AND INFORMATICS (UB)  
SCHOOL OF ENGINEERING (URV)
- g) UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC) · BARCELONATECH  
UNIVERSITAT DE BARCELONA (UB)  
UNIVERSITAT ROVIRA I VIRGILI (URV)

If there is a co-supervisor, the following information should also be included:

- d') Co-supervisor, co-supervisor's institution/company

If there is an internal examiner, the following information should also be included:

- d) Supervisor, supervisor's institution/company
- d') Internal examiner, internal examiner's department and university

In the case of type B, C and D theses, students must clearly indicate the school, institution or company where the thesis was completed.

By way of guidance, students may consider using the sections indicated in the “Guide to Master’s Thesis Report Content” to structure their report.