

## **REGULATIONS<sup>1</sup> OF THE MASTER THESIS OF THE MASTER IN INNOVATION AND RESEARCH IN INFORMATICS**

### **1. INTRODUCTION**

In order to obtain the degree of Master in Innovation and Research in Informatics (MIRI), the student must perform a Master Thesis. This document contains the regulations of the Master Thesis.

### **2. DEFINITION AND CHARACTERISTICS**

The master thesis is an original work done, in general, on an individual basis (it is anticipated the possibility of coordinated TFMs, see point 14 of this Regulation). It must be presented and defended in front of a University committee. This thesis should consist of a comprehensive project that will synthesize a high number of competences achieved throughout the master's courses. Accordingly, it must demonstrate that the student knows how to apply the knowledge acquired. All the documentation generated by the thesis has to be in English.

### **3. CREDITS AND WORKLOAD**

The number of credits of thesis is 30 ECTS.

The burden of work for the student is estimated in 30 hours per credit.

### **4. MODALITIES**

The thesis is carried out according to one of the four following modalities:

- A: projects at UPC
- B: projects in companies/institutions.
- C: projects on mobility, both nationally and internationally.
- D: projects in companies/institutions abroad.

#### *MODALITY A*

These theses are linked to an academic unit (Department, Research Institute, etc.) and are proposed by a professors or the student. Professors can make their proposals public at any time using the mechanism established by the FIB. Students interested in a particular proposal can contact directly the professor. If the proposal starts from the student, he/she has to contact a professor of the school to become his/her advisor.

#### *MODALITY B*

Students with a working contract or under an educational cooperation agreement can carry out the project in this mode in a company/institution. These projects are advised by a person with a permanent contract from the company/institution. In this case, the student interested should make the proposal to any professor of the school that, if he/she accepts, will become the tutor of the project.

The master thesis in category B will have to defend, at the latest, in the next defense period following the expiry of the contract or educational cooperation agreement.

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This document is a translation of the regulations approved by the CP on March 19<sup>th</sup> 2014. This document is provided only for information purposes and it has no legal binding whereas the Catalan version does have the legal status for regulating the master thesis.

*MODALITY C*

The theses of this type are carried out within the framework of student exchange agreements. These theses are ruled by the regulations of the receiving University and are conducted and evaluated by the faculty of that University.

*MODALITY D*

The theses of this type are similar to those of modality B with the difference that they are performed in a company/institution abroad upon signing of the corresponding agreement.

**5. PRE-REGISTRATION OF THE MASTER THESIS**

Students must pre-register their theses before they register it. Students can pre-register the thesis when they have passed a minimum of 60 ECTS of the courses of the master.

**6. REGISTRATION OF THE MASTER THESIS**

Students can register the thesis when they have passed a minimum of 78 ECTS. The registration of the TFM is 30 ECTS credits. The registration is valid for the time period stated in UPC's regulations.

**7. THE ADVISOR AND TUTOR***Advisor*

The advisor of the thesis must have a degree in engineering equivalent to a master's degree. Both at the time of registration as at the time of the defense, professors and advisors must be a faculty member of the FIB. Otherwise, the thesis requires a tutor who is a faculty member of the FIB.

The advisor of a Master Thesis is in charge of:

- Advise the student in all matters related to the development of technical and transversal skills associated with the project.
- Track and monitor the thesis.

*Tutor*

The tutor of the thesis must have a degree in engineering equivalent to a master's degree. Both at the time of registration as at the time of the defense, the tutor must be a faculty member of the FIB.

The tutor of a Master Thesis is responsible for:

- Advise the advisor and/or the student to ensure that the work complies with the requirements arising from this regulation.
- Follow up the work in collaboration with the advisor.

*More than one advisor*

These regulations recognize the possibility that a thesis is co-advised by two or more persons.

## 8. ITINERARY OF THE THESIS

### *MODALITIES A and B*

A student who is in a position to start the thesis must:

1. Pre-register the thesis.
2. Register the thesis.
3. Defend the work.

### *MODALITY C*

A student who is in a position to start the thesis must:

1. Register the thesis.
2. When returning from the exchange program, the score in the *transcript* is adapted to the scale of 0 to 10 and incorporated into the student's records.

In all cases, the registration is valid as stated in UPC's regulations for Master Thesis. If the thesis is not defended in the period of validity, it is necessary to re-register it.

## 9. EVALUATION

The thesis is assessed globally with a single score.

In the case of modalities A, B and D, the evaluation is done at the FIB as explained below. In the case of category C, the evaluation is performed by the receiving university.

The evaluation at the FIB requires the delivery of a written report of the work and the public defense of the work in a public session in front of an evaluation committee. The evaluation is carried out in one of the predetermined periods to defend the thesis. The dates of delivery of the report and public presentation will be announced by the school before the start of each semester.

The thesis of modalities A, B and D are evaluated by a committee, appointed by the Dean, and proposed by the master's Academic Committee (CAMIRI). The list of committee members is made public at least fifteen days before the date planned to defend the thesis. The committee is composed of three professors of the FIB, which act with the roles of President, Secretary and Board member. At least, one of the professors in the committee must be assigned to the master's program, or he/she must have been assigned in any of the previous two academic years. The committees are organized by specialties. The members of a committee cannot be at the same time advisors or tutors of any of the master thesis to evaluate.

The committee assesses together the competences (except the transversal) numerically and assigns a single qualification. In addition, the committee assesses the transversal competences assigned to the master thesis alphanumerically.

In the case of modality C, the evaluation of the thesis is performed by the receiving University. The grade certificate issued by that University should include both the number of ECTS credits of the work done as the qualification obtained. If the evaluation of the thesis includes information on disciplinary skills, this will also be included in the student's records. The thesis made in this modality must have at least 30 ECTS credits and the grade obtained is adapted to the scale of 0 to 10 based. Exceptionally, when the grade of origin is not available and there is no additional information from the receiving University, the CAMIRI may require the defense of the work at the FIB. The designated committee will evaluate the project and give the final grade.

**10. INTELLECTUAL AND INDUSTRIAL PROPERTY**

The industrial and intellectual property rights of the thesis are regulated by the regulations in force at UPC.

Please note that this policy has no effect in the projects of the modalities B, C and D as these are outside the scope of UPC. In the case of modalities B and D, the intellectual property rights of the thesis are determined by the agreement/contract between the student and the company. If the thesis corresponds to modality C, the intellectual property is determined by the academic regulations of the receiving University. The only exception that will be considered is for theses of modality B that have as an advisor a professor of the School. In this case, the agreement between the professor and the company must specify who has the intellectual property rights of the thesis.

**11. CONFIDENTIALITY**

The report of all master thesis presented is made public through the library service. The student or the advisor may request a confidential treatment via a written request to the Vice-Dean of Postgraduate Studies. In cases where confidentiality is approved, all the information related to the work is not made public and it is only accessible by members of the Committee for their evaluation and then it is filed into the student's record.

If a student wants to change the treatment of confidentiality after defending the work, he/she must request it by means of a form signed by the student, the advisor and the tutor –in case there is one-. The form should be directed to the Vice-Dean of Postgraduate Studies.

**12. CHANGES OF THE PROJECT DATA**

Any modification of the data of the master thesis: title, change of advisor, specialty, ... should be done by means of a form signed by the advisor (or the tutor in the cases in which this is necessary) and the student. This document should be addressed to the Vice-Dean of Postgraduate Studies.

Once registered for the thesis changes will not be allowed. The Vice-Dean of Postgraduate Studies may establish exceptions in duly justified cases.

**13. CANCELLING THE MASTER THESIS**

Both the advisor of the master thesis (or the tutor) as well as the student can cancel the master thesis unilaterally by means of a request to the Vice-Dean of Postgraduate Studies.

In the event that the request comes from the advisor or tutor, the Vice-Dean of Postgraduate studies will work to ensure that the position is assigned to a new professor, if this is possible, or that the student can register a new thesis.

**14. REPORT OF THE MASTER THESIS**

At the end of the thesis, the student must hand in the report following the procedure established in the document "Procedure of delivery of the master thesis". The report is validated by the advisor/tutor. Once validated, it will become automatically accessible by the members of the Committee. The student must submit the report so that the committee can have –at least- a week in advance of the date agreed for the defense.

By default, it is not necessary to deliver the report on paper, but it is the responsibility of the student to send a hard copy to the members of the committee that explicitly request it. In such a

case, the document has to be bound to facilitate the study. This regulation does not establish any further requirements regarding the format of the binding with the aim of reducing the cost and the time necessary for its preparation.

The report of a thesis must be original and unique. In the case of theses where the degree of sharing of work is high, students should state clearly what are the contributions of each of the students in their respective reports.

The report of a thesis should start with a summary of the work (abstract) of 1000 words.

The report has a free format. However, the information that must appear on the front page (first page) of the work are:

- a) Title
- b) Author
- c) Date of Defense
- d) Advisor and Department of the Advisor
- e) MASTER IN INNOVATION AND RESEARCH IN INFORMATICS
- f) Specialty
- g) FACULTAT D'INFORMÀTICA DE BARCELONA (FIB)
- h) UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC) – BarcelonaTech

If there is a co-advisor, the following information needs to be added:

- d') Co-advisor, department/institution/company of the co-advisor

If there is a tutor, the following information is required:

- d) Advisor and institution/company of the Advisor
- d) Tutor and Department of the tutor

For guidance purposes, the report can have the sections defined in the document "Guide to the contents of the master thesis report".

In the case of the modalities B, C and D, the report must explicitly indicate the center/institution/company where the master thesis has been developed.

**GLOSSARY**

Some procedures have very specific names in Catalan, the following table lists the correspondence from the terms used in this regulations to the actual words used in Catalan. This list is provided to avoid confusion among students and staff.

<b>This document</b>	<b>Catalan document</b>
<b>Advisor</b>	Director
<b>Co-Advisor</b>	Co-Director
<b>Tutor</b>	Ponent
<b>Pre-register</b>	Inscripció
<b>Register</b>	Matrícula
<b>Master Thesis Report</b>	Memòria treball fi de màster

# Guide to the contents of the report of the master thesis

At the discretion of the author, the report of the thesis may contain the following sections:

- Cover page
- Abstract
- Index
- Introduction, motivation and goals
- State of the art
- Methodology
- Development of the proposal/technical/work
- Evaluation of the proposal/technical/work
- Conclusions
- List of references
- Annexes with the additional information

## Delivery procedure

Students will use the "Racó" of the FIB to manage the various stages of the project. Therefore, the student must register the project and deliver the report through this portal. The advisor/tutor may, at that time, validate the report. During the validation process, the advisor/tutor can enter comments he/she thinks are appropriate about the project and the report. Once validated, the report is accessible by the Committee. members