

MASTER'S DISSERTATION CURRICULAR UNITS

Internal Regulations

1. Introduction

The present rules are in accordance with the Portuguese Law, laid out in Decreto-Lei nº 74/2006 of March 24th, and with the regulations covering Master's Dissertations presented at Instituto Superior Técnico (IST), which are laid out in internal documents and updated each academic year.

According to these regulatory bases, the cycle of studies leading to any Master's Degree at IST must include a scientific dissertation or an advanced technical project, original and carried out specifically for this purpose. Any of the two can be carried out in academic, research, industrial or enterprise environments.

2. Scope and contents

The Master's Dissertation involves original work in the knowledge domain of the respective programme. This work should include theoretical and practical (e.g., laboratory, field experimental, simulation) components, covering the aspects of: approach to a novel problem; retrieval of relevant bibliographical or other information; rational selection of methodologies; conception of a solution for the proposed problem and respective implementation; critical analysis of work results.

The Dissertation document is an execution report of the work done, written in due form as laid out in the Guidelines issued by the Scientific Council of IST. This document should include also a discussion on the relevance and timeliness of the studied problem, an overview of the state-of-the-art in its knowledge domain and a final exercise in synthesis and conclusions.

3. Proposal and selection of Dissertation themes

The Master's Dissertation curricular unit can be taken in both academic semesters.

The Master's programme Scientific Coordinator issues calls for Dissertation theme proposals, directed at the teaching and research staff of the relevant Departments of IST, once or twice yearly (see section 10). It is the staff's responsibility to ensure that a sufficient number of themes is made available, duly covering the Master's programme scientific areas. The theme proposals are formally submitted in IST's intranet (Fénix system), using an electronic form, providing information on the work plan and objectives and including the minimum prerequisites to be met by the applicant students. Any submitted Dissertation proposal carries the guarantee that the responsible staff will implement it if there is an interested student candidate fulfilling the respective prerequisites. No Dissertation can be officially carried out if its theme is not duly registered in the Fénix system.

The Master's programme Scientific Committee checks the proposed themes for adequacy in scope, quality and clarity of objectives and opens the approved proposals for student applications yearly within given time periods (see section 10).

Within the application period, students submit their applications through the Fénix system and attend interviews arranged with the theme proponents, in order to further the selection process. The latter takes into account the student's academic record and performance in the interviews. The theme proponents register their final selections from the candidate students, in the Fénix system, and the final list of students with attributed Dissertation themes is approved by the Scientific Coordinator and divulged in IST's intranet. With this knowledge, students can then enrol in the Master's Dissertation curricular unit, within the enrolment period of the respective semester.

4. Dissertation's supervision

The Dissertation's supervisor is a member of the IST's teaching or research staff, holding a PhD, or alternatively a specialist of merit recognized by the Master's programme Scientific Committee. There can be two co-supervisors. The supervisor can also be a staff member from an institution other than IST, a PhD holder or a specialist, in which case a co-supervisor from IST must be appointed. This also applies to Dissertations from Master's programmes offered at IST in association with other academic or research institutions. The supervisors are appointed by the Master's programme Scientific Coordinator, advised by its Scientific Committee.

5. Dissertation's evaluation board

The Dissertation's evaluation board (jury) is appointed by the Master's programme Scientific Coordinator, advised by its Scientific Committee.

The board must comprise:

- A president or chairperson, either the Master's programme Scientific Coordinator or a member of its Scientific Committee, excluding the Dissertation's supervisors.
- The Dissertation's supervisor, only 1.
- Additional board members, of any nationality, who can be faculty, researchers or specialists holding a PhD, or up to 2 specialists of merit recognized by the Scientific Committee in the relevant knowledge area.

The board can hold a maximum of 5 members.

The board's deliberations, following the public presentation of the Dissertation (section 9), result from the majority of the individual, justified votes of its members, who are not allowed to abstain. In case of a draw, the president has the quality vote. The deliberations, with individual votes and justifications are registered in the board meeting minutes, using a form model issued by the Scientific Council of IST. The minutes are submitted by the Master's programme Scientific Coordinator to the Scientific Council who approves them to take effect. A copy of the minutes can be provided to the student, upon request. Together with the minutes, the Master's programme Scientific Coordinator delivers two electronic versions on CD/DVD to the Central Library of IST. The delivered dissertation is also sent to the Portuguese National Library's Legal Repository, with public disclosure.

6. Confidentiality

Some Dissertations may need to ensure that part of the results is kept confidential. The Master's programme Scientific Coordinator must be warned of these issues before the thesis is submitted, in order to approve the subsequent procedures.

The latter include:

- The production of a non-confidential Dissertation document, which will be sent to the Legal Repository and publicly disclosed, duly approved by the institution that requests the confidentiality process. This document should consist of a coherent text with no missing parts and give an adequate statement of the reasons for approval in the Master's Dissertation curricular unit.
- If needed, the production of an annex containing the confidential information, which is used by the Dissertation's evaluation board and which IST commits itself to filing in a reserved deposit for a minimum period of five years, extendable to any other period as required.
- If needed, the signing of a Confidentiality and Intellectual Property Agreement between IST and the involved parties requiring the confidentiality procedures. This agreement should follow a form approved by the Scientific Council of IST, with eventual alterations as agreed between IST and the involved parties.

7. Submission of the written Dissertation

The deadlines for the submission of the written Dissertation documents are given in section 10. Failure to comply with these implies enrolment in a subsequent edition of the curricular unit (subsequent academic semester).

The main Dissertation document can be written in Portuguese or in English. The document must follow the structure and graphical layout described in the Guidelines issued by the Scientific Council of IST, and it must not exceed 80 A4 pages, plus annexes up to a total not exceeding 100 A4 pages.

Together with the main Dissertation document, the student must submit an executive summary in English, with up to 10 pages, written in the format of a technical/scientific paper, as instructed in the Guidelines.

The provisional versions (approved by the supervisors) of the two documents must be delivered to the Master's programme secretariat in printed form, one copy per jury member. The final must be uploaded into the IST's internet, following the procedures explained in the Guidelines. At the same time, the student formally approves the legal terms for the dissemination of the submitted Dissertation.

8. Public presentation of the Dissertation

The periods for the public presentation of the Dissertation, defined for each academic semester, are given in section 10. Each Dissertation presentation is publicly announced by the Master's programme Scientific Committee on the programme's main webpage, giving its title, author's name, evaluation board members' names, date, time and venue.

The presentation and subsequent discussion must not exceed 90 minutes, being preferably kept under 60 minutes. The languages used can be Portuguese and/or English. The first 20 minutes comprise an oral presentation by the student, highlighting the work done, using language that can be understood by non-specialists. The remaining time is dedicated to the scientific/technical discussion of the presented work, with equal time being allocated to the evaluation board members' and the student's interventions. The board president ensures compliance of these rules.

9. Quantitative assessment of the Dissertation

Following the public presentation, the Dissertation's evaluation board assesses the contents of the written Dissertation documents submitted by the student, as well as the student's performance in the public presentation and discussion.

The following items should be covered:

- Quality of the written dissertation (50% of the final mark), including language clarity and quality, document structure, capacity to apply acquired knowledge to unfamiliar problems, originality in terms of the approached issue, methodologies and proposed solutions, scientific/technical rigour, critical analysis of results and proposals.
- Quality of the executive summary (20% of the final mark), in terms of capacity for synthesis retaining language clarity and quality and scientific/technical rigour.
- Quality of the public presentation (10% of the final mark), in terms of presentation clarity, communication capacity for non-specialists, and capacity for synthesis retaining scientific/technical rigour.
- Quality of the public discussion (20% of the final mark), in terms of assertiveness and argumentation capacity.

The final classification in the Master's Dissertation curricular unit is attributed as the closest integer of the weighted average (indicated % values) of the individual classifications attributed to the above items on a 0-20 scale (pass minimum: 10).

The final classification is registered by the president of the evaluation board, in the maximum period of 10 working days following the approval of the board's meeting minutes by the Scientific Council of IST.

10. Guidance table for the Master's Dissertation process procedures and periods

Step	Executioner	Action	Means	Period (1 st Semester)	Period (2 nd Semester)
1	MPSComm*	Themes open for student applications	internet	Apr-May	Oct-Nov
2	Student	Application for themes	internet	Apr-May	Oct-Nov
3	MPSComm*	Student selection and theme attribution	internet	up to 30 June	up to 31 Dec
4	Execution of the Dissertation work			Sep-Feb	Feb-July
5	Student	Submission of the provisional Dissertation documents	printed form	up to 31 May	up to 31 Oct
6	MPSCoord*	Proposal and approval of the evaluation board constitution	internet	up to 31 May	up to 31 Oct
7	Public presentation of the Dissertation; evaluation board meeting, attribution of the final classification and production of written meeting minutes			up to 30 June	up to 30 Nov
8	Student	Submission of the final versions of the dissertation documents; approval of dissemination terms	internet: thesis, extended abstract and student identification	up to 5 July	up to 5 Dec
9	MPSCoord*	Confirmation and submission of the meeting minutes with the final classification to the SC IST	internet;	up to 5 July	up to 5 Dec
10	MPSCoord*	Confirmation and submission of the final Dissertation documents	internet	up to 15 July	up to 15 Dec
11	SC IST*	Ratification of the minutes	internet	up to 15 July	up to 15 Dec
12	MPSCoord*	Register of the final classification	signature on printed document	up to 31 July	up to 31 Dec
13	IST Central Library and intranet services	Filing of the Dissertation documents and delivery to Legal Repository	internet	-	-

* MPSComm - Master's programme Scientific Committee; MPSCoord - Master's programme Scientific Coordinator; SC IST - Scientific Council of IST

11. Administrative contacts

Co-ordination

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Secretariat

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