

Master Project

REGULATIONS

(for the attention of the students, IC professors and companies/universities hosting graduating students)

▶ GOAL OF THE MASTER PROJECT

The master project is a student's project that implies analysis, conception and implementation work with the purpose of proving the student's ability to be an engineer. This project is to be done once the Master's credits have been acquired, according to the conditions stated in the Ordinance on the evaluation of the studies at EPFL.

When the master project is done in a company, the student works on a project given by the company itself. The person in charge of the company must ensure that the student is allowed to do sufficient analysis and conception work to allow the IC professor to evaluate the student's engineering ability.

The master project includes a written report and an oral defense which are both graded.

The master project is to be done once the Master's credits have been acquired, according to the conditions stated in the Ordinance on the evaluation of the studies at EPFL. It is usually done during the fourth master semester. If the student does a 6-month internship (working experience outside of EPFL), the master project is postponed.

The subject of the master project can be suggested by:

1. The EPFL
2. The student
3. A company
4. Another university (if the internship has already been done by the student)

The master project of students in Cyber Security must be made in the field of cyber security.

The IC Professor supervisor has to approve the master project subject. The student is responsible for getting the approval and for his/her registration to the section.

▶ SUPERVISION

The master project must be supervised by an IC professor who will be in charge of the follow-up and the assessment of the project. A teacher affiliated to another section or a scientific collaborator can also supervise the project with the approval of the Section Director. A person will be

responsible for the student's supervision within the company. This person will also be the contact person for the IC professor in charge.

▶ BASIC PRINCIPLE OF CONFIDENTIALITY

Confidentiality is an exception in academia, which by nature must publish its findings. As a master project is an academic assignment, it should not generate results that are confidential.

The findings of a master's project are not confidential and may be freely used by the EPFL, the company and the student as long as no patent has been filed (or if delivery of patent has been reused) and the results are not software.

Usually, professors do not sign a non-disclosure agreement (NDA) with a company for a master's project. If the company requests an NDA to be signed, the professor can use the EPFL Agreement for master's project.

The student must be careful not to transmit to the professor any confidential information belonging to the company, without clearly indicating it as such. This applies to information specified as confidential by the company in writing, but also to information observed within the company (unless it is in the public domain).

Students must be particularly careful not to sign an employment contract with the company forbidding them to disclose the results of the master's project to their professor, failing which the work cannot be validated.

→ *Confidentiality of the thesis report*

The thesis report should not contain any confidential information and should be downloaded on IS Academia as it is.

If, however, the student checks the "confidential" box, the professor will be notified by an automatic email. If the professor has not signed a research contract or the EPFL Agreement for master's project, the student must remove the confidential parts of the report before uploading.

→ *Intellectual property*

The results of the master's project can be used freely by the EPFL, the company and the Student except in the case of signature of a contract (EPFL Agreement for master's project or research contract).

▶ LENGTH OF THE PROJECT AND DEADLINES

For both sections, the duration of the master project is as follows:

- EPFL (and ETHZ for students in Cyber Security): 4 months (17 weeks)
- Company or foreign university: 6 months (25 weeks)

The student must respect the deadlines communicated to him/her by the section.

For questions concerning the validity of their residence permit and in accordance with the rules of the EPFL, the student must begin the master project on the date communicated to him/her.

▶ MASTER PROJECT DONE AT EPFL OR ETHZ

As per EPFL rules, master projects done at EPFL or ETHZ cannot be remunerated.

▶ STUDENTS' STATUS IN THE COMPANY

Although the student remains registered as such at the EPFL, when he/she does his/her master project in a company and is paid by the company, he/she is subject to the company's rules and regulations, i.e. salary, timetable, absence, confidentiality, etc.

The contractual tie between the student and the company does not link the EPFL and the company.

▶ ASSESSMENT

In order to evaluate the student's ability and the direction the project is taking, it is important for the IC professor to be involved in the progression of the project. The professor can ask the student to give an intermediary presentation. If no presentation is requested, the student is responsible for asking for it.

The IC professor is allowed to re-orient the work that is being done, in agreement with the company, in order to ensure that the project fulfills the Master project requirements that prove the student's ability to be an engineer.

The master project includes a written report (thesis). The student must plan the necessary time to write this report and should not take on working time to write it.

▶ REPORT

The student must write a report that contains the following items:

- The title
- The student's contact details (surname, first name, address)
- The name of the IC laboratory, the name of the company or the name of the other university in which the master thesis is being done
- The name of the responsible IC professor
- The results of the thesis (analysis, conception and implementation)

The report must be representative of the student's work in order to be able to judge the student's ability to be an engineer. The report will be archived within the sections and, in general, in the laboratory of the IC professor.

▶ DEFENSE AND JURY

The defense of the Master thesis consists of the evaluation of its final presentation followed by an oral interrogation in front of the teacher who directed the thesis and **an external expert to the EPFL indicated by the teacher in agreement with the director of section**. These two people make the jury.

The jury will assess the student's written report as well as his/her presentation. If the report is not confidential, the presentation will not be confidential either. In the exceptional cases where the report is confidential, the company contact person will inform the IC professor at the beginning of the master thesis. A solution will be found between the IC professor and the company.

The jury will consider the following elements:

1. The undertaking of the project, i.e. the way the student defined his/her subject, how he/she analyzed the different stages, how he/she evaluated his/her work at regular intervals (particularly by communicating regularly with his/her professor) and how he/she managed unexpected incidents (changes in the subject, deadlines, etc)
2. The content of the academic part of the master thesis, i.e. analytical, formal and bibliographical approach to the subject
3. The quality of the written report (presentation of the report, clarity, precision, references, language)
4. The quality of the oral defense (quality of the slides, ability to synthesize, elocution, pertinence of the possible demonstrations)

▶ SUCCESS CONDITIONS

The master thesis project is considered as successful when the student has first of all handed in his/her master thesis report within the given deadline and has then obtained at the exam a grade of minimum 4.0.

▶ EXTENSION

If the written report is judged as being insufficient, the IC professor can request the student to make it up within the two weeks that follow the oral defense with the agreement of the section. The modifications must be done on the form and not the contents.

▶ WITHDRAWAL

A master thesis cannot be abandoned during the project, except for exceptional reasons and with the approval of the IC professor and/or the company contact person. The section must be informed immediately.

A withdrawal is considered as a failure. In case of failure, a second master thesis project can be presented. A second failure is disqualifying.

Last update in October 2021

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Director of SIN program

Prof. Serge Vaudenay
Director of SSC program

Annex 1

PROCEDURE

Supervision

The subject of the master thesis project is used to determine which IC professor will supervise the project.

Role of the IC professor

- He/she validates the subject of the master thesis project by signing either the “[Master’s project – Registration form](#)” that the student has completed together with the company or “[Master thesis – EPFL](#)” form.
- He/she ensures the smooth progression of the master thesis project whether it takes place in an IC laboratory, in a company or in another university.
- He/she organizes the follow-up and/or an intermediary presentation of the project.
- He/she evaluates the report of the master thesis project.
- He/she organizes the oral defense of the master thesis project by inviting an external expert. In general, the company contact person is the external expert.
- He/she gives a grade for the master thesis project.

Role of the student

- If the master thesis project is going to be done at EPFL, the student gets the approval of the IC professor who will follow him/her for the project and has the professor sign the “[Master thesis – EPFL](#)” form.
- If the master thesis project is going to be done in a company or another university, he/she fills in the “Master’s project – [Validation of the Topic](#)” form (1st page of the form) and submits it to the section for approval.
- The student must find an IC professor who will supervise the project. The IC professor will be chosen according to the subject of the project.
- The student fills in the “Master’s project – [Registration form](#)” (2nd page of the form) and has it sign by the IC professor and by the company / other university supervisor.
- The student returns this form to the SIN or SSC section: patricia.genet@epfl.ch .
- The student registers for the project on IS-Academia.
- If the master thesis project is being done in a company or another university, the student must confirm his/her arrival in the company or university and the start of his/her master thesis project by sending an e-mail to the SIN or SSC section.
- Accordingly with the Professor, the student makes him once a month a report on the progress of the master thesis project.
- Within the submission deadline confirmed by the Registrar’s office (SAC) and the section, the student must:
 - send by email the electronic copy of the master thesis report to the professor and his secretary (and, if applicable, to the company / other university supervisor), with copy to the SIN or SSC section (SIN: IN- antonella.veltro@epfl.ch, CYBER- *vacat* / SSC: DS & SC- carole.dauphin@epfl.ch)

- upload the electronic copy of the master thesis report in IS-academia (except for the students whose project is confidential)
- The student must prepare an oral defense of his/her master thesis project.