SIE Master Project

INSTRUCTIONS for students, EPFL professors and companies/universities that support students during their master project.

Goal of the master project

The master project is a personal student project which requires analytical, conceptual and implementational work. Through the work, students can prove their acquired engineering skills. The work can be conducted at an EPFL laboratory, within an institution that has a relationship with EPFL or within an external institution. The master project shall be conducted during the SIE Master, during the dates specified in the academic calendar.

Supervision

The master project must be supervised by an academic representative, who is either a professor or MER of the SIE section. He/she is responsible for following-up with the project and for evaluating it. Should the project be carried out in an external institutions, the external representative supervises the student and is designated as the primary contact person for the academic representative.

Project choice

The topic for the master project can be proposed by:
- a lab from the Environmental Engineering Institute (IIE)
- the student in an environmental engineering field via an external institution
In the latter case, the academic representative must approve the master project topic and objectives, in agreement with the host institution and external representative.
The student

- is free to choose the academic representative with whom they wish to carry out their master project, provided they agree
  
  The project supervisor is:
  - Professor/MER within the SIE section
  - Professor/MER outside the SIE section or scientific collaborator with the approval of the SIE section director (in special cases)
  - must contact the academic representative to define and validate the project objectives
  - asks the SIE section for approval
  - must register on IS-Academia.

External project representative

If the master project is carried out externally, the external representative must ensure that the student can conduct sufficient analytical and conceptual work for the academic representative to evaluate the student’s engineering capacities.

The academic representative

- proposes topics in their research field.
- must examine the proposed external master projects, verify the quality of the projects proposed by the external partner and validate the topics they wish to be responsible for.
- informs the partner about the standards required by epfl.
- must prepare a description of topics to be published on the institution's/laboratory’s website.
- officially supervises the project, regularly follows-up with the work progress and presides over the evaluation jury.
- intervenes with the external representative should any problems arise.

Duration

In SIE, the master project duration is 17 weeks if it is conducted at EPFL.

The duration can be extended to 25 weeks maximum, if:

- the project is conducted outside EPFL
- permission is asked for prior to the start of the master project
- the SIE section gives its permission

Requests for extensions submitted during the master project will not be considered.

Project development

Student

For the entire duration of the master project, the student remains matriculated as an EPFL student and is subject to the laboratory and/or host enterprise rules: schedule, leave of absence, confidentiality, seminars etc.

External representative (for PDM outside of EPFL)

Welcomes the student on the first day of the project and give him/her project directions

Mentors the student and regularly follows up with the work progress.
- asks the student for an intermediate work report/display in order to evaluate the student’s capacities and the progress of the project.
- reserves the right to redirect the work, in agreement with the external representative, in order for the master project work to demonstrate the student’s engineering abilities
- chooses an external expert to evaluate the master project
- plans and organizes the oral defense of the master project

**Expenses**

Expenses incurred for the implementation of the master project (chemicals, analyzations, software, travel, conferences) are to be charged to the responsible institution/laboratory. At the beginning of each semester, the SIE section pays a compensation of CHF 250-300.- per student to the academic representative for each master project they supervise.

**Writing of the report**

The student must prepare a report that contains amongst others:
- the title
- the name of the student
- the name of the EPFL or host laboratory
- the name of the academic representative
- the name of the representative at the host institution
- the work results with a summary in English and in French
- 5 to 8 key words that characterize the project

This report shall be representative of the work conducted and shall be used to evaluate the student’s engineering capacities.

The project is your property but you have the opportunity, only with your approval, to make it available on our webpage.

**Conclusion of the master project**

**Mandatory:**

An electronic version in .pdf format must be emailed to christina.treier@epfl.ch, to the academic representative and to the expert within the given time-frame.

**Only if required by the academic representative or the expert:**

A paper version must be handed to these two people (no paper version is necessary for the Section).

- The student prepares an **oral master project defense** (duration of one hour: presentation (20-30 min maximum), questions (25 min) and final conclusion (5min))

**The academic representative**

- Evaluates the work together with the **external expert** with regards to: a) work quality, b) report quality, c) quality of the oral presentation (see the PDM protocol on the website: [http://enac.epfl.ch/Environmental-Engineering/Master-project](http://enac.epfl.ch/Environmental-Engineering/Master-project)).
- Directly communicates the grade to SAC, after the passed oral defense
- If the project work is judged to be insufficient, the academic representative can ask the student to submit an improved version within two weeks, starting from the date of the oral presentation.
In the case of failure, a new master project must be presented the following semester.

Confidentiality

During the master project, certain data may be confidential. Should this be the case, the host institution must make a written request to the SIE section for a confidentiality contract between the different parties. In this case, the master project report may be classified as “confidential” and returned to the institution after the evaluation of the project.

1 The academic representative corresponds to the Responsible Person / Instructor on ISA: Master Project Registration