

Guidelines for the SIE/ENAC Project

1. Objectives

The SIE/ENAC project, part of the mandatory block, is a research work to be conducted during the Master cycle of the SIE section. This project prepares the student to carry out research in a structured and coherent way.

If the project is of the « ENAC » type, that is to say if it is part of the ENAC design together, one or two students of two different sections bring together their views and their scientific knowledge to conduct research and the supervision includes, in addition to the laboratory professor, one or more professors of other laboratories/sections related to the topic.

For students who wish so, the research work can also be in the same field as the practical master work. It can also be an opportunity to acquire more in-depth research knowledge in a topic of special interest.

The studies are presented in a **report** and eventually defended during an oral presentation in front of a panel.

2. Organisation

The SIE project is worked on individually unless the laboratory or field activities justify group work. It's conducted under the direction of a professor or an internal SIE/ENAC teaching associate. The ENAC project is carried out individually or in a group of two students and is supervised by professors of SIE section or of different sections, depending on the topic.

The supervisor(s) are responsible for:

- advising the students in defining the project topic
- encouraging students to find bibliographic references
- pointing them towards other people to consult
- coaching the students during the semester (a weekly contact, even short, is expected)
- evaluating the work according to the criteria mentioned in point 6

To select a topic, the students have access to the ISA project platform or they can contact a professor or teacher of SIE or ENAC. They can also propose their own topic, which must be accepted by a professor/teacher of the section. The professor/teacher will be in charge of the supervision (or co-supervision) of the project.

The students have the choice to conduct the project either during the M2 or the M3 semester.

3. Registration and schedule

Searching for a topic: the research topic must be selected before the beginning of the semester, as well as the organization of the supervision.

Registration: the registration deadlines on IS-Academia are the same as for the other courses.

Work submission: one week after the semester end or, with exception, as agreed upon with the professor.

4. Report

The report can be written either in French or in English. It should contain essential work elements in the form of text, graphics and images. Important documents and results should be included in the annex.

Structure

- Cover sheet: title - date - name(s) of the student(s) and the section(s) - name of the responsible professor, EPFL official logo
- Official statement (SIE/ENAC project, SIE master)
- Table of content
- One page summary
- Main content: Introduction – Goals – Hypothesis - Methodology – Developments/Results - Conclusion
- Bibliography in alphabetical order by author with numeration corresponding to text references [X]
- Annexes.

Tips for the students

- See the proposals on the ISA platform or on the web pages of the IIE research labs: <https://www.epfl.ch/schools/enac/fr/recherche/institut-dingenierie-de-lenvironnement-ije/>
- Once the topic is chosen and a professor/teacher agreed to supervise your work, you can proceed to the registration on ISA,
- You can start your project during the first week of the semester with a draft timeline, then you:
- Define the problematic and its extent early on,
- Based on a tentative table of content, discuss the topic content and limits with the responsible person. Propose a methodology,
- Schedule the work throughout the semester, do not neglect the writing of the report,
- Think of the presentation: structure, syntax, orthography, general presentation
- Do not mix up the summary, introduction and conclusion,
- All elements taken from an external source must be clearly identified (quotation marks, references, etc...),
- Note down the references throughout the work process

It is important to schedule meetings throughout the semester to discuss the mid-term results and to refine the workplan.

5. Oral presentation

The oral presentation is **optional**, however the SIE section encourages students to present their work. It's not only an opportunity for concluding the conducted work, but also for practicing oral presentation for the oral defense of the master project.

The presentation, of a 15 minute-duration max., is followed by a question and answer session of about 10 minutes. It takes place in front of the professor / responsible person as well as of another person (who can be a member of the same laboratory). Other people or students may also be invited.

A little advice for the slides: they should be easy to read and they should not contain too much information (a dozen lines maximum, one concept per slides). The font size should be adapted to the size of the room.

6. Evaluation

The SIE/ENAC project is worth 4 credits (1 credit corresponds to approximately 30h of work) within the block "Branches obligatoires".

The evaluation criteria for the student's work are the following:

- Synthesis (writing, clarity, concision, structure and quality of the report)
- Analysis (subject depth and mastery, documentation, bibliography)
- Added value (personal contribution)
- Responsibility (clarity of the methodology, traceability of information, etc.)
- Quality of the oral defense

7. Property & confidentiality

The work's propositions and conclusions are solely the responsibility of the student. The text, while remaining the student's property, may not be distributed without the authorization by the professor or responsible person.