Faculté de l'environnement naturel,
architectural et construit (ENAC)
Section des sciences et ingénierie de l'environnement (SIE)

Guide for the individual SIE project (ENV-591,10 cr)

The following general recommendations do not take precedence over any specific instructions that may be given by the host laboratory. It is the student's responsibility to ensure that the recommendations are followed.

1. Foreword

The individual SIE project (ENV-591) has been introduced in the new Master study plan from Fall 2022 on. It is therefore proposed to the students who are under the 2022-2023 plan and after.
It is not available to those enrolled in the 2021-2022 Master's program and earlier.

2. Objectives

The SIE individual project is mandatory and **it is a personal work** to be achieved during the Master cycle. This project prepares the student to carry out research in a structured, coherent and rigorous way.

It is an opportunity to approach a scientific work with the implementation of an adequate methodology and to write a complete and structured report.

For students, it is a chance to work in an EPFL laboratory and to be part of a research team.

The outcomes of the project will be presented in **a report** and defended during an oral presentation in front of a jury.

3. Organisation

The **individual SIE project** must be carried out primarily within a laboratory of the SIE Section. It is conducted under the direction of an SIE professor, an internal lecturer **from SIE, or, exceptionally, by a professor from another EPFL section from a list validated by the SIE Section**.

The supervisor(s) are responsible for :

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

To select a topic, the students will visit the Web pages of the research labs in order to find a topic of interest, as well as they can contact directly a professor or an internal lecturer. They may also propose a topic, which must be accepted by an SIE teacher. The teacher is then responsible for the supervision.

The students have the choice to conduct the project either during the M1, M2, M3 or the M4 semester. However, if the project is done during the same semester as the Design Project, it is necessary to secure enough time to conduct both projects in parallel.

■ Section SIE

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1

Reminder: it is a 10 credits project, that corresponds to about **300 hours** of work along the semester, almost 2.5 days each week.

4. 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. The clock starts ticking on the first day of the semester and it's too late to look for a subject at that time.

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

Work submission: one week after the semester end.

5. Report

The report must be written in the language requested by the laboratory where the project is being carried out (typically English). It should include the essential elements of the work in the form of text, graphics and illustrations. Important documents or developments should be included as appendices.

Structure:

- Cover sheet: title - date - name of the student and the section - name of the responsible professor, EPFL official logo, Project's title
- 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
- Appendices.

Advice for the students :

- See the proposals on the web pages of the IIE research labs :

  https://www.epfl.ch/schools/enac/education/environmental-sciences-and-engineering/projects-by-laboratory/

  - 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 supervisor. 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

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2

- 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.

6. Oral presentation

The oral presentation is **mandatory**. The SIE section encourages students to present their work to the members of the hosting lab. It is not only an opportunity for concluding the conducted work, but also for practicing oral presentation for the future defense of the Master Project.

The presentation, of a 20 minute-duration (approx.), is followed by a questions and answers session. It takes place in front of the professor / responsible person as well as of another person (e.g. the PhD student of the same laboratory). Other people or students may also be invited, but their questions will not be included in the assessment of the work.

7. Evaluation

The individual SIE project is worth **10 credits** (1 credit corresponds to approximately 30h of work) and counts as a mandatory subject.

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

- Synthesis (writing, clarity, conciseness, 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

8. 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.

9. Valorization, communication

Depending on the quality of the results, the Section may ask the student, with the agreement of the person in charge of supervision, to produce a summary (or other form of communication) with the goal to promote the work in the form of a news published on the ENAC website.

For any questions regarding the organization of this project, please contact the SIE Section.

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3