

SECTION DES SCIENCES ET INGÉNIERIE DE L'ENVIRONNEMENT (SIE)
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Master SIE 2023-24

Transition

Version 1.2

Version	Date	Author	Description	Status
1.0	04.02.2022	PY GILLIERON	Disseminated version MA students + teachers	Public
1.1	03.08.2022	PY GILLIERON		Public
1.2	22.08.2023	PY GILLIERON		Public
1.1				Public

1. NEW MA-SIE PLAN

1.1 Structure

The SIE 2023-24 Master's program plan has the following structure:

- - Block 1: Projects & SHS, 26 credits
- - Block 2: SIE core courses; 15 credits
 - o 4 courses of 5 credits each are offered and 3 must be chosen
- - Group 1: SIE optional courses; 49 credits

Compared to the 2021-22 Master's version, the structure does not fundamentally change, which **allows for continuity** for those who started under this version.

1.2 Specializations

The new plan proposes, for the moment, 4 specializations, whose validation principle remains the same (30 cr). The 4 specializations are the following:

- D. Water Resources and Management
- E. Climate Change Adaptation and Anticipation
- F. Environmental Sensing and Computation
- G. Biological and Chemical Processes in Environmental Engineering

1.3 Differences between the plans

The following table gives an overview of the similarities and differences between the 2 Master plans.

Element	2021-22 and before	New plan 2023-24	Remarks
Block 1 : Core courses (21-22) Projects & SHS (23-24)	-Design projects : 10 cr -SIE Projet, ENAC : 4 cr -SHS : intro project : 3cr -SHS : project : 3 cr Total : 20cr	-Design projects : 10 cr -Individual SIE Projet: 10 cr -SHS : intro project : 3cr -SHS : project : 3 cr Total : 26cr	The SIE project (4 cr) remains available for those who are on the 21-22 plan.
Block 2 : SIE specific courses (21-22) SIE core courses (23-24)	-6 courses of 5 credits each -5 courses to be chosen Total : 25 cr	-4 courses of 5 credits each -3 courses to be chosen Total : 15 cr	
Group 1 : SIE optional courses (21-22) SIE optional courses (23-24)	-45 cr. to be chosen among the whole list (over 130 credits)	-49 cr. to be chosen among the whole list (over 160 credits)	
Specializations	A : Chemical and environmental bioprocess B : Water, soil and ecosystems engineering C : Modeling and monitoring of the enviro.	D. Water Resources and Management E. Climate Change Adaptation and Anticipation F. Environmental Sensing and Computation G. Biological and Chemical Processes in Environmental Engineering	A related to G C related to F
Minors	Usual offer	Usual offer	

2. TRANSITION 2023-2024

This section specifies the transitional regime that will be put in place for students who have already started the Master's program under the 2021-2022 regime or earlier. The transitional rules were discussed with the EPFL Academic Service (SAC) in Spring 2022.

2.1 Principle

Students who started their Master's degree before the introduction of the new plan will benefit from a transitional regime so that they can finish their studies under the initial conditions.

- The structure and regulations of the Master's degree plan corresponding to the year in which it was started will be maintained

2.2 Block of projects

For the block of projects :

- The number of credits to be acquired remains at 20
- The SIE (ENV-597) or ENAC (PENS-490) project (4 cr) must be chosen from the options group
 - o They will be transferred to block 1 of the projects
- It is not possible to take the individual SIE Project of 10 cr. (ENV-591)
- The rest of the projects (SHS, Design Project) do not change

2.3 Block of core courses

Course	Status	Cr.	Transition rules
ENV-409 Air pollution	Offered in the options	5	Course can be chosen and it will count in block 2 "SIE specific courses"
ENG-420 Environmental transport phenomena	Offered in the options	5	Course can be chosen and it will count in block 2 "SIE specific courses"
Geomonitoring	Is no longer taught		It can be replaced by ENV-408 « Sensing and spatial modeling for earth observation". Students will have 2 tentatives with this new course.
Spatial statistics and analysis	Is no longer taught		It can be replaced by ENV-408 « Sensing and spatial modeling for earth observation". Students will have 2 tentatives with this new course.
ENV-405 Water and wastewater treatment	Remains within the core courses	5	No change
ENV-424 Water resources engineering	Remains within the core courses	5	No change
ENV-407 Atmospheric processes: from cloud to global scales	New core course	5	It can be taken as a course that will count in block 2 "SIE specific courses"
ENV-408 Sensing and spatial modeling for earth observation	New core course	5	It can be taken as a course that will count in block 2 "SIE specific courses"

We remind you of the block rule where credits are validated when the grade is ≥ 4.0 or the block average is ≥ 4.0 . If you take more than 5 courses, we cannot delete a course whose grade would be < 4.0 , and therefore the average will be calculated on all courses of block 2.

2.4 Options and specializations

For the optional group and specializations, the following principles are defined:

- All elective courses are available to students under the 21-22 conditions
- New courses or transfers made since the 21-22 study plan are assigned to specializations A, B and C
 - o An **Excel table** edited by the SIE Section gives the details of this information (see annex)
- Students under the 21-22 regime, who would not be registered in a specialization, can still do so, but only for specializations A, B and C

2.5 Internship and Master thesis

The rules for the internship and the Master thesis do not change.

These rules were established and validated by the SIE section on February 4th, 2022, and updated on August 22nd 2023