

Regulation concerning the Doctoral Program in Materials Science and Engineering (EDMX)

Please note that only the French version is legally binding.

Effective June 12, 2025

The EDMX Doctoral Program Committee,

Taking into account art. 3 al. 3 and 6 al. 2 of the Ordinance on the Doctorate conferred by the École Polytechnique Fédérale de Lausanne of January 26, 1998¹ and art. 2 al. 4 ch. 3 of the Directives concerning doctoral studies at the École Polytechnique Fédérale de Lausanne of November 21, 2005,²

Decrees:

1. Field of Application

The regulation concerning the doctoral program in Materials Science and Engineering (hereinafter: EDMX program) sets forth the rules relating to the study plan of the EDMX program as well as the candidacy exam for the formal admission to start the doctoral thesis in the EDMX program of the EPFL. Furthermore, it reiterates and details the application of certain essential rules concerning the doctorate at the EPFL.

2. Study Plan

- 2.1 The study plan of the EDMX program requires **12 ECTS credits** (European Credit Transfer and Accumulation System).
- 2.2 At least **4 ECTS credits of these 12 ECTS credits** must be obtained during the first year of doctoral studies.
- 2.3 **The total number of credits** must be acquired through the successful completion of courses from the list of courses offered by EDMX, or any doctoral or Master courses - provided that the course was not taken during the Master studies - offered by EPFL, a Swiss or foreign university. External courses must be approved by the Thesis Director and must follow a motivated request addressed to the EDMX administration before the beginning of the course. The Program Director authorizes the validation of credits and sets the conditions on a case-by-case basis. All courses (including summer/winter schools) must result in an examination (written report, oral examination, etc.) to obtain the credit(s) recognized as equivalence credits. A maximum of 4 ECTS credits per external course will be granted. No credits are awarded for Bachelor courses and language courses.

¹ RS 414.133.2

² EPFL LEX 2.4.1

- 2.4 **Up to 4 ECTS credits** - except those required for the first year - may be chosen by doctoral candidates from all EPFL doctoral course books (including transversal skills), without the approval of the Program Committee or the Thesis Directors (decision of the Doctoral Commission, Cdoct 107, May 2015).

3. Candidacy Exam

- 3.1 To be formally admitted to start a doctoral thesis at the EPFL, the doctoral candidate must successfully pass the candidacy exam at the end of the 1st year of the doctoral studies (art. 6 and 8 al. 1 let. a of the Ordinance on the Doctorate and art. 8 al. 1 and 2 of the Directives concerning doctoral studies at the EPFL). The candidacy exam consists of an oral presentation by the candidate about the research proposal. It is followed by a question-and-answer session lead by the expert and Jury President and an optional question-and-answer session lead by the Thesis Director and if applicable Thesis Co-Director. The candidate must demonstrate the originality of the thesis subject, the objectives and methods envisaged, as well as the hypotheses and related scientific arguments, including the general context of the thesis subject, state of the art of the research in the area, positioning of the work within the research area, plan and methodology for the research project including a data management plan, as well as the timeframe for its completion.
- 3.2 The jury of the candidacy exam is composed of the Thesis Director and the Thesis Co-Director (if applicable), the Jury President (member of the EDMX Committee), as well as a Professor, Senior Research Scientist (MER) or other EPFL collaborator authorized to fulfil the function of Thesis Director at EPFL and approved by the EDMX Program Director. Upon request, a second expert, also member of the EPFL faculty, may be approved by the Program Director. This person will participate in the candidacy exam as an auditor and will not be able to comment on the exam.
- 3.3 The jury evaluates the candidate's potential ability to conduct research leading to a Ph.D. degree on the basis of the following principal criteria:
- Pertinence and originality of the thesis subject
 - Quality of scientific argumentation
 - Clarity and rigour of the research plan
 - Language skills, reporting, data management and communication
 - Candidate's responses to the jury's questions
- 3.4 After the jury deliberation, the Jury President verbally informs the candidate of the result of the candidacy exam. A written protocol is established for every candidacy exam. Possible jury recommendations are communicated to the candidate in writing by the Jury President. The candidate then receives from the EPFL a decision to formally admit or refuse the start of a doctoral thesis at the EPFL (art. 8 al. 2 of the Ordinance on the Doctorate).
- 3.5 Approximately a year after the candidacy exam, the doctoral candidate organizes a scientific discussion with the expert, the Thesis Director and if applicable the Thesis Co-Director.

4. Annual Report

- 4.1 During their thesis work, doctoral candidates are obliged to submit an annual progress report (art. 10 al. 3 and al. 4 of the Ordinance on the Doctorate). Doctoral candidates who passed the candidacy exam before October 1 of the previous year, up to 6 months before the end of the thesis will receive a request to submit their annual report by March 31, every year.
- 4.2 The candidate submits a summary of the progress of the work, as well as a self-evaluation. At the same time, the Thesis Director and the Thesis Co-Director if applicable complete a similar progress assessment.

- 4.3 Then a collaborative meeting is organized between the candidate, the Thesis Director and the Thesis Co-Director if applicable. The finalized report is co-signed by all parties.
- 4.4 The candidate discusses the progress and its wider context with the mentor and both confirm in the annual report tool that they have met.
- 4.5 If the annual report is rated as “needs some improvement” or “unsatisfactory” or the doctoral candidate disagrees with the content of the report, the Program Director initiates a meeting to discuss the situation and, if needed, takes the necessary action (art. 12 al. 1 of the Ordinance of the doctorate and art. 12 al. 2 of the Directives concerning doctoral studies at the EPFL).
- 4.6 The candidate ensures that the above process is finalized for the deadline of March 31 of the current year.

5. Mentoring

- 5.1 Within 3 months after the enrollment, the doctoral candidate will be assigned a mentor from the EDMX mentor pool by the doctoral program. Candidates may change mentors with the agreement of the Program Director.
- 5.2 The mentor remains anonymous to the Thesis Director (the candidate is free to choose whether or not the mentor remains anonymous). Mentors offer advice to candidates on academic or career choices, as well as on resolving any difficulties they may have in the course of their training, particularly regarding the progress of the thesis or a conflict.
- 5.3 The candidates may contact their mentor whenever they deem it necessary. The candidate and the mentor meet at least once a year as part of the annual report. Exchanges between candidates and their mentor should remain confidential unless both parties agree to disclosure to the Program Director.
- 5.4 It is recommended that the candidate's mentor does not participate in, or preside, the candidacy exam or the oral thesis exam.

6. Final Provisions

The present regulation shall take effect on June 12, 2025 and replaces any prior EDMX doctoral program regulation.

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