

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

Please note that only the French version is legally binding.

Effective January 1st, 2023

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 other course offered by the doctoral programs and the Doctoral School, or by Master's courses (provided that the course was not taken during the Master's studies) of

¹ RS 414.133.2

² EPFL LEX 2.4.1

EPFL. They may also be taken at 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.) in order to obtain the credit(s) recognized as equivalence credits. No credits are awarded for Bachelor courses.

- 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 transferable 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 candidate must successfully pass the candidacy exam at the end of the 1st year of 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 of approximately thirty minutes by the candidate about the research proposal. It is followed by questions from the jury. 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 research in the area, positioning of the work within the research area, plan and methodology for the research project 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 the 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 jury deliberations, the Thesis Director 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).

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 Ordonnance sur le doctorat à l'EPFL), the first time one year after their candidacy exam.
- 4.2 The candidate submits a summary of the progress of the work, as well as a point-by-point self-evaluation. At the same time, the Thesis Director (and the Co-Director if applicable) completes a similar progress assessment.
- 4.3 After a collaborative meeting and the oral presentation of the progress of the work, the report is co-signed, in the annual report tool, by the candidate and the Thesis Director (and Co-Director if applicable). The second-year candidate invites the members of the candidacy exam to this discussion. The jury President of the candidacy exam participates by invitation only, in case of problems related to the thesis. The candidate sends the presentation documents (in PDF format) to the EDMX administration. Third-year candidates are encouraged, but not obliged, to follow this procedure.
- 4.4 Then, the candidate discusses on the progress and its wider context with the mentor and both confirm in the annual report tool that they have met, without mentioning the content of the discussion which is confidential.
- 4.5 Finally, the Program Director signs the report.
- 4.6 The candidate ensures that the above process is finalized within one month.

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 January 1st 2023, and replaces any prior EDMX doctoral program regulation.

For the EDMX Doctoral Program Committee:
Prof. Dirk Grundler
Program Director
École polytechnique Fédérale de Lausanne



For the Doctoral School:
Prof. Luisa Lambertini
Associate Vice President for Postgraduate Education
École polytechnique Fédérale de Lausanne