

RULES FOR THE APPLICATION OF THE STUDY CONTROL OF THE ELECTRICAL ENGINEERING SECTION FOR THE MASTER IN ENERGY SCIENCE AND TECHNOLOGY for the academic year 2021- 2022 May 26 2021

The management of the Swiss Federal Institute of Technology Lausanne

Having regard to the ordinance on education leading to the bachelor's and master's degrees of the EPFL of June 14, 2004, Having regard to the ordinance on the control of studies leading to the bachelor's and master's degrees at EPFL of June 30, 2015, having regard to the study plan of the physics section for the master in nuclear engineering

stop:

Art. 1 - Scope of application

The present regulation establishes the rules for the control of the master's degree of the section of Electrical and Electronic Engineering for the master's degree in Energy Science and Technology that refer to the academic year 2021-2022.

Art. 2 - Training stages

The Master in Energy Science and Technology is composed of two successive stages of training:

- the three-semester master's program, which requires 90 credits to complete the master's project.
- the master project, which lasts 17 weeks and requires 30 credits, is placed under the responsibility of an EPFL professor or MER. The section may extend the duration of the master's project to 25 weeks for projects carried out outside EPFL (in a company or in an academic environment outside EPFL).

Art. 3 - Examination sessions

- 1 Sessional courses are examined during the winter or summer sessions. They are mentioned in the study plan with the mention H or E.
- 2 Semester courses are taken in the fall or spring semester. They are indicated in the syllabus as sem A or sem P.
- 3 An annual branch, i.e., one that is titled on a single line in the study plan, is examined as a whole during the summer session (E).
- 4 For the sessional branches, the written or oral form of the examination indicated for the session may be supplemented by written or oral tests of knowledge during the semester, as indicated by the instructor.

Art. 4 - Admission requirements

- 1 Students with an EPFL Bachelor's degree are admitted if their overall Bachelor's average is greater than or equal to 4,50.
- 2 For other students, admission is by application.

Art. 5- Organization

- 1 The courses of the Master's program are divided into two blocks and three groups whose credits must be obtained independently.
- 2 Block 1 "Common core courses" is composed of core courses⁷ for a total of ECTS 22.
- 3 Group 2 "Complement" is an upgrade allowing all students to have a broader common base. It is composed of a set of courses, some of which are compulsory depending on the student's profile. The student must complete the group by taking complementary optional courses up to 20 ECTS.
- 4 Group 3 "Orientation" allows the student to reinforce his knowledge in one of the major fields of Energy. At the beginning of the master, the student chooses one of the following 3 orientations:
 - Energy conversion devices ;
 - Energy systems ;
 - Energy management and sustainability.and registers for at least ECTS 23 in the orientation they have selected.
- 5 Group 4 "Options" is composed of all the branches of the study plan that have not been chosen by the student in the other groups. The student can also choose to do a semester project with 9 ECTS.
- 6 Block 5 "Projects" is composed of a semester project of 10 ECTS and the SHS teaching of 6 ECTS.
- 7 Exceptionally, courses may be chosen outside the list of courses in this study plan. Their choice must be validated by the Master's program director.

Art. 6 - Examination of the master cycle

- 1 Block 1 "Common core courses" is passed when **credits 23** are earned.
- 2 Group 2 "Complement" is passed when **at least 20 credits** are earned.
- 3 Group 3 "Orientation" is passed when **at least credits 22** are earned.
- 4 Group 4 "Options" is passed when **at least 9 credits** are earned.
- 5 The "Projects" block⁵ is passed when **credits 16** are obtained.

Art. 7 - SHS Education

The two SHS branches are each worth 3 credits. The fall semester course introduces the spring semester project. The College of Humanities and Social Sciences may depart from this organization if it considers that the reason is justified. It may also authorize a student to carry out his or her project in a semester that does not immediately follow the semester in which the introductory teaching takes place.

Art. 8 - Engineering internship

1 During their Master's degree, students must complete an engineering internship lasting a minimum of 8 weeks and a maximum of 6 months. However, the completion of a 25-week master's project in a company exempts students from this obligation.

2 As a general rule, this internship must be completed after two semesters of the master's program, but before the master's project.

3 The section's internship supervisor evaluates the internship, by giving a "successful" or "unsuccessful" assessment. Its success will be a condition for admission to the master project. If it is not successful, it may be repeated once, generally in another company.

4 It is validated with the 30 credits of the master project.

5 The organization of the internship and the criteria for its validation are the subject of an internal directive of the section.

On behalf of the EPFL management

The President, M. Vetterli
Vice President for Education, J. S. Hesthaven

Lausanne, May 26 2021