REGULATIONS FOR THE CONTROL OF STUDIES OF THE SECTION OF MATHEMATICS FOR THE MASTER IN COMPUTATIONAL SCIENCE AND ENGINEERING
for the 2021-2022 academic year
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 mathematics section for the master in Computational Science and Engineering.

stop:

Art. 1 - Scope of application

The present regulation sets the rules for the application of the control of the master's studies of the section of mathematics for the master's degree in Computational Science and Engineering that refer to the academic year 2021-2022.

Art. 2 - Training stages

The Master's degree in Computational Science and Engineering consists of two successive stages of training:
- the three-semester master's program, which requires 90 credits to complete the master's project.
- the 17-week Master's project, the successful completion of which implies the acquisition of 30 credits. It is placed under the responsibility of a professor or MER who teaches a course in the Master's program in Computational Science and Engineering. The Master project begins on the first day of classes of a semester, as indicated in the academic calendar.

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.

5. In the event of a first failure in an optional branch of mathematics, the student may, on a second attempt, retake the subject for which credits were not obtained in the following session.

Chapter 1: Master of Science in Computational Science and Engineering

Art. 4 - Admission requirements

This master's program requires an admission decision from the vice president for academic affairs.

Art. 5 - Organization

1 The Mathematics Section offers the Master of Science in Computational Science and Engineering.

2 The 90 credits of the master cycle are distributed as follows:
-60 in elective courses
-24 in computational science projects (normally only one in the mathematics section)
-6 in humanities and social sciences

3 A computational science project is a semester-long course, the successful completion of which allows the student to acquire 8 credits. It is placed under the responsibility of a master affiliated to the master.

4 An engineering internship of at least 8 weeks and a maximum of 6 months is placed under the responsibility of a master affiliated with the master and must be validated by the Mathematics section. Successful completion of the internship allows the acquisition of 8 credits.

5 A student who began his or her Master's degree in the spring of 2021 may be subject to the 2021-2022 study plan upon approval of the section.

Art. 6 - Examination of the master cycle

1 The "Basic Course" block is passed when the **credits24 of** the study plan are obtained.

2 The " Modeling and Numerical Methods " group is passed when **credits36** from the study plan are obtained. The student chooses 3 lists among A, B, C, D; for each of these 3 lists, at least 8 credits are obtained independently by individual success in each branch. The lists A, B, C and D are defined in the study plan.

3 The group of semester branches "Projects and SHS" is passed when the **30 credits** are obtained independently by individual success in each branch.

4 The engineering internship is carried out after the first semester of the Master cycle and before the beginning of the Master project. In addition, art. 15 al. 2 and 4 of the regulations of the Mathematics section is applicable.

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.

Chapter 2: Minor

Art. 8 - Minor in Computational Science and Engineering

1 The Mathematics Section offers a minor in Computational Science and Engineering for other EPFL Masters.

2 The 30 credits for the minor are distributed as follows:

- 22 in the master's degree courses in Computational Science and Engineering. The choice must be validated by the mathematics section
- 8 in Computational Science and Engineering projects.

On behalf of the EPFL management

The President, M. Vetterli
Academic Vice President, J. S. Hesthaven

Lausanne, May 26 2021