REGULATIONS FOR THE CONTROL OF THE
STUDIES OF THE SECTION
OF MECHANICAL ENGINEERING
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 mechanical
engineering section

stop:

Art. 1 - Scope of application

The present regulations establish the rules of application for
the control of the bachelor and master studies of the
mechanical engineering section which refer to the academic
year 2021-2022.

Art. 2 - Training stages

1 The bachelor's degree is composed of two successive
stages of training:
- the one-year propaedeutic cycle, the successful completion
of which results in 60 ECTS credits acquired at once, a
condition for entry into the bachelor's cycle.
- the two-year Bachelor's program, which requires 120
credits for entry into the Master's program.

2 The master's degree is composed of two successive
stages of training:
- the master's program, which lasts 3 semesters and requires
the acquisition of 90 credits, a condition for the master's
project.
- the master project, which lasts 17 weeks if carried out at
EPFL or 25 weeks if carried out outside EPFL, and which, if
successfully completed, results in the acquisition of 30
credits.
It is placed under the responsibility of a professor or MER
affiliated to the Mechanical Engineering Section.

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.

Chapter 1: Preparatory Cycle

Art. 4 - Preliminary examination

1 The propaedeutic exam includes "Polytechnic"
branches for coefficients 38 and "Specific" branches for
coefficients 22, distributed indifferently on two blocks.

2 The first block of branches corresponds to
30 coefficients and the second block of branches
corresponds to coefficients30.

3 The propaedeutic examination is passed when:
- the student has obtained, at the end of the winter semester,
a grade point average equal to or greater than 3.50 in the
first block, which is a requirement for entry into the spring
semester, and
- they have obtained, at the end of the summer session, an
average of 4.00 or more in each of the two blocks, which is a
condition for entry into the bachelor's program.

4 A student who fails the propaedeutic examination will
not be allowed to repeat the following year the semester
branches for which he/she has obtained a mark equal to or
higher than 4.00.

Chapter 2: Bachelor's Degree

Art. 5 - Organization

The courses of the Bachelor cycle are divided into
6 blocks.

Art. 6 - Choice of branches

1 Block 4 includes electives for the 6th semester. The
student chooses these courses according to the study plan for
a minimum of 8 credits.

2 Some branches are prerequisites for master's degree
courses, and the choice must be made according to the
planned master's program.

Art. 7 - 2ème year examination

1 Block 1 is passed when the credits 35 of the study plan
are obtained.

2 Block 2 is passed when the credits 21 of the study plan
are obtained.

Art. 8 - 3ème year examination

This document is an automatic translation of the French version. Only the French version is legally binding.
1 Block 3 is passed when the **credits 39** of the study plan are obtained.

2 Block 4 "Options" is passed when the **8 credits** of the study plan are obtained.

3 Block 5 is passed when the **credits 9** of the study plan are obtained.

**Art. 9 - 2ème and 3ème year examination**

Block 6 "SHS and Cross-Curricular MGT" is passed when the **credits 8** of the study plan are obtained.

**Chapter 3: Master Cycle**

**Art. 10 - Organization**

The teaching in the master cycle is divided into a block (16 ECTS) and a group (74 ECTS).

**Art. 11 - Prerequisites**

1 Elective courses may require prerequisites that are mentioned in the course description. The prerequisite course is validated if the corresponding credits have been acquired for the course or by block average.

2 Elective courses in the Bachelor's program may be prerequisites for the Master's program.

**Art. 12 - Choice of branches**

1 The student chooses branches according to the Master's cycle study plan for a minimum of **74 credits** (44 credits if the student follows a 30-credit minor). With the approval of the section director, some of these subjects, up to a maximum of 2 courses, may be included in the choice of courses for the bachelor's cycle.

2 At the beginning of the Master's program, students can choose one of the 6 specializations in mechanical engineering:

   A Fluid mechanics
   B Automation and systems
   C Conception and Production
   D Thermal Sciences
   E Mécanique des solides et des structures
   F Biomechanics

3 The Master's degree courses are identified in the SGM syllabus and in the list of recommended courses by the letters A, B, C, D, E and F corresponding to the fields defined by the specializations.

4 A minimum of 30 credits is required to successfully complete a major.

5 Specializations include 8 to 30 credits of "core" advised courses (in **bold** in the "specialization" column) to be selected from the list defined in the syllabus. Advising courses from the same field must be added to complete the 30 total credits required.

**Art. 13 - Examination of the master cycle**

1 The "Projects" block, including SHS instruction, is passed when the **16 credits** of the syllabus are obtained. The required 10-credit Mechanical Engineering I semester project must be conducted in a Mechanical Engineering laboratory or one affiliated with the Mechanical Engineering Section. If the project takes place in a non-MSE laboratory, the student must obtain prior approval from the section chair. This approval will be obtained only if the project is related to a specialization and with the agreement of the department head.

2 The "Options" group is passed when the **credits 74** (44 credits if the student is taking a minor) are obtained independently by passing each branch individually. The 10-credit Mechanical Engineering II elective project may be taken outside of MGT with prior approval of the section director. The course "MGT-555 Innovation & entrepreneurship in engineering" falls under the same regulation as the GM II project and will be counted toward the 44 MGS credits, if the student does not complete a GM II project. If the student enrolls a GM II project, then the MGT-555 credits will count toward the 30 non-GM course credits.

3 The "specialization," including the core courses and area-advised courses, is successfully completed when the 30 credits of the plan of study are obtained.

4 A student wishing to complete a minor must validate 30 credits in a minor.

**Art. 14 - 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.
Ar. 15 - Elective Courses in Other Sections

To qualify for a Master's degree in Mechanical Engineering, students must have acquired a minimum of credits (14 if the student is taking a specialization) in courses from the "Options" group among those proposed in the SGM study plan or in the lists of recommended courses.

Ar. 16 - Minors

1. In order to deepen a particular aspect of his or her training or to develop interfaces with other EPFL sections, the student may choose to follow the training offered in the framework of a minor included in the EPFL offer.

2. The choice of courses that make up the minor is made with the Mechanical Engineering section and the minor's chair. The "Mechanical Engineering" minor may not be selected.

3. The student announces the choice of a minor to his or her section no later than the end of the first semester of master's studies.

4. A minor is successful when a minimum of 30 credits are earned from the endorsed branches.

5. If the minor is dropped during the course of study, the Mechanical Engineering Section determines the number of validated credits to be transferred to the option groups.

6. Validation of a minor does not allow for recognition of the specialization in the diploma supplement.

Ar. 17 - Double Degree

1. The mechanical engineering section offers its students the possibility of obtaining a double degree, based on agreements between EPFL and certain accredited institutions.

2. The requirements for a double degree are as follows:
   - the student must have obtained his or her bachelor's degree at EPFL.
   - the student must have validated at least 60 ECTS credits in the master cycle at EPFL.
   - the student must have validated a total of at least 150 ECTS credits between the two institutions according to a study program approved by the section, 120 ECTS credits including a master project of 30 ECTS credits being taken into account by EPFL to deliver the master.

3. The instructions of the Section, including the admission criteria, for each approved institution shall apply.

Chapter 4: Internship and master project

Ar. 18 - Engineering internship

1. Students must complete an engineering internship of at least 8 weeks and no more than 6 months. However, the completion of a 25-week master's project in a company exempts students from this obligation.

2. The internship will take place between the end of the Bachelor's program and the beginning of the Master's project.

3. The section's internship supervisor evaluates the internship with a "pass" or "fail" rating. Successful completion is a condition for admission to the Master project. If the internship is not successful, it can be repeated once, usually 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.

Ar. 19 - Master project

1. The repetition of the PdM, carried out in industry or in a foreign university, i.e. "outside EPFL", will automatically have to be done in an EPFL laboratory. Students who have not yet completed an engineering internship may be exempted from this requirement if the first attempt at the MDP was done in industry and if the student spent at least 8 weeks in the company.

Chapter 5: Mobility

Ar. 20- Authorized periods of mobility

Students of the mechanical engineering section can carry out a mobility stay during the bachelor year 3rd and/or in the framework of the master project.

Ar. 21 - Conditions

1. For a mobility in the Bachelor year 3rd, the student must have passed the propaedeutic exam with a minimum average of 4.5 and not be behind in the acquisition of the 60 credits of the 2nd year of the Bachelor.

2. For a mobility to the master project, the student can be conditionally admitted if he/she has no more than 8 missing credits in the master cycle.

3. Specific conditions exist depending on the destination, the agreement of the mobility delegate is necessary to go on a mobility stay.

On behalf of the EPFL management

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

Lausanne, May 2021 26.