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 syllabus of the Chemistry and Chemical Engineering Section

stop:

Art. 1 - Scope of application

The present regulation establishes the rules of application for the control of the bachelor and master studies of the section of Chemistry and Chemical Engineering which refer to the 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 to enter the Master's program.

2 The Master's degree in Molecular and Biological Chemistry is composed of two successive stages of training:
   - The Master's program lasts 3 semesters and requires the acquisition of 90 credits, of which 60 are teaching credits and 30 are acquired through the successful completion of a 14-week project (Project in molecular sciences II) or a minor, which is a prerequisite for the Master's project.
   - the master project, which lasts 17 weeks at EPFL or 25 weeks 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 Chemistry and Chemical Engineering Section. The MDPs start on a Monday (including June-July) in agreement with the supervisor and the section.

3 The Master's degree in Chemical Engineering and Biotechnology consists of two successive stages of training:
   - the master's cycle, which lasts 3 semesters and requires the acquisition of 90 credits, of which 60 are teaching credits and 30 are credits acquired through the successful completion of an engineering internship or a minor, which is a prerequisite for completing the master's project.
   - the master project, which lasts 17 weeks at EPFL or 25 weeks 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 Chemistry and Chemical Engineering Section. The MDPs

Chapter 1: Preparatory Cycle

Art. 4 - Preliminary examination

1 The propaedeutic exam includes "Polytechnic" branches for coefficients 53 and "Specific" branches for coefficients 7, distributed over two blocks.

2 The first block of branches corresponds to coefficients 45, and the second block of branches corresponds to coefficients 15.

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

1 The Bachelor's degree courses are divided between the 2nd and 3rd years as follows:
   - 56 credits of required 2nd year courses
   - A compulsory transversal SHS block worth credits spread over the 2nd and 3rd years.
   - 56 Chemistry or chemical engineering orientation credits

2 To enter the Master of Molecular and Biological Chemistry without prerequisite, the student must obtain the 56 compulsory credits, the 28 credits of blocks 4 and 6 and 36 credits associated with 3 modules of the chemistry orientation.
3 To enter the Master of Chemical Engineering and Biotechnology without prerequisites, the student must obtain the 56 mandatory credits and 64 credits associated with blocks 4 to 8 of the chemical engineering orientation and the 6 credits of group 7.

4 The student must choose one of the two orientations before starting the 3rd year of the bachelor program.

Art. 6 - 3rd year prerequisites

Compulsory and 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 the block average.

Art. 7 - 2nd year examination

1 Block 1 is passed when the credits 18 of the study plan are obtained.

2 Block 2 is passed when the credits 23 of the study plan are obtained.

3 Block 3 is passed when the credits 15 of the study plan are obtained.

Art. 8 - 3rd year examination

1 The Chemistry orientation is successful when:
   • The 20 credits of block 4 are obtained.
   • The 36 credits of 3 modules are obtained. Modules 1 to 4 each constitute a block. Module 5 is a group.

2 The Chemical Engineering major is successful when:
   • The 17 credits of Block 4 are obtained.
   • Block 5 credits 17 are earned.
   • The 16 credits of block 6 are obtained.
   • The 6 elective credits in Group 7 are obtained by individual success in the branches.

Art. 9 - 2nd and 3rd year examination

The Chemistry orientation block respectively Block 8 Chemical Engineering orientation " SHS and transversal MGT " is passed when the credits 8 of the study plan are obtained.

Chapter 3: Master of Science in Molecular and Biological Chemistry

Art. 10 - Organization

The credits 90 of the master cycle are divided into:
-24 module credits
-12 elective credits
-24 project credits including SHS teaching

30 credits for a 14-week project (Project in molecular sciences II)

Art. 11 - Examination of the master cycle of molecular and biological chemistry

1 Block 1 is passed when the credits 24 associated with three modules of 8 credits each are obtained.

2 Group 2 is passed when credits 12 are obtained, by individual passing of the branches included in this group or selectable from the courses of block 1, of master courses offered by other sections or of the 3rd year of the Bachelor, with a minimum of 6 credits to be taken in branches of the Master of Molecular and Biological Chemistry. Courses selected in Block 1 are considered definitively assigned to Group 2 after the 8th week of the current academic semester. Courses chosen from other study plans must be approved by the study advisor/section.

3 Block 3 is passed when the 24 credits of the study plan are obtained.

4 The Projects in molecular sciences Ia and Ib are generally carried out successively over two consecutive semesters under the supervision of a professor or MER of the Section. The student is allowed to do them in another unit of the EPFL if a professor or MER of the Section participates in their supervision.

5 The 30 credits in Group 4 are earned by successfully completing the Project in molecular sciences II or by completing a minor listed in the section's offering.

Art. 12 - 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. 13 - Project in molecular sciences II

1 The Project in molecular sciences II is carried out after validation by the section in a public or semi-private research institute for a period of 4 months or in a company which can then be extended to 6 months. The work in a company is a condition for the master project which must be carried out in an academic environment. The Project in molecular sciences II can only be done after having completed two semesters of the master cycle.

2 At the end of the course, the Project in molecular sciences II is evaluated with the grade "passed" or "not passed". Its successful completion allows the acquisition of 30 credits. In case of failure, the work can be repeated once, usually in another EPFL unit.

This document is an automatic translation of the French version. Only the French version is legally binding.
The organization of the Project in molecular sciences II and the criteria for its success are set out in the section's internal regulations.

Chapter 3: Master of Science in Chemical Engineering and Biotechnology

Art. 14 - Organization

The 90 credits of the master cycle are divided into:
- 10 required course credits
- 28 option credits
- 22 laboratory credits and projects including SHS teaching
- 30 credits for the engineering internship

Art. 15 - Examination of the master cycle of chemical engineering and biotechnology

1 Block 1 is passed when the credits 10 of the study plan are obtained.

2 Group 2 is passed when the credits 28 of the study plan are obtained. The themes are an aid to the student's decision to choose courses of interest from the Group 2 list. Up to 10 credits may be selected from courses in the Master of Molecular and Biological Chemistry, from Master's courses offered by other sections or from the 3rd year of the Bachelor's program, provided that they are approved by the student's advisor/section.

3 Block 3 is passed when the credits 22 of the study plan are obtained.

4 The 30 credits of group 4 are acquired by successfully completing an engineering internship or by obtaining a minor listed in the EPFL offer. The engineering internship is a prerequisite for the master's project, which must be carried out in an academic environment for a period of 17 weeks at EPFL or 25 weeks if outside EPFL. The minor is a condition for the master project, which must be carried out in a company, over a period of 25 weeks.

Art. 16 - 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 took place.

Art 17 - Engineering internship

1 The engineering internship lasts from 4 to 6 months. It can only be done after having completed two semesters of the master's program.

2 At the end of the course, the internship is evaluated and given a "successful" or "unsuccessful" rating. Successful completion of the internship allows the acquisition of 30 credits. In case of failure, the internship can be repeated once, usually in another company.

Chapter 5: Minors

Art 18- Minor

1 In order to deepen a particular aspect of their training or to develop interfaces with other EPFL sections, students taking the Master of Molecular and Biological Chemistry are authorized to follow the training offered in the framework of a minor listed in the section's offer under the conditions specified in art. 11 al.5 Similarly, the student who follows the Master of Chemical Engineering and Biotechnology can choose to follow a minor according to the conditions specified in art. 15 al.4

2 The choice of the courses that make up the minor is made in agreement with the Chemistry and Chemical Engineering section and with the person responsible for the minor. The minor in chemistry and chemical engineering cannot be chosen in either of the two master's degrees and the minor in biotechnology cannot be chosen in the master's degree in chemical engineering and biotechnology.

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.

Chapter 6: Mobility

Art 19- Authorized periods of mobility

Students of the Chemistry and Chemical Engineering section can carry out a mobility stay during their Bachelor's 3rd year and/or as part of the Master's project.
Art. 20- Conditions

1 For a mobility in the 3rd year of the Bachelor program, 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 program.

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 26 2021