

Department of Biosystems Science and Engineering Internship Regulations 2017 for the Industry Internship

in the Master's degree programmes

- Biotechnology
- Computational Biology and Bioinformatics

Version: 19 September 2017¹ (Version: 1. September 2021²)

Art. 1 Subject and scope

¹ These Internship Regulations stipulate the requirements for acquiring credits via the industry internship of the Master's degree programmes in Biotechnology and Computational Biology and Bioinformatics of the ETH Zurich Department of Biosystems Science and Engineering (D-BSSE).

² In the Master's degree programme in Biotechnology the industry internship belongs to the category "Research Project or Industry Internship"³.

³ In the Master's degree programme in Computational Biology and Bioinformatics the industry internship belongs to the category "Applications".

Art. 2 Goal of the industry internship

During the industry internship the students – as future biotechnologists, bioinformaticians or computational biologists (Master of Science ETH) – gain a broad view of the various levels of performance generation in industry. The goal is to further their understanding of economic solutions to biotechnical or bioinformatics problems which take into account the special characteristics of biological systems, quality assurance regulations, security and other relevant parameters. In the framework of an appropriate, demanding task students learn to see their respective fields from an economic and social perspective and experience the manifold conditions and factors which influence working life.

¹ Pursuant to the decision of the D-BSSE Department Conference of 19.09.2017, based upon the pertaining articles in the programme regulations of the two degree programmes. Approved by the Rector on 04.10.2017.

² Version with changes pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020. Approved by the Rector on 20.07.2021.

³ Re-naming of the category in the Programme Regulations 2021 (RSETHZ 324.1.0600.12). In the Programme Regulations 2017 (RSETHZ 324.1.0600.11) the category is renamed as follows: "Research Project and Industry Internship".

Art. 3 Internship procedure

¹ The industry internship is generally undertaken in a medical, bioinformatics, biotechnical and/or pharmaceutical firm (internship provider) in Switzerland or abroad (this includes hospitals). In well-grounded cases the Director of Studies may, on request, approve other internship providers.

² Students seek out their own internship providers. They may refer to the mentor, the department study programme coordinator or further persons/organisations for advice and help.

Art. 4 Duration and timing

¹ The industry internship in the Master's degree programme in Biotechnology lasts at least 12 weeks (full-time); if it is completed part-time, the duration is extended accordingly. With the agreement of the internship provider the internship may be interrupted once, but as far as possible it should be completed in one stretch.

² The industry internship in the Master's degree programme in Computational Biology and Bioinformatics lasts at least 6 weeks⁴. It must be completed in one stretch.

³ If a student breaks off an internship to change firms, the time spent on the first internship is not recognised.

⁴ In the Master's degree programme in Biotechnology the industry internship may also be completed before the student begins Master's degree studies.

⁵ The industry internship is usually completed after the second semester.⁵ must be completed before the student begins the Master's thesis (prerequisite for admission to begin the Master's thesis).

Art. 5 Components of the industry internship

The industry internship involves the following:

- a. Sojourn in the firm: Work in an industrial firm for at least a 6- or 12-week period. The work schedule is stipulated by the internship provider. Before beginning the internship the students must inform themselves as to any confidentiality agreements (company secrecy).⁶
- b. Activity report: Students need to submit a meaningful report (10 pages) that includes information on the company (e.g. industry, size, products, organisation, competitors), departments visited, activities performed as well as acquired skills and competencies. The report must provide sufficient information on the research performed and the results obtained that the supervising professor can assess the

⁴ Minimum duration pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020. In effect since Autumn Semester 2021. This change is applied throughout the document.

⁵ Version pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020, in effect since Autumn Semester 2021.

⁶ Version pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020, in effect since Autumn Semester 2021.

internship. To protect company secrets, a confidentiality agreement may be signed.⁷ The report must be signed by a responsible person of the host company.

c. Confirmation of internship from the internship provider.

Art. 6 Content of the industry internship

During the internship students deploy their diverse knowledge and skills (e.g. practical and theoretical skills in the areas of biotechnology, bioinformatics and computational biology in the broad sense) in their workday and in doing so become familiar with the potential and limits of implementation in practice. Pure marketing or purchasing internships are not recognised. Examples of internship activities might be (selection):

- Strain or assay development
- Other areas of company research and development
- Design of biotechnical machines and apparatus
- Collaboration in production processes (up- and downstream)
- Development of GMP-compliant processes
- Ecological investigation of products and processes
- Statistical evaluation of biological and medical data
- Implementation of a bioinformatics pipeline for processing biological data
- Modelling of biological processes

Art. 7 Requirements for the internship provider and for the student

¹ The internship provider integrates the student into its day-to-day operations and organises competent supervision. The tasks assigned to the student during the internship must lie in an area of the biotechnical, bioinformatic, medical and/or pharmaceutical industries in the broad sense, and must be oriented towards practice and problem-solving. At the end of the internship the internship provider issues an internship confirmation which, among other things, lists the individual skills learned.

² Students learn and acquire the disciplinary skills required of them. After completing the industry internship they submit an activity report (see Art. 5 (b)) and the internship confirmation issued by the internship provider (see Art. 5 (c)) to the supervising professor.⁸

³ During the internship students are subject to the company regulations of the internship provider and any special provisions for interns. If performance is insufficient, after issuing a warning the internship provider may dismiss students early or break off the internship.

⁷ Version pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020, in effect since Autumn Semester 2021.

⁸ Version pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020, in effect since Autumn Semester 2021.

Art. 8 Recognition, allocation of credits

¹ After the internship confirmation and the activity report have been submitted, the supervising professor decides whether the industry internship, conducted either in Switzerland or abroad, will be recognised and therefore whether credits will be issued for it or not. The director of studies may revise the decision if there are cogent grounds for doing so.⁹

² An internship concluded before Master's degree studies begin can be recognised provided that this internship shows a clear link with the content of the degree programme and that it and the associated credits have not already been recognised towards a degree.¹⁰ If these criteria apply, the students in question must submit a request to the mentor for the internship's recognition as an Industry Internship. The Director of Studies may revise the decision if there are good reasons for this. There is no automatic entitlement to recognition.

³ A failed industry internship may be repeated once.

Art. 9 Special cases

The Director of Studies rules on cases which are not or are not sufficiently addressed by these Internship Regulations or other relevant ordinances or directives.

Art. 10 Entry into force

These Internship Regulations enter into force at the beginning of Autumn Semester 2017.

⁹ Version pursuant to the Departmental Conference of D-BSSE resolution of 15.09.2020, in effect since Autumn Semester 2021.

¹⁰ In alignment with the stipulations of the Master's degree programme in Biotechnology, Programme Regulations 2021 (Art. 31 Para. 6 Letter b), in effect since Autumn Semester 2021.