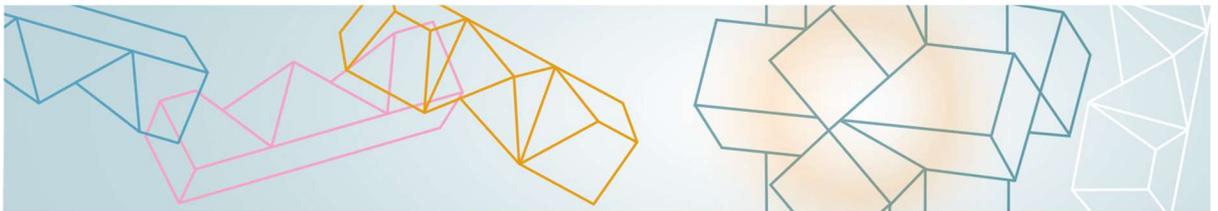




Guidelines for the specialized Minor in BioMed Entrepreneurship

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Table of contents

1 General	3
1.1 Relevant regulation documents	3
1.2 Overview of the training offers	3
1.3 How is the Minor structured? What are the modules?	3
1.4 How do I register for the Minor? Can I deregister?	4
1.5 Which certificates of achievement do I have to provide in the modules?	4
1.6 How do I find out the results of the assessments?	4
1.7 What if I miss or fail an assessment?	4
1.8 How does the ECTS credit system work?	5
1.9 How many ECTS credits do I have to acquire and what is my time frame for this?	5
1.10 How do I find out my ECTS credit status?	5
2 Specialized Minor in BioMed Entrepreneurship	5
2.1 Qualification goals	5
2.2 Requirements for admission	6
2.3 Structure	6
2.4 Internship	7
2.5 Overview of the modules (30 ECTS credits)	7
2.6 Completion	7
3 Modules of the Minor in BioMed Entrepreneurship	7
3.1 BEP 101: Pitch lectures and training	7
3.2 BEP 102: Block course 1: BioMed Entrepreneurship – From team to company	8
3.3 BEP 103: Block course 2: Corporate management of BioMed ventures	8
3.4 BEP 104: Block course 3: Legal requirements for BioMed ventures	9
3.5 BEP 105: Internship in a BioTech, MedTech or pharmaceutical company	9
4 Varia	10
4.1 Enrollment	10
4.2 Semester dates	10

1 General

This guide to the Minor in BioMed Entrepreneurship at the University of Zurich (UZH) is intended as a summary of the program rules and regulations. The general principles for Bachelor's and Master's degree programs at the Faculty of Science (MNF) of the UZH are set down in the Framework ordinance governing study in the Bachelor's and Master's degree programs offered by the University of Zurich's Faculty of Science of June 29th 2015.
<https://www.mnf.uzh.ch/en/studium/reglemente.html>

1.1 Relevant regulation documents

- The framework regulates the general conditions for the Bachelor's and Master's degree programs in the MNF at UZH. Among other things, it contains the generally binding criteria for the awarding of degrees.
- The study regulations for the Bachelor's and Master's degree programs in the MNF of UZH contain the requirements for the individual degree programs as well as the modalities of examinations and performance records.
- The rules on obtaining a doctoral degree govern the general conditions for a doctorate in the MNF of UZH.

The regulations and these guidelines are valid for a long period of time. Current information as well as detailed information on the individual courses in BioMed Entrepreneurship can be found in the course catalog and on the webpage (www.bep.uzh.ch).

1.2 Overview of the training offers

The Bachelor's degree program with a Major can be studied for 180, 150 or 120 ECTS credits. The last two variants are supplemented with a Minor worth 30 or 60 ECTS credits. Instead of a 60 credit program, two 30 credit Minors may be chosen. The 30 credit Minor in BioMed Entrepreneurship is not available as a Major option. A successful Master's degree can be followed by a PhD program with an independently conducted doctoral thesis.

Programs of study are located on the MNF's website at <https://www.mnf.uzh.ch/en/studium/master.html>.

1.3 How is the Minor structured? What are the modules?

The Minor in BioMed Entrepreneurship is divided into modules. Each module is listed separately in the course catalog. All modules are compulsory. ECTS credits are awarded for each module that is fully completed and successfully passed. The degree of the Minor is only awarded if all modules have been successfully attended and passed.

1.4 How do I register for the Minor? Can I deregister?

For this Minor, an application to the program management is required via the application form. In addition, the Bachelor's degree certificate (Academic Record) and the Transcript of Records of the current Master's program should be submitted. A limited number of students will be selected from applications received by the deadline. All application information and deadlines can be found at www.bep.uzh.ch. Applicants will be notified of acceptance by email from the program management. Once accepted, you can enroll for the Minor via semester enrollment (Master's program 120 ECTS credits with your Major program at 90 ECTS credits and the Minor program in BioMed Entrepreneurship at 30 ECTS credits). After enrollment, the modules are bindingly booked for you and you are obliged to complete the associated credits. Withdrawal after successful admission to the program are only possible with the submission of a medical certificate to the Office of Student Affairs and the program management.

Please note: The four modules must be completed in the fall semester and the internship in the following spring. All modules have to be completed within one year.

1.5 Which certificates of achievement do I have to provide in the modules?

Each module is completed separately with assessments. In the lectures, the focus is on presentations (pitches). The block courses focus on teamwork with a module exam at the end of each block course. The module exams usually take place on the last course day of the respective module. Date, time and place of the exams are published online in the course tool and announced in the modules.

1.6 How do I find out the results of the assessments?

You can view the results in your personal account <http://www.students.uzh.ch/record.html>.

1.7 What if I miss or fail an assessment?

If no medical certificate is available, a failure to appear at an assessment will be assessed as a fail. If you are ill on the day of the assessment, you must give notice of your situation by e-mail before the assessment with the relevant reason and submit a doctor's certificate within five working days. If you were sick on an initial exam date, the exam must be taken on the retake date.

Failed module exams may be repeated once for each module. If a compulsory module is not passed after the permitted retake, the Minor is failed and cannot be continued. Repetition examinations for each module are held once a year (approximately the end of January). The date, time and place of the repetition exams are published in the course tool and announced in the modules.

The Minor is only considered passed if all individual modules have been successfully completed.

1.8 How does the ECTS credit system work?

All degree programs are evaluated according to the principle of the European Credit Transfer System (ECTS). One ECTS credit corresponds to an average student workload of 30 hours. This includes the attendance time during a course as well as the time required for self-study and learning in student work groups. ECTS credits are only awarded on the basis of successful completion of a course.

1.9 How many ECTS credits do I have to acquire and what is my time frame for this?

The Minor in BioMed Entrepreneurship is worth 30 ECTS credits, which are acquired by attending the mandatory modules. If all individual modules are passed, the Minor is considered completed and passed.

The Minor in BioMed Entrepreneurship includes four modules in the fall semester and one module (internship) in the following spring.

1.10 How do I find out my ECTS credit status?

Students receive a list of the ECTS credits they have earned and the grades they have achieved once per semester. They are obliged to report any discrepancies to the Office of Student Affairs within 30 days. After this period, the listed data is considered accepted. The ECTS credits status can also be viewed on an ongoing basis at www.students.uzh.ch/record.html.

2 Specialized Minor in BioMed Entrepreneurship

2.1 Qualification goals

The Minor in BioMed Entrepreneurship (30 ECTS credits) provides a well-founded, problem-oriented training in the translation of scientific knowledge in the fields of BioTech, MedTech and Pharma. In addition, candidates will acquire the competence to tackle translational questions with suitable scientific instruments and to develop promising solutions. The Minor demonstrates approaches and methods for translating scientific results in the field of life sciences into marketable offerings for patients. The internship in a life sciences company, as an interface between university and entrepreneurial practice, offers insights into the professional world and can also open up new potential opportunities after graduation.

The Minor BioMed Entrepreneurship focuses on overarching questions of translational research and does not include other purely life science subjects, as these are covered in the Major.

Graduates of a Minor in BioMed Entrepreneurship are able to:

- recognize and formulize company-relevant questions for the translation of scientific knowledge;

- acquire in-depth specialist knowledge through independent work;
- apply methods of interdisciplinary collaboration and understand the value of interdisciplinarity;
- analyze theories and case studies to critically evaluate their results and incorporate them into concrete projects;
- understand the various dimensions of entrepreneurial implementation and their significance in specialist and operational contexts;
- communicate knowledge and complex interrelationships in a way that is appropriate for a range of different stakeholders.

2.2 Requirements for admission

- Admission is by application, the number of places per year is limited (see point 1.4). Fully submitted application documents are a prerequisite for admission. You can find the application form and the deadlines at www.bep.uzh.ch.
- Students who have completed a Bachelor of Science degree in a scientific or medical field of study from UZH or the ETH Zurich with at least 120 ECTS credits in life sciences (biology, biochemistry, biomedicine, chemistry, business chemistry, medicine, pharmaceutical sciences, physics) are eligible.
- Students with a Bachelor's degree from another university can apply if they are enrolled in a Master's program in the Faculty of Science.
- Classes are taught in English. Students must be able to demonstrate sufficient knowledge of English at least level C1 according to the scaling of the Common European Framework of Reference (CEFR), unless English is their first language, or they have already completed the BSc in English. Recognized English diplomas can be found on the following page:
<https://www.uzh.ch/cmsssl/en/studies/application/language requirements.html>
- This Minor is particularly suitable for Master's students in their final year of study, i.e., the compulsory modules of the Major program and the Master's thesis should ideally be completed before the start of the Minor. If the Major program requires a Learning Agreement, it must be included with the application.
- If more applications are received than places are available, further criteria apply. These will include the overall grade of the Bachelor's degree or of an equivalent degree, proof of motivation and quality of the application, and additional qualifications relevant to the field of study.
- The Minor can only be started in the fall semester. It can only be completed if all modules are taken consecutively in the same semester and the internship is taken during the following spring.

2.3 Structure

The curriculum of the Minor in BioMed Entrepreneurship (30 ECTS credits) consists of five compulsory modules: a lecture and three block courses, which take place in the fall semester, as well as an internship. All modules have to be completed within one year.

2.4 Internship

The compulsory 10-week internship (10 ECTS credits) offers insights into the professional world as an interface between university and practice and can open up further potential professional opportunities. It has to be completed after the end of the modules of the fall semester in the following spring. The assessment is based on written weekly progress reports according to a report template, a final report and a presentation, in which the knowledge learned in the modules is applied.

2.5 Overview of the modules (30 ECTS credits)

These modules can only be taken by students of the Minor in BioMed Entrepreneurship program. They are not available for students of other programs, mobility students and auditors.

Sem.	Module	ECTS	Type	Time	Performance record
1 (HS)	BEP 101 Pitch lectures & trainings	2	VL	Mo 3-5 pm	PP
1 (HS)	BEP 102 BioMed Entrepreneurship: From team to company	6	BL	Block course	PP, MP
1 (HS)	BEP 103 Corporate management of BioMed ventures	6	BL	Block course	PP, MP
1 (HS)	BEP 104 Legal requirements for BioMed ventures	6	BL	Block course	PP, MP
2 (FS)	BEP 105 Internship in a BioTech, MedTech or pharmaceutical compan	10	PR	10 weeks *	SA, PP

*) start after agreement

HS: Fall semester

FS: Spring semester

VL: Lecture

BL: Block course

PR: Internship

PP: Presentation, poster

MP: Exam at the end of the module

SA: Paper

2.6 Completion

The Minor is successfully completed when all five modules have been assessed as having a sufficient grade, or as passed and the findings of the internship have been presented.

3 Modules of the Minor in BioMed Entrepreneurship

3.1 BEP 101: Pitch lectures and training

Learning objectives:

The student will be able to:

1. distinguish between idea, innovation, and marketable product.
2. identify needs and opportunities with innovation potential.
3. compare different entrepreneurial approaches in BioTech, MedTech and Pharma.
4. understand her/his audience, analyze their requirements, and adapt his/her presentation to the audience for most effective outcome.

Content:

One of the most important tasks and skills for entrepreneurs is to convince an audience of a business idea in a short but comprehensive pitch. This module teaches and trains with students all the tools they need to make the most effective and efficient pitch. Students learn how to identify a potentially successful idea and develop various entrepreneurial approaches

to turn an idea into a product or service. In addition, students identify different target audiences for a business and research stakeholder needs. This knowledge is applied to projects and practiced in hands-on exercises that are recorded and discussed.

3.2 BEP 102: Block course 1: BioMed Entrepreneurship – From team to company

Learning objectives:

The student will be able to:

1. know about the importance of teamwork in entrepreneurship and reflect on his/her own behavior;
2. describe the basic requirements in finance and legal for a venture and can apply those in a case study;
3. use a project management process for different requirements;
4. apply the gained knowledge in a milestone planning for a concrete market introduction.

Content:

This module provides an introduction to entrepreneurship in the BioTech, MedTech and Pharmaceutical industries. Students learn how to translate an idea or scientific discovery into a commercially viable product or service. This includes market insights, design thinking, project management, and finance and legal basics. The knowledge is imparted via e-learning tools and lectures held by guest lecturers from a venture (start-ups, specialists from various fields), amongst others.

3.3 BEP 103: Block course 2: Corporate management of BioMed ventures

Learning objectives:

The student will be able to:

1. describe and differentiate theories of finance models for a venture.
2. analyze balance sheets, business reports, and earning statements.
3. know the difference of vision, mission and strategy and can define them for her/his project.
4. understand conflicts and their different stages that can arise in a company and can develop solution approaches.
5. illustrate the requirements of leadership.

Content:

This module focuses on the financial aspects of a company, marketing, clinical trials. The knowledge is imparted via e-learning tools and lectures held by guest lecturers from a venture (start-ups, specialists from various fields), amongst others. In addition, students will enhance their teamwork skills by addressing conflict management and leadership requirements.

3.4 BEP 104: Block course 3: Legal requirements for BioMed ventures

Learning objectives:

The student will be able to:

1. acquire relevant knowledge of intellectual property, e.g. patents, brands and trademarks.
2. select and explain topics related to life science regulations, e.g., Swissmedic or Food and Drug Administration (FDA) requirements.
3. understand business rights and responsibilities, as well as labor and employment law.
4. be aware of the importance of data protection and data security and act accordingly.
5. classify and evaluate international papers and practical examples.

Content:

This module focuses on the legal requirements for a BioTech and MedTech company and covers topics such as intellectual property (IP), regulatory affairs, and the various legal aspects of a business. Business law and labor and employment law are taught and the importance of proper data handling is discussed. Soft skills are strengthened through negotiation training. The knowledge is imparted via e-learning tools and lectures held by guest lecturers from a venture (start-ups, specialists from various fields), amongst others.

3.5 BEP 105: Internship in a BioTech, MedTech or pharmaceutical company

Learning objectives:

The student will be able to:

1. apply the acquired knowledge to projects in a selected BioTech or MedTech company and explain product development, production and quality control.
2. discuss the organizational structure of the company and develop potential improvements.
3. explain the company's value chain.
4. reflect on his/her tasks and can connect theoretical knowledge to practical work, thereby improving hard and soft skills.

Content:

The student will carry out a 10-week full-time internship project in a BioTech, MedTech or pharmaceutical company, where he/she can analyze a real case and apply his/her acquired knowledge. This opportunity offers the student the first direct contact with the business world and could open doors for future potential employment opportunities. Achievements are reflected upon and documented in a weekly statement. In a final report, the student discusses the project, and the findings are presented to the committee. The internship is managed by a supervisor from the company and a member of the organizing institute (IREM).

4 Varia

4.1 Enrollment

All students must be enrolled for as long as they are using UZH services. These include, in particular, attending classes, completing internships, receiving advice and counseling, using libraries and collections, using the Center for Information Technology Services, and taking exams.

4.2 Semester dates

<http://www.uzh.ch/studies/dates.html>