

Please read the following information carefully!<sup>1</sup>

### *General information*

- The legally binding regulations on the Master's Program "Biomedical Engineering" can be found here: «[Legal basis](#)»
- Exams will take place in the weeks after the end of the lectures. For exam periods see [https://www.bme.master.unibe.ch/studies/academic\\_calendar/index\\_eng.html](https://www.bme.master.unibe.ch/studies/academic_calendar/index_eng.html).
- In exceptional cases, exams may be scheduled any time during course periods.
- Exams in some courses which are not organized by the Study Coordination Office could take place any time during the academic year. For a list of these courses see Appendix D.
- The lecturer will inform the students on the type of exam (e.g., written, oral, etc.), on exam languages and what kinds of material can and cannot be used during the exam. Smart electronic tools like smartphones and programmable calculators are strictly forbidden during an exam, unless explicitly allowed by the responsible lecturer. Non-compliance to these rules will be regarded as fraud. Consequently, students concerned will receive grade 1 (fail).
- In all cases of fraud, an official warning will be issued by the Dean's Office. In cases of repeated or severe fraud, exclusion from the study program Biomedical Engineering will most likely be the consequence.
- Students must bring along valid identification (UNICARD, ID card, or passport) to the exams.
- Make sure that you arrive in time and at the right location – exams quite frequently do not take place at the same location as the course did. Possible course locations are Bern or Biel. Do not risk receiving grade 1 by just not being present at the exam.
- Check your student mailbox daily, especially during exam periods.

### *Exam regulations*

#### **Registration and cancellations**

- Students may decide freely if they want to register for an exam. Course registration is no obligation for exam registration. It is also possible to participate in the exams following the course periods in subsequent years (in most cases, one or two years later). Please note that in this case, the topics discussed in class may change to a certain degree from one year to the next. It is the student's responsibility to keep herself/himself informed.
- Registration and de-registration periods set in KSL have to be strictly observed. Please note that the registration periods may vary for different exams.

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<sup>1</sup> Note that this document is for your information only. Legally binding are the German-language documents Reglement and Studienplan (see «[Legal basis](#)»)

- Late exam registrations will not be accepted. Please make sure to keep the registration confirmation email generated by KSL after successful exam registration.
- It is possible to withdraw from the exam registration until 14 days before the exam without consequences.
- If you withdraw later, please inform the Study Coordination Office as well as the lecturer as quickly as possible by email or telephone. If you have an important reason (e.g., sickness or military service, other reasons are possible), please submit a certificate (e.g., medical certificate). Without proof of an important reason, you will receive the grade 1 (fail).
- Please note that in courses which are not organized by the Master's Program Biomedical Engineering, different regulations may apply.

### **Admission to exams**

- For most courses, two equivalent final exams per year will take place during the exam periods of spring and fall semesters, respectively. Students may decide freely in which of these exams they want to participate. All courses for which this rule applies are listed in Appendix A.
- Exceptions from this rule are listed in Appendix B. In these courses, only students who failed an exam or had to withdraw due to an important reason are entitled to participate in the repeat exam.
- Most courses listed in Appendix C are either practical courses or courses where grading is done during the semester. As these courses only take place once a year, no regular second exam can be offered. If a student has to withdraw his/her exam registration due to an important reason, the lecturer will decide in accordance with the students concerned if participation in a repeat exam is possible.

### *Inspection of exam records*

Students are allowed to inspect their exam papers within 30 days after the exam results have been published. Please contact the lecturer within this period if you want to review your exam.

### *Maximum number of exam repetitions*

#### **General rule**

In general, every exam may be repeated only once. However, a single exam during studies can be repeated a second time. Please note that this general rule has different implications for mandatory courses (Basic Modules as well as the mandatory part of the module "Complementary Skills") and major modules and elective courses as outlined in the following paragraphs.

### **Basic modules, mandatory courses in “Complementary Skills” and extracurricular mandatory courses**

If a student fails an exam in the basic modules or in the mandatory part of the module “Complementary Skills” twice, he or she has to participate in the first exam which is offered after the second failure. If the student misses this exam, he or she will be excluded from the master’s program unless the third exam had to be postponed due to an important reason (e.g., sickness - see “registration and cancellations”).

Some students have been imposed additional or alternative requirements (extracurricular mandatory courses) which they have to fulfill before graduation. The same rules apply for these courses.

### **Mandatory courses in major modules**

In case a student fails a mandatory course in the major module twice, he or she may postpone the third exam until all basic modules have been completed. If a second repetition is not possible or resulted in a fail grade, the student must change the selected major module or resign from the study program.

### **Elective courses**

If the maximum number of exam repetitions in an elective course is exceeded, another elective course may be selected instead. To repeat an exam in an elective course a second time is only advisable when all mandatory courses have been completed.

### **Master’s thesis**

Please note that for the master’s thesis, only one repetition is permitted. This applies both for the master’s thesis document and for the thesis presentation and defense.

### ***Exclusion from the Master’s Program***

The most common reasons for exclusion from the master’s program are:

- The student failed two or more exams in the basic modules or the mandatory part of the module “complementary skills” twice.
- The student failed one of these exams a third time.
- The maximum number of exam repetitions in mandatory courses from all major modules has been exceeded.

## Appendix A

For the following courses, students may decide freely if they want to participate in the exam which takes place immediately after the semester or in the second exam which takes place after the following semester.

- *First Semester Courses*
  - Basics in Physiology for Biomedical Engineering (3 ECTS)
  - Biological Principles of Human Medicine (3 ECTS)
  - Biomedical Instrumentation (5 ECTS)
  - Introduction to Digital Signal Processing
  - Introduction to Electrical Engineering (2 ECTS)
  - Introduction to Engineering Mechanics (2 ECTS)
  - Introduction to Biomechanics (3 ECTS)
  - Introduction to Material Science (2 ECTS)
  - Introduction to Programming (2 ECTS)
  - Introductory Anatomy and Histology for Biomedical Engineers (3 ECTS)
  - Medical Informatics (3 ECTS)
  - Numerical Methods (5 ECTS)
  - Principles of Medical Imaging (3 ECTS)
  - Selected Chapters in Mathematics (2 ECTS)
  
- *Third Semester Courses*
  - Biomedical Acoustics (3 ECTS)
  - BioMicrofluidics (2 ECTS)
  - Cardiovascular Technology (3 ECTS)
  - Design of Biomechanical Systems (3 ECTS)
  - Innovation Management (2 ECTS)
  - Intelligent Implants and Surgical Instruments (3 ECTS)
  - Medical Image Analysis (5 ECTS)
  - Ophthalmic Technologies (3 ECTS)
  - Osteology (3 ECTS)
  - Rehabilitation Technology II (3 ECTS)
  - Tissue Biomechanics (3 ECTS)
  - Tissue Engineering (3 ECTS)
  
- *Second Semester Courses*
  - Biomaterials (5 ECTS)
  - Biomedical Sensors (3 ECTS)
  - Biomedical Signal Processing and Analysis (3 ECTS)
  - C++ Programming I (3 ECTS)
  - Clinical Epidemiology and Health Technology Assessment (2 ECTS)
  - Computer-Assisted Surgery (3 ECTS)
  - Continuum Mechanics (3 ECTS)
  - Finite Element Analysis I (3 ECTS)
  - Fluid Mechanics (4 ECTS)
  - Introduction to Medical Statistics (3 ECTS)
  - Introduction to Signal and Image Processing (5 ECTS)
  - Low Power Microelectronics (4 ECTS)
  - Medical Robotics (3 ECTS)
  - Microsystems Engineering (3 ECTS)
  - Fundamentals of Quality Management and Regulatory Affairs(4 ECTS)  
(Exam takes place during the last lecture)
  - Regenerative Dentistry for Biomedical Engineering (2 ECTS)
  - Rehabilitation Technology I (3 ECTS)
  - Wireless Communication for Medical Devices (3 ECTS)

## Appendix B

For the following courses, only students who failed an exam or had to withdraw due to an important reason are entitled to participate in the repeat exam:

- *Third Semester Courses*
  - Applied Biomaterials (3 ECTS)
  - Applied Optimisation (5 ECTS)
  - Biomedical Laser Applications (4 ECTS)
  - Computer Graphics (5 ECTS, German)
  - Computer Vision (5 ECTS)
  - Ethics in Biomedical Engineering (2 ECTS)
  - Functional Anatomy of the Locomotor Apparatus (3 ECTS)
  - Machine Learning (5 ECTS)
- *Fourth Semester Course*
  - Advanced Topics in Machine Learning (5 ECTS)

## Appendix C

The following courses are either practical courses or courses which are continuously evaluated. If a student has to withdraw his/her exam registration due to an important reason, the lecturer will decide in accordance with the student concerned if participation in a repeat exam is possible.

- *First Semester Course*
  - Short Introduction to MATLAB (1 ECTS)
- *Second Semester Courses*
  - Dynamical Models: Analysis, Conception and Simulation (3 ECTS)
  - Image-Guided Therapy Project (2 ECTS)
  - Introduction to Digital Logic (3 ECTS)
- *Third Semester Courses*
  - C++ Programming II (3 ECTS)
  - Finite Element Analysis II (3 ECTS)
  - Lecture Series on Advanced Microscopy\* (3 ECTS)
  - Medical Image Analysis Lab (4 ECTS)
  - Orthopaedic Surgery – Practical Course (2 ECTS)
  - Programming of Microcontrollers (5 ECTS)
  - Scientific Writing in Biomedical Engineering (2 ECTS)
  - Technology and Diabetes Management (3 ECTS)
  - Tissue Biomechanics Lab (2 ECTS)
  - Tissue Engineering - Practical Course (2 ECTS)

\*This course is externally organized which is why only one exam after the course period can be granted. A repeat exam might or might not be scheduled.

## Appendix D

The following courses are not organized by the Study Coordination Office but by other institutions. This is why the exam periods announced on our homepage may not apply.

- Advanced Topics in Machine Learning (5 ECTS)
- Applied Optimisation (5 ECTS)
- Biomedical Laser Applications (4 ECTS)
- Computer Graphics (5 ECTS, German)
- Computer Vision (5 ECTS)
- Lecture Series on Advanced Microscopy (3 ECTS)
- Introduction to Artificial Intelligence
- Machine Learning (5 ECTS)