

**Special examination regulations of the Medical Faculty of Kiel University for students of the Master's programme Medical Life Sciences¹
of 16 February 2012**

Date of publication: 2.3.2012 (NBl. MWV. Schleswig-Holstein, page 9), modified by rule of 7.2.2013, date of publication: 1.3.2013 (NBl. HS. MBW. Schleswig-Holstein, page 27), modified by rule of 13.6.2013, date of publication: 16.7.2013 (NBl. HS. MBW. Schleswig-Holstein, page 54), modified by rule of 10.7.2014, date of publication: 25.9.2014 (NBl. HS MSB Schleswig-Holstein, page 56), modified by rule of 5.2.2015, date of publication: 26.2.2015 (NBl. HS MSGWG Schleswig-Holstein, page 85), modified by rule of 4.2.2016, date of publication: 25.3.2016 (NBl. HS MSGWG Schleswig-Holstein, page 8), modified by rule of 23.5.2017, date of publication: 13.7.2017 (NBl. HS MSGJFS Schleswig-Holstein, page 51), modified by rule of 10.1.2018, date of publication: 15.2.2018 (NBl. HS MBWK Schleswig-Holstein, page 3), modified by rule of 21.11.2018, date of publication: 21.12.2018 (NBl. HS MBWK Schleswig-Holstein, page 77)

According to §52 section 1 sentence 1 of the Universities and Colleges Act of Schleswig-Holstein (HSG) in its version dated 28 February 2007 (GVOBl Schl.-H. 2007, p. 184), the following regulations have been passed by the Convention of the Medical Faculty (Konvent der Medizinischen Fakultät) and issued on 5 December 2011 and 23 January 2012:

Table of contents:

- §1 Area of application
- §2 Aim of programme
- §3 Academic degree
- §4 Admission to Master's programme
- §5 Crediting academic achievements acquired in other programmes
- §6 Programme structure
- §7 Study year
- §8 Admission restrictions for compulsory and elective-compulsory courses
- §9 Language of instruction and examination
- §10 Examination board and programme committee
- §11 Module examinations and grades
- §12 Further conditions for examination admission
- §13 Repeat module examinations
- §14 Master's thesis
- §15 Formation of overall grade
- §16 Entry into force

¹ This English version of „Fachprüfungsordnung des Masterstudiengangs Medical Life Sciences“ is not a legally binding document. Its only aim is to be a source of information for students whose native language is not German.

§1 Area of application

- (1) In conjunction with the general examination regulations for students of Bachelor's and Master's programmes of Kiel University (Prüfungsverfahrensordnung), the special examination regulations rule the course of study in Medical Life Sciences (MSc) at Kiel University.
- (2) Admission and examination procedures for imported modules are subject to the regulations of the programme offering the respective modules.

§2 Study aim

The aim of the Medical Life Sciences Master's programme is to convey thorough, specific knowledge, skills and competencies in molecular biomedicine. It also aims to enable students to design and carry out biomedical research projects independently. Graduates shall be endowed with the ability to approach new research topics in their respective chosen focus area as well as to acquire knowledge and to apply it to their research approaches self-reliantly and critically. It is part of the overall aim of the programme to enable students to explain and present their research to laymen and fellow scientists in an adequate manner. The Master's degree enables students to critically assess their own research work and results as well as scientific publications and the results described there. It also qualifies students for entering PhD studies.

§3 Academic degree

Having passed the Master's programme with an overall grade of at least "sufficient" (ausreichend), the student is awarded the degree "Master of Science" (MSc).

§4 Admission to the Master's programme

The following requirements for admission to the Master's programme have to be met:

- (1) The applicant has to have successfully concluded
- a. a Bachelor's programme of at least 3 years with 180 credit points in Germany or at an officially recognised foreign university in a life sciences discipline or has to have earned an equivalent degree or
 - b. a Bachelor's programme of at least 3 years with 180 credit points in Germany or at an officially recognised foreign university in a related natural-sciences discipline² or has to have earned an equivalent degree or
 - c. a medicine or dentistry programme by passing the second state exam (Zweiter Abschnitt der Ärztlichen Prüfung) at a university in Germany or has to have earned an equivalent medicine or dentistry degree³ at an officially recognised foreign university.
 - d. at least the first six semesters of a medicine or dentistry programme fulfilling the requirements mentioned below:
 - The applicant has successfully passed all exams of "Erster Abschnitt der Ärztlichen Prüfung in medicine or dentistry after the fourth semester of the respective programme with the overall grade "good" ("gut") as a minimum at a German university or has successfully sat exams outside Germany that are recognized as equivalent to "Erster Abschnitt der Ärztlichen Prüfung" after the fourth semester of the programme with the overall grade "good" ("gut") as a minimum.
 - The applicant has attended and passed all curricular courses of the fifth and sixth semester of the

² The Medical Life Sciences programme committee decides on a case-by-case basis whether the concluded Bachelor's programme is a suitable basis for taking up Medical Life Sciences Master studies.

³ If equivalence of the foreign degree is not obvious, the Medical Life Sciences programme committee will decide if the degree in question can be recognized as equivalent on a case-by-case basis.

medicine/dentistry programmes at Kiel University and achieved at least the grade “good” (“gut”) in each of the courses Human Genetics, Methodology of Scientific Research (“Methoden des wissenschaftlichen Arbeitens”), Pathology, Pharmacology and Toxicology.

The Medical Life Sciences examination board evaluates if the requirements described above are met. If those conditions are not fulfilled, the applicant cannot be considered for the assessment procedure described in (3). If the above-mentioned requirements are met and the applicant successfully passes the assessment, they may start the Master's programme Medical Life Sciences in parallel to their medicine studies. In this case, the Master's degree can only be awarded if the examinations of “Zweiter Abschnitt der Ärztlichen Prüfung” have been passed before the Master's programme is concluded.

(2) The applicant has to have

- a. knowledge of biology acquired through his first academic degree (erster berufsqualifizierender Hochschulabschluss) that is equivalent to the level of a Bachelor's degree in a life sciences discipline,
- b. basic skills to execute laboratory work that correspond to the level of a first academic degree in a life sciences discipline and
- c. acquired knowledge in vertebrate/human physiology that is equivalent to the level taught in Bachelor's life sciences programmes in scope and volume.

(3) The applicant has to have passed the ability assessment for Medical Life Sciences successfully. The assessment comprises the submission of a written application in English within the deadline issued by the Medical Life Sciences programme coordination. To submit an application, the student fills in the Medical Life Sciences application form and also hands in the required proof of previous study achievements, a CV and a motivation letter. Within the ability assessment, the existence of subject-related knowledge, foreign language skills and motivation letter are checked. After the evaluation of all applications, candidates that appear suitable are invited for an interview⁴ with members of the programme committee and/or the examination board to find out if the candidate's suitability is sufficient.

The entire programme committee decides on suitability of the applicants after the conclusion of the interviews; if members of the examination board took part in the interviews, they receive voting rights for the final decision meeting on the programme committee. A candidate must be found suitable by at least two thirds of all votes.

(4) Information on required foreign-language skills is laid down in the study qualification regulations (Studienqualifikationssatzung) of Kiel University.

§5 Crediting academic achievements acquired in other programmes

Academic achievements gained in medicine or dentistry by Medical Life Sciences students who have completed a medicine (2. Abschnitt d. Ärztl. Prüfung) or dentistry degree successfully will be credited as equivalents for modules which teach basic medical science (for students without medical training). Details and acknowledgement of academic achievements which have been acquired in other programmes are laid down in the statute on crediting study achievements (Anerkennungssatzung) of Kiel University.

§6 Programme structure

The standard study period for the Master's programme is four semesters. Its workload amounts to approximately 120 contact hours depending on the compulsory-elective modules chosen and to 120 credit points. The programme comprises

- 11 compulsory modules with 60 credit points,

⁴ Interviews with applicants whose native language is not German will partly be held in German as the interviewers see fit.

- one compulsory-elective module with 8 credit points,
- two focus-area modules with 22 credit points in total,
- the Master's thesis with 30 credit points.

§7 Academic year

The programme subject to these regulations follows the academic year. Courses for first semester students and students of uneven semesters will only be offered in summer terms. Enrolment for uneven semesters is only possible in summer terms, enrolment for even semesters is only possible in winter terms.

§8 Admission restriction for compulsory or elective-compulsory courses

- (1) All students of one year inform the programme coordinator of their first and second priority for a focus area as well as for the compulsory- elective module before a deadline set and announced in advance by the coordinator.
- (2) The number of available places for compulsory-elective courses for each study year is determined and announced by the module coordinator and the programme coordinator at the end of the first semester.
- a. If the number of students registering for compulsory-elective modules or their module components is greater than the number of places available, the module coordinators together with the programme coordinator check if the enrolment surplus can be dealt with by increasing the number of places.
 - b. Establishing a module that only is given as a second priority by the students will only be discussed if handling a surplus in one module is not possible in any other way.
 - c. If an elective-compulsory course has been chosen as first priority by too few students, no surplus votes as the second-priority choice have to be accommodated in this particular course, and no guest students want to attend it, the course may be cancelled. Normally, an elective-compulsory course will only be conducted if at least three students choose it.
 - d. An elective-compulsory course does not need to be offered if expert lecturers are not available to teach it for the period of time of one or several semester(s). Students need to be able to choose between at least two different elective-compulsory courses outside the focus areas and between at least three focus area courses.
- (3) Should it not be possible to accommodate the enrolment surplus in any other way, the programme coordinator and the module coordinators apply the following procedure for all students who are enrolled in Medical Life Sciences, have registered before the set deadline for the module/module component and have met the requirements for participation:
- a. Students studying in the semester for which the module is scheduled and students who have failed the course in the previous study year and have to take this module again according to these regulations have first rights. Here, 90% of available places go to the first group, 10% to the second. They receive a place in the module/module component of their first choice if enough places are available. Should the number of places not be sufficient to accommodate all students, students will receive places in the module/module component of their second choice. Lots are drawn among those who have given the same first and second priorities to decide who has to change to his/her second choice.
 - b. Students who have not yet met the requirements for entering the module before the set deadline for selecting the compulsory-elective module but still have to acquire the necessary proof (e.g. after failing a necessary exam in two tries) have second rights. Students will be assigned to focus area modules with free places should the areas chosen with first or second priority not take place or be full.
 - c. Students studying in a semester different from that for which the module is scheduled and who have registered for that module for the first time have third rights. Students who were enrolled in the respective

module in a previous semester and had to give up their place for cogent reasons according to §52, subparagraph 4 HSG, or for comparable reasons have third rights as well.

d. Students who registered for the respective module in previous semesters and gave up their space without proof of cogent reasons have fourth rights.

If rights are equal, the lower number of semesters decides; if semester numbers are equal, the decision on admission is reached by drawing lots. Cases of hardship are decided by the examination board.

(4) The following rules apply for admission to modules of the focus areas:

- a. The places available in modules of the focus areas are determined by the capacity of the receiving labs and the number of available case studies in the participating clinical units. The number of places available in each focus area for each academic year is announced by the examination office at the beginning of the academic year.
- b. Students choose their focus area at the end of the first semester. Admission requirements are listed in the appendix.
- c. The lecturers of the respective focus areas inform the students within the first semester courses about the modules before the students have to make their choices. Students provide two preferences for their focus area. They can be turned down by a focus area if its capacity is already exhausted. Students then have to select an area that has free places following the priority rules listed under (3) a-e.

§9 Language of instruction and examination

The language of tuition is English. All exams including the Master's thesis have to be performed in English.

§10 Examination board and programme committee

(1) The convention of the Medical Faculty elects the Medical Life Sciences examination board. The board's tasks and its composition are ruled by the general examination regulations of Kiel University.

(2) The Medical Life Sciences examination board appoints a programme committee (Studiengangskommission).

(3) The programme committee comprises at least 10 and at most 25 members of the faculty teaching Medical Life Sciences who are eligible to supervise Master's theses. The number of committee members depends on the size of the study group. The committee includes members of the Mathematics and Sciences Faculty (Mathematisch-Naturwissenschaftliche Fakultät), the Agricultural-Nutritional Sciences Faculty (Agrar- und Ernährungswissenschaftliche Fakultät) and the Medical Faculty (Medizinische Fakultät).

(4) The programme committee fulfills the following tasks:

- a. It carries out the ability assessment for admission to the programme and decides on admission.
- b. It conducts examinations which are deemed extremely important with respect to the future execution of the Master's thesis. Exams to which this applies are annotated accordingly in the appendix.
- c. It reviews topics suggested as thesis topics to ensure a common level of erudition and scientific relevance with regard to the respective focus area they relate to.

(3) The committee reports to the examination board. Cases in which a decision cannot be reached by the committee are brought forward to the examination board, whose decision is binding.

§11 Module examinations and grades

(1) The number and nature of the examinations are listed in the appendix.

(2) A written exam takes at least 30 minutes and at most 2 hours.

(3) If an examination comprises several exams, the overall grade is calculated by weighting each exam as laid down in the appendix.

§12 Further conditions for examination admission

- (1) Regular attendance is mandatory if a module contains excursions, practicals, practical tutorials or language classes for obtaining admission to examinations.
- (2) Regular attendance is mandatory for obtaining admission to exams if a module contains types of classes not mentioned above that require interactive student participation to gain basic methodology knowledge. This is valid for seminars and lab seminars of the focus areas and electives because they require discussions of scientific papers conducted jointly by all students and their lecturers. Apart from contributing actively to the seminars, working through the scientific articles, analyzing and interpreting them in class is as essential as discussing articles controversially among all participants. The main goal of the seminars is to train students how to conduct knowledge-based critical analyses of the presentation of research approaches and results to critically assess the validity of a specific work of research.
- (3) Attendance is considered as regular if no more than 14% of classes have been missed by the student. Cases of hardship are decided by the examination board.
- (4) Classes that demand regular attendance to be admitted to exams are marked in the appendix. For all other classes, regular attendance is not mandatory to be admitted to exams.

§13 Repeat examinations

In exceptional cases, written exams can be substituted by oral exams, in particular if a prompt exam repetition is not possible and waiting would lead to a disproportionate prolongation of study duration.

§14 Master's thesis

- (1) Students can be admitted to the Master's thesis if they have gained at least 79 credit points by passing exams in compulsory and elective-compulsory modules or if they have passed the exams which lead to their award. Further, students have to meet the admission requirements listed in the appendix. The credit points comprise the credit points awarded for all modules of the first three programme semesters excluding the module "Focus area II". For the focus area II module, the written project thesis has to be submitted and deemed "passed" by the reviewers before the student can register for the Master's thesis. Cases of hardship, in which a smaller number of credit points may be acceptable for admission to the Master's thesis, are decided by the examination board.
- (2) The Master's thesis can only be written on a topic of the focus area which the student has chosen for the second and third semesters and whose module exams he or she has passed. In the exceptional case that a student has changed focus areas, the examination board will check if the student has passed all mandatory modules of the focus area he or she has changed into and meets the admission requirements.
- (3) Suggested themes for Master's theses will be reviewed by the programme committee on behalf of the examination board to guarantee a workable distribution of theses per research lab. This serves to secure the practicability of the programme.
- (4) The Master's thesis has to be written in English.
- (5) The thesis topic has to be anchored in the student's chosen focus area. As a rule, the thesis is supervised by two supervisors who are members of the Medical Faculty of Kiel University. One of the two supervisors may belong to an external institution, though.
- (6) With the examination board's consent, the Master's thesis can be conducted at an institution outside Christian-Albrechts-Universität zu Kiel if the student can be supervised adequately for the chosen topic at this institution. The student can be supervised by members of the external institution if they are qualified according to the general examination regulations for Bachelor and Master programmes (Prüfungsverfahrensordnung). Unclear cases are decided by the examination board.

(7) The time period from assignment of thesis topic to submission of thesis is six months. The duration can be extended for half of the regular time period at most, i.e. 3 months.

(8) The topic of the Master's thesis can only be turned down once by the student and within six weeks after having been assigned.

(9) The Master's thesis has to be submitted to the examination office in two written copies and in a version suitable for electronic data processing.

§15 Overall grade

To calculate the overall grade, the grades of the compulsory modules, the compulsory-elective module, the focus area modules and the grade awarded for the Master's thesis are taken into account. The grades are weighted according to the allocated credit points. The focus area grade is calculated by taking the arithmetic mean of the respective module grades.

§16 Entry into force

These regulations enter into force on the day of their publication.

Permission according to Article 1 §52 section 1 sentence 1 in connection with Section 2 §1 subparagraph 4 of the Universities and Colleges Act of Schleswig-Holstein (HSG) was approved by the presidium of Christian-Albrechts-Universität zu Kiel in writing on 16 February 2012.

Kiel, 16 February 2012

Prof. Dr. Stefan Schreiber
Dean of Medicine
Christian-Albrechts-Universität zu Kiel

Article 2 of the amendment of the special examination regulations Medical Life Sciences issued on 21.11.2018:

These regulations enter into force on 1 April 2019.

Compulsory modules Medical Life Sciences

| MedCompact | | Basics of Medical Science and Terminology | | | | | | |
|---|----------------------------|---|-----------------------|---------------|---|--------------------------------------|---------------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 1st +2nd semester | 2 semesters | | | Comp. | | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP⁵ | Status | Type of examination | Evaluation | Weight | |
| Human biology for molecular disease research (1st semester) | Lecture with practical* | 4 | 3 | Comp. | Multi-part exam: Exam interview | not graded | | |
| Pharmacology (2nd semester) | Lecture | 3 | 3 | Comp. | Multi-part exam part 2: Written exam | | | |
| Examination admission requirements: study interview in Human Biology passed | | | | | | | | |
| IntroMed | | Clinical Manifestations of Diseases and Cell Biology for Clinical Research | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 1st semester | 1 semester | | | Comp. | | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Cell biology for clinical research | Lecture | 2 | 2 | Comp. | Multi-part exam part 1: Oral exam | graded | 50% | |
| | Seminar | 1 | 1 | Comp. | | | | |
| Basics of clinical manifestations of diseases | Lecture | 2 | 2 | Comp. | Multi-part exam part 2: Written exam | graded | 50% | |
| Medical examination course | Practical tutorial* | 1 | 1 | Comp. | | | | |
| MolBio | | Basics of Molecular Research | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload | | |
| 1st semester | 1 semester | | | Comp. | | 9/ 270 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Basics of molecular biology | Lecture | 3 | 2 | Comp. | Written exam | not graded | | |
| | Tutorial | 1 | 1 | Comp. | | | | |
| | Practical course* | 5 | 5 | Comp. | Interviews at start/end of lab sessions (combined exam) | | | |
| Introduction of research groups | Retreat | 2 | 1 | Comp. | | | | |

*Regular attendance mandatory for exam admission

| MolPatho/Immu | | Pathology + Immunology | | | | | | |
|---|----------------------------|--|-----------|---------------|---|--------------------------------------|---------------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 1st +2nd semester | 2 semesters | | | Comp. | | 8/ 240 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Introduction to immunology (1st sem.) | Lecture | 2 | 1 | Comp. | | graded | | |
| Introduction to molecular immunology (2nd sem.) | Lecture | 2 | 1 | Comp. | | | | |
| Basics of pathology (1st sem.) | Lecture | 3 | 3 | Comp. | Oral exam (2nd sem.) | | | |
| Molecular pathology (2nd sem.) | Lecture | 1 | 1 | Comp. | | | | |
| | | Seminar | 1 | 2 | Comp. | | | |
| ScienceMethod | | Medical Statistics (Methodology of Scientific Research) | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 1st semester | 1 semester | | | Comp. | | 4/ 120 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Introduction to medical statistics and evidence-based medicine | Lecture | 2 | 2 | Comp. | Written exam | graded | | |
| | Tutorial | 1 | 2 | Comp. | | | | |
| Soft Skills | | Skills for Scientific Research | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 1st semester | 1 semester1 | | | Comp. | | 4/ 120 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Orientation course: Studies and career | Seminar | 2 | 2 | Comp. | | not graded | | |
| Introduction to systems biology | Tutorial | 2 | 1 | Comp. | Written assignments during semester (combined exam) | | | |
| | Seminar | 1 | 1 | Comp. | | | | |
| Projects | | Project Planning | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd + 3rd sem. | 2 semesters | | | Comp. | Active preparation of block seminar | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Project planning and management (2nd sem.) | Seminar | 2 | 2 | Comp. | Oral presentation project proposal in teamwork | not graded | | |
| Meet the expert – research block seminar (3 rd sem.) | Seminar | 3 | 3 | Comp. | | | | |

| Genetics | | Human Genetics/Scientific Studies in Medical Research | | | | | | |
|--|----------------------------|--|-----------|---------------|--|--------------------------------------|---------------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 3rd semester | 1 semester | | | Comp. | | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Designing and realizing scientific studies | Lecture | 1 | 1 | Comp. | Multi-part exam part 1: Oral presentation | graded | 50% | |
| | Seminar | 1 | 1 | Comp. | | | | |
| Basics of human genetics | Lecture | 2 | 2 | Comp. | Multi-part exam part 2: Written tests for practical parts during semester (3-4; combined exam) | | 50% | |
| | Practical* | 1 | 1 | Comp. | | | | |
| WritEng | | English Scientific Writing | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd + 3rd semester | 2 semesters | | | Comp. | English proficiency passed | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| English Scientific Writing: Introduction (2 nd sem.) | Seminar | 1 | 1 | Comp. | Essay writing as homework (combined exam) | not graded | | |
| | Tutorial | 1 | 1 | Comp. | | | | |
| English Scientific Writing/Presentation Techniques: Advanced skills (3 rd sem.) | Seminar | 2 | 2 | Comp. | | | | |
| | Tutorial | 1 | 1 | Comp. | | | | |
| BioInfo | | Bioinformatics | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Comp. | | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Bioinformatics – basics and application | Lecture | 2 | 2 | Comp. | Written exam | graded | | |
| | Tutorial | 2 | 2 | Comp. | | | | |
| | Seminar | 1 | 1 | Comp. | | | | |
| Techno | | New Technologies in Biomedical Research | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload | | |
| 3rd semester | 1 semester | | | Comp. | | 3/ 85 Stunden | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| New technologies in biomedical research | Lecture | 2 | 2 | Comp. | Oral presentation | passed | | |
| | Seminar | 1 | 1 | Comp. | | | | |

Elective-compulsory modules outside focus areas (choose one)

| EpiBio | | Epidemiological and Translational Research Approaches | | | | | | | | | |
|---|---------------------|---|----|-------------|------------------------|-------------------------------|--------|------------------------|-------------------------------|--|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | | | | |
| 2nd+3rd semester | 2 semesters | | | Elec.-comp. | | 8/240 | | | | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | | | | |
| Cardiovascular epidemiology – basics (2 nd sem.) | Lecture | 2 | 2 | Comp. | Oral exam | graded | | | | | |
| | Seminar* | 1 | 1 | Comp. | | | | | | | |
| Cardiovascular epidemiology – continuation (3rd sem.) | Lecture | 2 | 2 | Comp. | | | | | | | |
| | Seminar* | 1 | 1 | Comp. | | | | | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lecture | 1 | 1 | Comp. | | | | | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lab seminar* | 2 | 1 | Comp. | | | | | | | |
| Imaging | | Imaging Techniques in Biomedicine and Translational Research Approaches | | | | | | | | | |
| In which semester | Duration | | | Status | | | | Admission requirements | Credit points/workload in hrs | | |
| 2nd+3rd semester | 2 semesters | | | Elec.-comp. | | 8/240 | | | | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | | | | |
| Medical imaging: Diagnostics (2nd Sem.) | Lecture | 1 | 1 | Comp. | Oral exam | graded | | | | | |
| | Seminar* | 1 | 2 | Comp. | | | | | | | |
| Medical imaging: Biomedical research (3rd Sem.) | Lecture | 1 | 1 | Comp. | | | | | | | |
| | Seminar* | 2 | 2 | Comp. | | | | | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lecture | 1 | 1 | Comp. | | | | | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lab seminar* | 2 | 1 | Comp. | | | | | | | |

| DiseaseTrace | Tracing Disease through Time and Translational Research Approaches | | | | | | |
|---|--|-------------|----|-------------|------------------------|-------------------------------|--------|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | |
| 2nd+3rd semester | 2 semesters | | | Elec.-comp. | | 8/240 | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight |
| Tracing disease through time (2 nd sem.) | Lecture | 2 | 2 | Comp. | Oral exam | graded | |
| | Seminar* | 1 | 1 | Comp. | | | |
| Tracing disease through time (3 rd sem.) | Lecture | 1 | 1 | Comp. | | | |
| | Seminar* | 2 | 2 | Comp. | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lecture | 1 | 1 | Comp. | | | |
| Regenerative medicine <i>or</i> Neurosciences <i>or</i> Barrier functions: Molecular interaction Epithelium – environment <i>or</i> Inflammation + degeneration of the eye (3rd sem.) | Lab seminar* | 2 | 1 | Comp. | | | |

Focus area 2nd semester (choose 1 out of 4)

| Inflammation I | | Focus Area Inflammation I | | | | | | |
|--|---------------------|--|----|-------------|------------------------|-------------------------------|--------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Introduction to clinical inflammation research | Lecture | 2 | 1 | Comp. | Written exam | graded | | |
| | Seminar* | 1 | 1 | Comp. | | | | |
| Case studies: Clinical practical | Clinical practical* | 3 | 3 | Comp. | | | | |
| Practical Inflammation I | | Research Practical Focus Area Inflammation I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Block practical research – Lab 1 | Practical* | 3 | 3 | Comp. | Lab book | graded | | |
| Block practical research – Lab 2 | Practical* | 3 | 3 | Comp. | | | | |
| Longevity I | | Focus Area Longevity I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Longevity – introduction to research of ageing and longevity | Lecture | 2 | 1 | Comp. | Written exam | graded | | |
| | Seminar* | 1 | 1 | Comp. | | | | |
| Case studies: Clinical practical | Clinical practical* | 3 | 3 | Comp. | | | | |
| Practical Longevity I | | Research Practical Focus Area Longevity I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Block practical research – Lab 1 | Practical* | 3 | 3 | Comp. | Lab book | graded | | |
| Block practical research – Lab 2 | Practical* | 3 | 3 | Comp. | | | | |

| Oncology I | | Focus Area Oncology I | | | | | | |
|---|---------------------|---|----|-------------|------------------------|-------------------------------|--------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 5/ 150 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Malignant diseases in humans - introduction | Lecture | 2 | 1 | Comp. | Written exam | graded | | |
| | Seminar* | 1 | 1 | Comp. | | | | |
| Case studies: Clinical practical | Clinical practical* | 3 | 3 | Comp. | | | | |
| Practical Oncology I | | Research Practical Focus Area Oncology I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Block practical research – Lab 1 | Practical* | 3 | 3 | Comp. | Lab book | graded | | |
| Block practical research – Lab 2 | Practical* | 3 | 3 | Comp. | | | | |
| Evolutionary Medicine I | | Focus Area Evolutionary Medicine I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 5/150 Stunden | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Evolutionary medicine - introduction | Lecture | 2 | 1 | Comp. | Written exam | graded | | |
| | Seminar* | 1 | 1 | Comp. | | | | |
| Case studies: Clinical practical | Clinical practical* | 3 | 3 | Comp. | | | | |
| Practical Evolutionary Medicine I | | Research Practical Focus Area Evolutionary Medicine I | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 2nd semester | 1 semester | | | Elec.-comp. | MolBio passed | 6/ 180 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Block practical research – Lab 1 | Practical* | 3 | 3 | Comp. | Lab book | graded | | |
| Block practical research – Lab 2 | Practical* | 3 | 3 | Comp. | | | | |

Focus area 3rd semester (Continuation of area chosen in 2nd semester)

| Inflammation II | | Focus Area Inflammation II | | | | | | |
|---|---------------------|-------------------------------------|----|-------------|--|-------------------------------|--------|--|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 3rd semester | 1 semester | | | Elec.-comp. | Inflammation I passed | 11/ 330 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Clinical inflammation research: Project development | Practical* | 9 | 8 | Comp. | Scientific essay + oral presentation (oral pres. in front of progr. committee) | graded | | |
| | Seminar* | 1 | 2 | Comp. | | | | |
| Current affairs (joint seminar) | Seminar* | 1 | 1 | Comp. | | | | |
| Longevity II | | Focus Area Longevity II | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 3rd semester | 1 semester | | | Elec.-comp. | Longevity I passed | 11/ 330 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Ageing in humans: Project development | Practical* | 9 | 8 | Comp. | Scientific essay + oral presentation (oral pres. in front of progr. committee) | graded | | |
| | Seminar* | 1 | 2 | Comp. | | | | |
| Current affairs (joint seminar) | Seminar* | 1 | 1 | Comp. | | | | |
| Oncology II | | Focus Area Oncology II | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 3rd semester | 1 semester | | | Elec.-comp. | Oncology I passed | 11/ 330 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Malignant diseases in humans: Project development | Practical* | 9 | 8 | Comp. | Scientific essay + oral presentation (oral pres. in front of progr. committee) | graded | | |
| | Seminar* | 1 | 2 | Comp. | | | | |
| Current affairs (joint seminar) | Seminar* | 1 | 1 | Comp. | | | | |
| Evolutionary Medicine II | | Focus Area Evolutionary Medicine II | | | | | | |
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | | |
| 3rd semester | 1 semester | | | Elec.-comp. | Evolutionary Medicine I passed | 11/ 330 | | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight | |
| Evolutionary medicine: Project development | Practical* | 9 | 8 | Comp. | Scientific essay + oral presentation (oral pres. in front of progr. committee) | graded | | |
| | Seminar* | 1 | 2 | Comp. | | | | |
| Current affairs (joint seminar) | Seminar* | 1 | 1 | Comp. | | | | |

Master thesis 4th semester

| Master | Master Thesis | | | | | | |
|-------------------|--------------------------|-------------|----|--------|--|-------------------------------|--------|
| In which semester | Duration | | | Status | Admission requirements | Credit points/workload in hrs | |
| 4th semester | 1 semester | | | Comp. | Module focus area 3rd semester passed, 90 ECTS | 30/ 900 | |
| Component | Type of instruction | Contact hrs | CP | Status | Type of examination | Evaluation | Weight |
| Master's thesis | Supervised research work | + | 30 | Comp. | Master's thesis | graded | |

+ depends on individual project and need for supervisors' input; supervisors are available for individual advice or set appointments.

* Mandatory attendance