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Faculty of Biology and Psychology (Lead Institute):

Following the resolution of the Faculty Council of the Faculty of Biology and Psychology dated 31.01.2018, the Presidential Board of the University of Göttingen approved the second amendment to the examination and study regulations for the consecutive international Master's/Doctoral degree programme "Molecular Biology" on 31.07.2018, in the version published on 16.07.2013 (Official Announcements I no. 29/2013, p. 851), last amended by resolution of the Presidential Board dated 30.09.2014 (Official Announcements I no. 35/2014 p. 1065), (§ 44 section 1 sentence 2 NHG in the version of the announcement dated 26.02.2007 (Nds. GVBl. p. 69), last amended by Article 4 of the Act dated 15.06.2017 (Nds. GVBl. p. 172); § 37 section 1 sentence 3 no. 5 b) NHG, § 44 section 1 sentence 3 NHG).

Examination and Study regulations for the consecutive international Master's/Doctoral degree programme "Molecular Biology" at the University of Göttingen

§ 1 Scope

(1) [1]The consecutive international Master's/Doctoral degree programme "Molecular Biology" is offered in a cooperation between the Faculty of Biology and Psychology, the Faculty of Medicine, the Faculty of Chemistry and the Faculty of Physics. [2]The lead institute is the Faculty of Biology and Psychology. [3]This research-oriented degree programme involves cooperation by the Centre of Molecular Biosciences Göttingen (GZMB), the European Neuroscience Institute Göttingen (ENI), the Max Planck Institute for Biophysical Chemistry, the Max Planck Institute for Experimental Medicine and the German Primate Centre, in particular through the provision of laboratory workplaces for students in the associated work groups.

(2) The provisions of the "General examination regulations for Bachelor's and Master's degree programmes as well as other degree programmes offered at the University of Göttingen" (APO) in their respectively valid versions shall apply to course sections I and IIa the consecutive international Master's/Doctoral degree programme "Molecular Biology".

(3) The provisions of the "Doctoral degree regulations in the mathematical-natural sciences graduate school at the Georg-August-Universität Göttingen – Georg-August University School of Science

(GAUSS) –" (RerNatO) in their respectively valid versions shall apply to the consecutive international Master's/Doctoral degree programme "Molecular Biology", course section IIb.
(4) This regulation specifies additional provisions for the completion of the course of studies in the consecutive Master's/Doctoral degree programme.

§ 2 Purpose of the academic programme, academic degree

(1) [1]The aim of the academic programme is to provide an intensive, research-oriented education in which the students can enlarge on and expand the knowledge, skills and competencies acquired in sciences associated with molecular biology/biomedicine within an advanced, inter-faculty course that includes the relevant extramural research institutions situated at the location. [2]Education in specialist knowledge includes the theoretical, methodical and experimental foundations required for scientific work and fosters abilities within fields of activity related to application, research and teaching.
(2) The master's examination in the research-oriented degree programme is intended to ascertain whether the examination candidates have acquired the fundamental specialised knowledge required to transition into professional practice, possess a grasp of the specialist contexts, and understand, as experts, how to apply more advanced scientific methods and insight in order to work as scientists in a specialist occupational field.
(3) Once the master's examination is passed, the Georg-August-Universität Göttingen awards the university degree "Master of Science", abbreviated "M. Sc.".
(4) The programme includes the option of being admitted to the doctoral phase (fast track) after successful completion of the course section I (intensive year as specified in § 4).
(5) The doctoral degree examination is intended to ascertain whether the examination candidate possess the ability for advanced, independent, scientific work.
(6) Upon successful completion of the doctoral degree examination, Georg-August-Universität awards the academic degree of Doctor of Natural Sciences (Dr. rer. nat.). This may be replaced by the title Doctor of Philosophy (Ph.D.) on the request of the doctoral candidate and will be awarded with the suffix "Division of Mathematics and Natural Sciences" to denote the focus on mathematics and natural sciences.

§ 3 Start of programme, duration, programme sections

(1) The academic programme starts with the winter semester.
(2) The standard course length is:

a) three semesters from the beginning of studies to the successful completion of the master's examination, and

b) six semesters after admission to study section IIb until successful completion of the doctorate.

(3) The degree programme cannot be done part-time.

(4) The academic programme is comprised of 120 C or credits (European Credit Transfer and Accumulation System (ECTS) until successful completion of the master's examination: C), which are distributed as follows:

a. to the subject-specific course 83 C,
b. to the area of professionalisation 7 C and
c. 30 C for the master's thesis.

(5) [1]The academic programme is divided into the following course sections:

a. the intensive year (course section I) with a scope of 90 C,
b. the master's thesis (course section IIa) with a scope of 30 C or the phase of doctoral studies (course section IIb).

(6) [1]The study and examination components in the intensive year should be completed in modules. [2]These modules are specified in the module overview (appendix 1). [2]The module index is published separately. It forms part of this regulation in as far as the modules are listed in the module overview (appendix I).

(7) The language of instruction and examination is English.

§ 4 Intensive year

(1) [1]The academic programme is organised as an intensive course in the first course section. [2]Its suitability as an academic programme is guaranteed by distributing the curriculum evenly across the entire period from October of the first subject semester to August of the second subject semester, hence differing from the announced period of lectures.

(2) The curriculum is divided into ten modules as specified in the module overview. These consist of four scientific-theoretical modules (theoretical modules; total of 27 C), four scientific-practical modules (practical modules; total of 56 C) and two in the area of professionalisation (total of 7 C).

(3) Each of the theoretical modules consists of lectures and tutorials. They are held sequentially as coherent blocks (A to D) across the entire intensive year. Their times are from 8 am to 9.45 am respectively, lectures on Mondays and Thursdays, corresponding tutorials on Tuesdays and Fridays.

(4) [1]The first three practical modules must also be completed successfully over the course of block A (most commonly by the end of the calendar year in the semester of enrolment). These modules focus on the acquisition of fundamental techniques of molecular biology and biochemistry. [2]The first

three practical modules are comprised respectively of one or two-day methodical courses. [3]The practical modules are held in each case after the lectures and tutorials. In addition, the fourth practical module is held on Wednesdays. [4]The courses contained in the first professionalisation module are held on four Wednesdays within block A. [5]Apart from this, the Wednesday during Block A will be kept mainly reserved for independent study. But students will have the opportunity to take part in presentations in the associated work groups on current questions of research.

(5) [1]The fourth practical module (M.MolBio.25) must be completed successfully during blocks B to D. [2]It represents the focus of a research-oriented, practical education on an advanced level. [3]It is comprised of three two-month research projects (Lab rotations; 15 C each) that can be selected from a broad range of facilities involved in the course of study and that are intended to cover very different fields of work in both methodical and content terms. [4]The independent research projects are held respectively in a research laboratory maintained by facilities involved in the degree programme, and involve one-on-one support. [5]The students are integrated within scientific laboratory routines and, on average, will spend around six hours per day in the laboratory. Teaching staff are scheduled to spend, on average, approximately one hour per day to provide one-on-one project support. [6]Students will draft a scientific report on each of the research projects they attend. [7]Furthermore, the results of two research projects each will be presented and discussed in a accompanying course within the framework of the second professionalisation module (5 C). [7]The research placements, organised as lab rotations, are held daily in blocks B to D, while the accompanying course takes place from 8 am to 9.30 am on Wednesdays between March and July.

(6) A period of independent study to prepare for the examinations comes at the end of the intensive year.

§ 4a Organisation of teaching

(1) The following teaching units and non-university institutions are involved in the training:

a) University Teaching Units and Facilities

aa) Biology (Uni-Bio),

ab) Pre-clinic medicine (Med-VK),

ac) Clinic-practical medicine (Med-KL),

ad) Clinic-theoretical medicine (Med-KT),

ae) Chemistry (Uni-Che),

af) Physics (Uni-Phy),

ag) Agricultural Sciences (Uni-Agr),

ah) European Neuroscience Institute (Med-ENI),

b) non-university institutions

ba) Max Planck Institute for Experimental Medicine (MPI-EM),
bb) Max Planck Institute for Biophysical Chemistry (MPI-BPC),
bc) German Primate Centre (DPZ).
(2) [1]The teaching components of the teaching units and non-university institutions are shown in the module descriptions. [2]Contrary to sentence 1, the proportion of teaching staff assigned to a teaching unit in the M.MolBio.25 module corresponds to the proportion of all staff involved in the teaching of this degree programme.
(3) The standard group size of courses held in the degree programme is:
a) for lectures and courses: 20,
b) for tutorials: 10,
c) for methodical courses: 5 and
d) for laboratory rotations: 1 (one-on-one support).

§ 5 Study and examination advice

(1) The specialised study advice is offered by the lecturers involved in the degree programme, the study advisers and the programme coordinator.
(2) The degree programme office performs the task, in particular, of supporting the individual study planning, furnishing information, and giving advice on study-related questions.
(3) In addition, a lecturer in the degree programme is assigned as a mentor to each of the students for the duration of the intensive year. The mentors meet with the students on a regular basis and advise them individually, in particular, on the selection of the two-month research placements in the fourth practical module and on decisions concerning academic programmes after the intensive year.
(4) The Central Student Advisory Office of the university is responsible for general study advice, especially regarding inter-faculty questions.
(5) The students should avail of study advice, especially in the following cases:

- on planning studies,
- after failing examinations,
- before a planned foreign period of studies,

§ 6 Form of the examination components; examination authorisation; registration and withdrawal; announcement of assessments

(1) Besides the examination components permitted according to the provisions of APO, the following subject-specific examination components can be planned:

Lab reports: A comprehensive, written report, composed in the English language and structured in the form of a scientific publication (brief abstract, introduction, material and methods, results,

discussion, bibliography, any appendixes) and, on the basis of which, the project as implemented and the results achieved therein can be clearly reconstructed.

(2) [1]All teachers involved in the degree programme are considered authorised examiners in the sense of § 11 APO, provided they have acquired membership in the Göttingen graduate centre for neuroscience, biophysics and molecular biosciences (GGNB). This will not require any special appointment. [2]Scientists who hold a doctorate in the relevant subject area but are not members of GGNB may be assigned as academic advisers in the master theses without any necessity of appointment as authorised examiners.

(3) Deviating from § 10 a APO, students register and withdraw from examinations exclusively with the office of the degree programme.

(4) Deviating from § 20 section 2 sentence 1 APO, the office of the degree programme makes the announcement of assessments for examination components to the students in text form.

§ 7 Theoretical block examination

(1) The theoretical block examination, held within 4-8 weeks following the end of lectures, marks the end of the first course section. It is the joint module examination for the four theoretical modules.

(2) [1]The examination candidate registers for the examination with the office of the degree programme. [2]Registration must take place by no later than 2 weeks following the end of lectures in the second subject semester.

(3) The theoretical block examination takes place in the English language and consists of the following two examination sections:

a. a 5-hour written examination that may be held entirely or partially using the multiple-choice method,
b. an approx. 60-minute oral examination, consisting of two approx. 30-minute sections on two thematic focuses, announced with appropriate notice in advance.

(4) [1]The theoretical examination is passed, provided that the student receives an assessment of at least “sufficient (4.0)” in each of the examination sections. [2]The grade of the theoretical block examination is the arithmetic average of the grades achieved in each of the examination sections, weighted identically.

(5) [1]Deviating from § 16 a section 1 APO, the theoretical block examination can be repeated once. [2]The repeat must take place within eight weeks following announcement of the fail in the first examination attempt. Students must and may only retake examinations sections they did not pass.

§ 8 Admission to course section IIa (master’s thesis)

(1) The successful completion of all modules in the intensive year and the successful completion of the theoretical block examination are required for admission to the master's thesis.

(2) [1]The application for admission to the master's thesis must be filed with the degree programme office and must have been received there by no later than 15/09. [2]The following material must be enclosed with the application:

a) proof of fulfilment as concerns the requirements specified under section 1,
b) proposal of the topic for the master's thesis,
c) a proposal for the first academic advisor or the second academic advisor,
d) a written confirmation of the first academic advisor and the second academic advisor,
e) a declaration specifying that the master's examination has not been failed definitively or registered as definitively failed in the same or similar master degree programme at a domestic or foreign university.

[3]The proposals under letters b) and c), as well as the proof as specified under letter d), are unnecessary if the student provides assurance that he or she has been unable to find an academic advisor.

(3) [1]The examination board decides on admission. [2]Admission will be refused if the qualifications for entry are not fulfilled or the master's examination in the same or comparable master degree programme at a domestic or foreign university has been definitively failed.

§ 9 Master's thesis

(1) [1]With the written master's thesis, the candidate should prove that he or she is in a position to process a scientific topic using the methods of his or her research area in the specified time frame, develop an independent, scientifically established judgement, arrive at scientifically underpinned statements and illustrate the results in a linguistically as well as formally appropriate manner. [2]30 C are awarded for successful completion of the master's thesis.

(2) [1]The provisional working topic of the master's thesis should be agreed with the proposed academic advisor and submitted with confirmation from the second academic advisor to the examination board concerned. [2]In the event of the candidate is unable to find an academic advisor, the examination board will specify an academic advisor and a topic. [3]The candidate's view should be considered in choosing the topic. [4]The right to make a proposal for the choice of topic does not constitute a legal right. [5]The office of the degree programme will issue the topic of the master's thesis. It must, in this context, observe the regulations issued by the examination board in this respect. [6]The time of issue must be recorded.

(3) [1]Students shall have 6 months in which to complete their master's thesis. This begins on the first day of the winter semester. The programme committee will issue a ruling in the event that the deadline is missed. [2]Upon application by the candidate, the examination board can extend the deadline for submitting the thesis by a maximum of 8 weeks, upon agreement with the first academic advisor and existence of an important reason that cannot be attributed to the candidate. [3]An important reason normally exists in the case of an illness that is to be notified immediately and demonstrated by producing a medical certificate.

(4) [1]The topic can be returned only once and only within the first 4 weeks of the time allotted for completing the thesis. [2]A new topic must be agreed upon immediately, but no later than within 4 weeks. [3]In the event that a master's thesis is repeated, the topic may be returned only in accordance with sentence 1 if the examination candidate has not resorted to this option in the first examination attempt.

(5) [1]The master's thesis must be submitted on time and in two copies to the office of the degree programme. [2]Additionally, a text version must be submitted in the format of a commonly used word processing program or in PDF format (unprotected) at the same time and it must be ensured that the written version and the supplementary version submitted match each other. [3]The time of submission should be recorded. [4]Upon submission, the candidate should declare in writing that he or she has independently compiled the work and has not used any sources and tools other than those specified.

(6) The master's thesis must be drafted in English.

(7) [1]The office of the degree programme forwards the master's thesis to the first advisor and the second advisor as a reviewer. [2]Each reviewer will award a grade. [3]The duration of the assessment procedure should not exceed four weeks.

(8) [1]Deviating from § 16 section 5 APO, if the difference between assessments by the two reviewers is at least 1.0, or an assessment is "insufficient" while the other is "sufficient" or higher, a third reviewer will be appointed for the assessment of the master's thesis. [2]In this case, the examination board will reach a final decision on the final grade of the master's thesis on the basis of all expert reviews.

§ 10 Grade point average of the master's examination, peremptory failure

(1) The master's examination is passed if at least 120 C were acquired and all of the required module examinations, the theoretical block examination and the master's thesis have been passed.

(2) Unlike § 16 section 8 sentence 1 APO, the current average grade of the master's examination is calculated on the basis of the arithmetic average of the two grades in the block examination and master's thesis.

(3) In addition to the cases described in APO, the right to examination is cancelled definitively insofar as the theoretical examination has been failed or is considered failed in the second attempt.

§ 11 Admission to course section IIb (doctoral studies phase); doctoral studies; doctoral degree examination

(1) [1]The requirements for progression to the course section IIb are successful completion of the modules in the intensive year and the successful completion of the theoretical block examination with the grade ”good” (2.5) or higher. [2]Insofar as a master’s thesis was submitted, it must also be completed with the grade “good” (2.5) or higher.

(2) [1]Section 1 notwithstanding, students may progress to course section IIb insofar as they

a) have not achieved the grade “good” (2.5) in the theoretical block examination, but have achieved the grade “satisfactory” (3.0) or higher,

b) have successfully completed the master’s thesis with the grade “very good” (1.5) or higher and

c) have produced outstanding results in the research placements attended.

[2]Before any ruling is made in this respect, an opinion must be obtained from the scientists responsible for the management of the research placements.

(3) An additional entrance requirement is at least one written declaration by an authorised examiner that he or she will accept and supervise the student as a doctoral candidate in the programme.

(4) [1]The application for admission to course section IIb must be filed with the degree programme office and must have been received there by no later than the 15th of the month before the start of the semester. [2]The following material must be enclosed with the application:

a) Proof of fulfilment as concerns the requirements specified under section 1 to 3,

b) A declaration specifying that the doctoral degree examination has not been failed definitively or registered as definitively failed in the same or comparable doctoral degree programme at a domestic or foreign university.

(5) [1]The examination board decides on admission. [2]This should be rejected if the qualifications for entry and admission are not fulfilled or the doctoral degree examination in the same or comparable doctoral degree programme at a domestic or foreign university has been definitively failed.

(6) The provisions contained in RerNatO shall apply accordingly to the nature and scope of the doctoral studies, implementation of the doctoral degree examination, and the completion of doctoral studies.

§ 12 Responsibilities

(1) [1]The tasks of the examination board responsible for the Master's degree programme as specified in APO will be performed by the programme committee convened on the basis of the regulation for the Göttingen graduate school for neuroscience, biophysics and molecular biosciences (GGNB). This committee will be joined by one student member in matters relating to the tasks of the examination board as defined in the APO. This student representative will be elected by the students in the same degree programme and will remain in office for one year. [2]Notwithstanding the statutory responsibility of the Dean of Studies and the Advisory Board for questions relating to teaching and learning, the programme committee is also responsible for all matters relating to the coordination of the master degree programme and course planning. In general, it will draw on support from the office of the degree programme in the fulfilment of its tasks.

(2) The ongoing operations may be transferred to the chairperson.

(3) [1]The office of the degree programme deals with the tasks of the examination office. [2]Within the framework of the specifications for the programme committee, it shall also be responsible for general organisation and coordination of the courses and degrees offered, for quality assurance, for equal opportunities measures, public relations, and reporting within the degree programme.

§ 13 Entry into force; amendments

(1) This regulation enters into force following its promulgation in the Official Announcements I of Georg-August-Universität Göttingen as per 01.10.2013.

(2) At the same time, the examination regulations for the Master's/Doctoral degree programme "Molecular Biology" in the version contained in the announcement dated 27.03.2002 (Official Announcements I no. 5/2002 p. 95) and the study regulations for the Master's/Doctoral degree programme "Molecular Biology" in the version contained in the announcement dated 23.05.2002 (Official Announcements I no. 8/2002 p. 180) shall cease to be effective.

(3) The regulations as specified in section 2 shall remain in force for students enrolled in the consecutive Master's/Doctoral degree programme "Molecular Biology" before this examination and study regulation came into force.

(4) [1]The Faculty Council of the Faculty for Biology and Psychology shall rule on amendments to this examination and study regulation. [2]The faculty councils in the remaining faculties involved in managing the course must be given the opportunity to submit motions before a resolution is passed.

Appendix I Module overview

Master's/Doctoral degree programme "Molecular Biology"

I. Course section I (intensive year)

The following modules with a rating of 90 C in total must be successfully completed.

a. Theoretical modules

The following 4 modules with a rating of 27 C must be successfully completed:

M.MolBio.11	DNA and Gene Expression (7 C)
M.MolBio.12	Metabolic and Genetic Networks (5 C)
M.MolBio.13	Cell Biology, Immunology, Neuroscience and Developmental Biology (10 C)
M.MolBio.14	Model Systems and Biotechnology (5 C)

b. Practical modules

The following 4 modules with a rating of 56 C must be successfully completed:

M.MolBio.21	Methods Courses: Proteins, Nucleic Acids, Cell Biology and Genetics (5 C)
M.MolBio.22	Methods Courses: Bioinformatics and Statistics (4 C)
M.MolBio.24	Methods Courses: Special Techniques in Molecular Biology (2 C)
M.MolBio.25	Lab Rotations (45 C)

c. Area of professionalisation:

The following 2 modules with a rating of 7 C must be successfully completed:

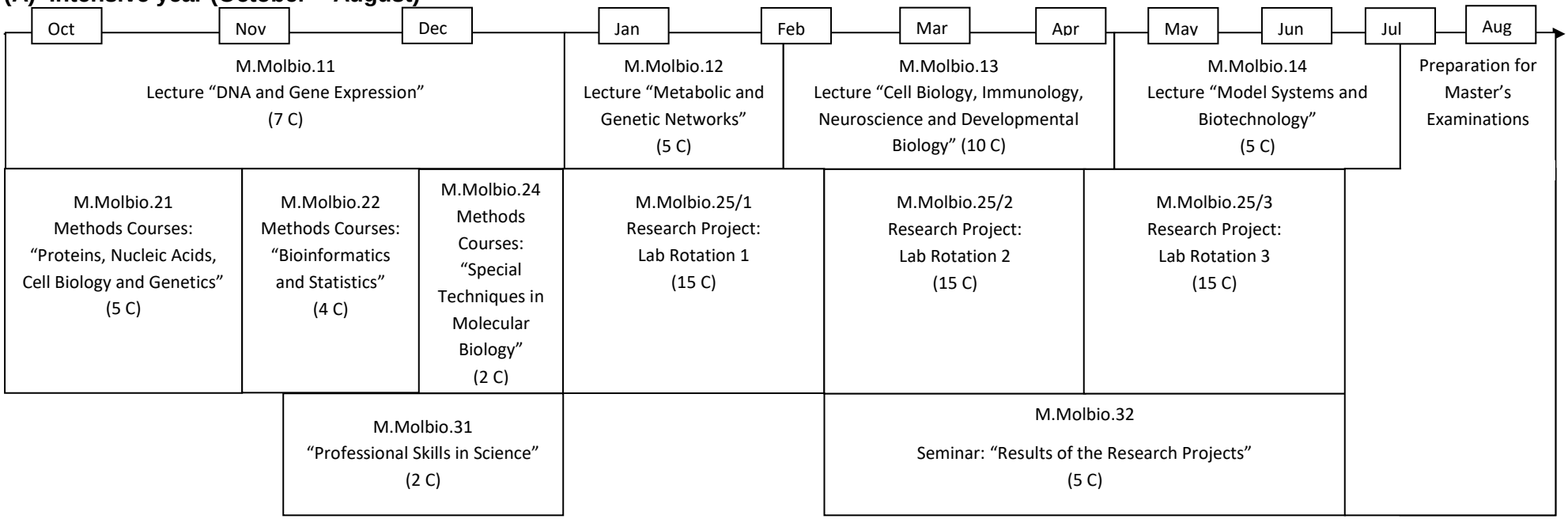
M.MolBio.31	Professional Skills in Science (2 C)
M.MolBio.32	Seminar: Results of the Research Projects (5 C)

II. Course section IIa (master's thesis)

30 C are awarded for successful completion of the master's thesis.

Appendix II Sample curriculum

(A) Intensive year (October – August)



(B) Integrated master and doctoral studies

a. Consecutive

Intensive year: Master degree course (90 C)	Master's thesis (30 C)	Doctoral studies – 3 years (Doctoral thesis plus 20 C)

b. "Fast Track"

Intensive year: Master degree course (90 C)	Doctoral studies – 3 years (Doctoral thesis plus 20 C)