

# **Examination Regulations for the Bachelor of Science and Master of Science Degree Program in Bioinformatics**

**of 8 June 2006**

Note: This translation is provided for information purposes only. In cases of discrepancies, the currently valid German version shall prevail.

Pursuant to section 59 of Law No. 1556 on Saarland University (Saarland University Act) of 27 August 2004 (Official Gazette, p. 476), the Center for Bioinformatics hereby promulgates the following Examination Regulations for the Bachelor of Science and Master of Science degree programs in Bioinformatics as approved by the University Presidium:

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## **I. General Provisions**

### **Section 1           Area of Application, Competence**

- (1) These regulations govern the examinations for the Bachelor of Science and Master of Science degree programs in Bioinformatics at Saarland University. These degree programs are an interdisciplinary collaborative effort of the following faculties and research institutions: Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science), in addition to the German Research Institute for Artificial Intelligence, the Max Planck Institute for Computer Science, and the Fraunhofer Institute for Biomedical Engineering (IBMT).
- (2) The Center for Bioinformatics of Saarland University is the competent authority for the organization of instruction, studies and examinations, the Center being founded by virtue of the joint resolution of the deans of the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science) for the purpose of promoting research and teaching in the field of bioinformatics.
- (3) The Center for Bioinformatics of Saarland University confers the degrees of Bachelor of Science (B.Sc.) and Master of Science (M.Sc.) on the basis of the examination procedure governed by these regulations.
- (4) Details relating to the content and structure of the degree program are contained in the Degree Program Regulations, which specify the structure of the degree program and the compulsory, compulsory elective and free elective modules.
- (5) All of the provisions contained herein pertain to studies on a full-time and part-time basis, unless specified otherwise.

### **Section 2           Principles**

- (1) The bachelor's and master's degree programs are core degree programs within the meaning of article 5 of the General Examination Regulations of Saarland University for the Bachelor's and Master's Degree Programs (BMRPO) of 15 December 2004. The degree program is subdivided into module elements (cf. section 3) classified as lectures, with or without tutorials, proseminars, seminars and practical courses. Each of those completing the bachelor's or master's degree program must additionally write a thesis, i.e. the bachelor's or master's thesis.
- (2) In the bachelor's program the student acquires the skills for theory-oriented and practical work and knowledge of the fundamentals of selected areas of study. This leads to the first professional degree, with the bachelor's program being concluded by the final examination leading to the bachelor's degree.
- (3) In the master's program which follows, the student acquires the skills for scientific and academic work and knowledge of more in-depth fundamentals and essential research findings in selected areas of study. The master's program is concluded by the final examination leading to the master's degree.
- (4) The bachelor's program is comprised of modules of a minimum total of 168 credit points and the bachelor's thesis of 12 credit points; building on the bachelor's program, the master's program is comprised of modules of a minimum total of 90 credit points and the master's thesis of 30 credit points. Minimum numbers of credit points are specified for various areas.
- (5) The bachelor's and master's degree programs can be completed on a full-time or part-time basis (cf. section 14).

### **Section 3           Modularization of Courses and Credit Points**

- (1) Modularization of courses refers to compiling subject matter areas into topically and chronologically self-contained units (modules or module elements) whose subject matter can be examined and for which credit points are awarded. A module category generally consists of several consecutive module elements (courses) featuring coordinated content which are concluded by examinations on whose basis credit points are awarded. Various module elements of a term or an academic year may be compiled into modules.
- (2) Academic success and progress is documented on an on-going basis by way of the acquisition of credit points. A credit point (CP) corresponds to a workload of 30 hours.
- (3) Credit points are generally acquired by virtue of a combination of coursework (*Studienleistungen*) and examinations and other graded assessments (*Prüfungsleistungen*). As to practical courses and individually attributable work, credit points are awarded for the respective time exposure.
- (4) The module categories and (associated) module elements are described in the Degree Program Regulations and in the curriculum of the Bachelor of Science and Master of Science degree programs in bioinformatics. Each module or module element is listed with the number of credit points awarded for its successful completion. The description of the module elements also contains a specification of which type(s) of examination(s) is (are) administered and whether the awarding of credit points is linked to a review associated with one or more module elements of a module.
- (5) A module or module element is assessed either on a pass/fail basis or by a grade awarded in accordance with section 10. Modules containing a seminar (proseminar, seminar, bachelor's or master's seminar) as a component (module element) are to be assessed by way of a grade.
- (6) The credit points of a module cannot be obtained unless the module is comprised of at least one credit point and is concluded by way of a graded or assessed performance review and the performance of individually attributable graded or assessed coursework.
- (7) Examinations of the subject matter of a module or module elements are conducted in a course-related manner.
- (8) The credit points earned are additionally itemized for the certifications of achievement pertaining to the modules/module elements and examinations (e.g. seminar certificate, transcript).
- (9) An account (*Studienkonto*) is maintained for each student in the Examinations Office of the Center for Bioinformatics which is updated at the end of each term in reference to coursework and examinations completed by the student including the number of credit points awarded. Credits earned and coursework accredited elsewhere (e.g. in a distance study program or studies abroad) are taken into account.

#### **Section 4          Standard Period of Study**

- (1) The standard period of study for the bachelor's degree program including the completion of the bachelor's degree examination is six terms, or up to nine terms for study on a part-time basis. If only portions of the bachelor's degree program are completed on a part-time basis, the standard period of study is computed on the basis of the respective portions, the result being rounded up to full terms.
- (2) The standard period of study for the master's degree program including the completion of the master's degree examination is four terms, or up to six terms for study on a part-time basis. If only portions of the master's degree program are completed on a part-time basis, the standard period of study is computed on the basis of the respective portions, the result being rounded up to full terms.
- (3) The examination regulations and respective degree program regulations are designed so that the examinations can be completed within the standard periods of study.
- (4) Periods for which the student can furnish proof of having been enrolled in a course or program of study abroad are not counted towards standard periods of study. In the event that the student seeks to have the credits earned abroad accredited, a term of study abroad is not counted toward the standard period of study unless the number of credit points earned corresponds to the number of credit points obtainable in the student's degree program at Saarland University. Application can be made to the board of examiners for taking statutory maternity leave, parental leave and fulfilling family obligations (raising a minor child and

looking after relatives in need of care).

- (5) Terms during which the student took leave of absence are not counted towards the standard period of study.

## **Section 5 Board of Examiners**

- (1) A board of examiners is appointed to attend to the tasks specified herein, to which the following members are elected by the Board of the Center for Bioinformatics for periods of two years:
1. three professors
  2. academic staff member employed on a full-time basis at the Center for Bioinformatics
  3. one student
- A deputy is to be elected for each member.
- (2) The Board of the Center for Bioinformatics elects from among the members of the board of examiners pursuant to section 5(1) (1) the chairperson of the board of examiners and his or her deputy.
- (3) A quorum shall be deemed to be present at a meeting of the board of examiners when its members have been duly invited and a majority of the board members are present. The board passes its resolutions by way of a majority of votes cast by the members present. In the event of tie votes the chairperson shall cast the tie-breaking vote. The member from the student body acts only in an advisory capacity when issues require a decision which pertain to the assessment of the bachelor's or master's degree examination, unless he or she possesses the respective qualification him- or herself.
- (4) The board of examiners ensures that adherence is maintained to the provisions of the examination regulations. It passes decisions in cases of doubt and exception which are deliberated in response to a petition submitted by an examination candidate. The candidate is to be sent written notification of the board's decision.
- (5) The board of examiners reports to the Board of the Center for Bioinformatics and the competent faculties and departments on the on-going situation of examinations and periods of study, provides recommendations for reforming the Examination Regulations and the Degree Program Regulations, and discloses the distribution of examination grades and aggregate final grades.
- (6) The members of the board of examiners are entitled to attend the assessments of module elements or modules.
- (7) The members and deputy members of the board of examiners are obligated to maintain confidentiality pursuant to section 17(2) of the Basic Constitution of Saarland University.

## **Section 6 Examiners and Assessors**

- (1) The board of examiners, or the chairperson on the board's behalf, appoints the examiners and the assessors.
- (2) The following may be appointed examiners: individuals responsible for the respective examination subject, i.e. professors, junior professors, junior research group leaders, university lecturers (*Hochschuldozenten*), professors with emeritus status, honorary professors (*Honorarprofessoren*), unsalaried lecturers (*Privatdozenten*), associate professors (*außerplanmäßige Professoren*) of the Center for Bioinformatics and the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science), in addition to the coopted professors in the faculties. In special cases the following individuals may also be appointed examiners: full-time instructors, academic and research assistants, free-lance teaching staff for their subject matter, and professors of other faculties of Saarland University and other academic institutions of higher learning as well as academic and research staff of the Max Planck Institute for Computer Science and Software Systems, the German Research Institute for Artificial Intelligence, and the Fraunhofer Institute for Biomedical Engineering (IBMT).
- (3) As to examination modules or sections, the instructors of the respective module elements are also examiners.

- (4) Only those individuals may be appointed assessors who have completed the Diplom or master's degree examination in one of the subjects relevant for the examination at an academic institution of higher learning.

## **Section 7 Examinations and Other Graded Assessments**

- (1) The bachelor's degree examination consists of several examination sections and a thesis, the bachelor's thesis. The individual examination requirements of the bachelor's degree examination can be satisfied either by way of the specialization Methodological Bioinformatics (Computation Molecular Biology or CMB) or the specialization Applied Bioinformatics (BI). Both specializations are defined in the degree program regulations. The master's degree examination consists of several examination sections and an academic or research thesis, the master's thesis. The examination sections take the form of continuous assessment and are generally in relation to a single module or module element of a term.
- (2) Each module or module element contains an — in most cases graded — assessment which takes place at the beginning of the following term at the latest. The examination requirement is deemed to have been satisfied when the assessment is passed, the student accordingly being awarded the credit points for the module or module element.
- (3) Assessments are oral or written examinations, which can also be distributed over more than one date/time, projects (practical courses), seminar presentations and papers, or combinations thereof. The nature and duration of the assessment for a module or its module elements are announced at the beginning of the respective module or module element. In the case of combinations, the weighting of the respective parts is to be indicated. The dates and times for the assessments are to be announced to the student no later than three weeks in advance. Students are to register with the Examinations Office of the Center for Bioinformatics for an assessment no later than two weeks before the scheduled date/time of the assessment.
- (4) The examinations of the compulsory elective courses are generally written. In the bachelor's degree program, at least three oral examinations have to be completed in the core area of bioinformatics, with a minimum of one oral examination being specified in the core area of bioinformatics for the master's degree program.
- (5) The grades are announced to the students no later than one month subsequent to the assessment and filed with the Examinations Office.
- (6) Oral examinations generally last 15 to 30 minutes for each student. They are administered before two examiners or before one examiner in the presence of an expert assessor. Minutes are to be kept of the essential items and results of the examination. Prior to setting the grade the examiner listens to the comments of the assessor. The minutes are signed by the examiners or the examiner and assessor. In oral examinations, students of the same subject or field may be admitted as audience participants, depending on the room facilities present and availability of space, providing the examinee so consents. However, they shall not be admitted to the deliberation or announcement of the examination result.
- (7) Written assessments (proctored written examinations, papers, written elaborations, project documentations and implementations) are evaluated by an expert examiner. Proctored examinations generally last 90 to 120 minutes, and may last up to 180 minutes. The completion time for papers, written elaborations, project documentations and implementations is announced at the beginning of the respective module or module element.
- (8) Written examinations are administered in the language of the module being examined. Written examinations or sections thereof can be completed in German or English. Oral examinations can be conducted in German or English in accordance with the student's preference. However, deviating from the module language is not possible unless the examiner masters that language.
- (9) In the event that a student furnishes proof in the form of a medical certificate that s/he is not able to complete an examination in whole or in part in the prescribed manner due to a permanent health impairment, the chairperson of the board of examiners is to allow the student to complete examinations of an equivalent nature in another manner.
- (10) Taking statutory maternity leave, parental leave and fulfilling family obligations (raising a minor child and

looking after relatives in need of care) is permitted.

- (11) In the event of objections being lodged against the evaluation of an examination or section thereof, the board of examiners shall pass a decision after hearing the respective examiner.
- (12) In the event that the student has acquired more than the minimum number of credit points, s/he can select a subset of the passed assessments for inclusion in the bachelor's or master's degree certificate as well as have one or more assessments with a minimum grade of "pass" converted into one or more ungraded passed assessments, provided that all the requirements with regard to the minimum number of credit points are satisfied. Each module or module element can be taken into account in only one module category pursuant to section 17 or 24. Modules or module elements which have been successfully completed more than once during different terms can be taken into account only once. The module elements for the master's degree certificate have to be different from the module elements of a bachelor's degree certificate on which admission to the master's degree program is based. No module elements of a bachelor's degree program can be included in the master's degree certificate.
- (13) The module and module elements are to be included in the bachelor's and master's degree certificate with their total number of credit points as "graded" or "ungraded" pursuant to sections 4 and 5 of the Degree Program Regulations, even if the minimum number of 180 CP and 120 CP is exceeded.

## **Section 8      Crediting of Coursework and Graded Assessments**

- (1) Coursework and graded assessments of a comparable degree program at a university or equivalent higher institution of learning located in the area of application of the German Framework Act for Higher Education (*Hochschulrahmengesetz*) are accredited without any equivalency check being performed.
- (2) Coursework and grades of other degree programs are accredited provided that they are found to be equivalent. In so doing, no routine comparison is to be performed, but rather a global review and evaluation are to be performed. When recognizing the coursework and graded assessments completed outside the Federal Republic of Germany, adherence is to be maintained to the equivalency agreements approved by the Standing Conference of the Ministers of Education and Cultural Affairs in the Länder of the Federal Republic of Germany (*Kultusministerkonferenz*) and the Conference of Rectors and Presidents of Universities and Other Higher Education Institutions (*Hochschulrektorenkonferenz*) as well as agreements within the framework of university partnerships.
- (3) Sections 8(1) and 8(2) apply mutatis mutandis to the coursework and graded assessments of state-accredited distance learning programs.
- (4) In the event that coursework and graded assessments are recognized, the corresponding credit points and grades are to be taken over — insofar as the grading systems are comparable — and included in the computation of the aggregate final grade as provided for herein. In the event that the grading systems are dissimilar, coursework and graded assessments are to be accredited in the form of ungraded credit points. The accreditation of coursework and graded assessments completed elsewhere is to be indicated in the bachelor's and master's degree certificates.
- (5) The student has a legal right to accreditation when the prerequisites of sections 8(1) to 8(3) are satisfied. The crediting of periods of study, coursework and graded assessments completed in the Federal Republic of Germany is done ex officio. The student is to submit the documentation required for accreditation. When sufficient decision-making fundamentals have been submitted, preliminary inquiries pertaining to the accreditation of periods of study, coursework and graded assessment are to be decided as well.
- (6) The board of examiners, or the chairperson on the board's behalf, is responsible for the accreditation of periods of study, coursework and graded assessments pursuant to sections 8(1) to 8(3). A competent representative is to be heard prior to the passage of decisions pertaining to equivalency.

## **Section 9      No-Show, Withdrawal, Cheating and Breach of Regulations**

- (1) An examination or section thereof is evaluated as "fail" when the student does not adhere to a submission deadline, does not appear at an examination, or leaves the examination once it has commenced without a

compelling reason.

- (2) The board of examiners is to be notified immediately of the reasons being asserted for premature departure or no-show, this to be done in writing and substantiating evidence submitted. The board may demand that a medical certificate be submitted. The illness of a dependent child for whose care the student is primarily responsible is considered to be equivalent to an illness on the part of the student himself or herself with regard to the reasons for the premature departure from or non-appearance at an examination. If the reasons put forward are found to be valid, the examination is deemed to not have been taken and a new date and time may be set provided that this is permitted by the nature of the respective examination.
- (3) The board of examiners enables students to take statutory maternity leave and parental leave provided that application is made to this effect.
- (4) In the event that an examinee seeks to influence the result of an examination or section thereof by way of deception (cheating) or using impermissible aids, the examination or section thereof shall be deemed to have been failed.
- (5) The student may submit a request within two weeks that a decision made pursuant to section 9(4) be reviewed by the board of examiners. Unfavorable decisions pursuant to section 9(4) must be communicated to the student immediately and in writing, stating the reasons of such a decision and informing the student of the legal remedies available.

## **Section 10 Evaluation of Examinations, Certificates**

- (1) The grades for the individual examinations or sections thereof are set by the respective examiners. An examination or section thereof is evaluated with one of the following grades:
  - 1 = excellent = an outstanding achievement,
  - 2 = good = an above-average achievement,
  - 3 = satisfactory = an average achievement,
  - 4 = pass = an achievement meeting the required standard despite some deficiencies,
  - 5 = fail.

To further differentiate the student's performance, intermediate grades may be awarded by raising or lowering the student's grade in increments of 0.3. The grades 0.7, 4.3 and 5.3 may not be awarded. An examination for which a grade of "fail (=5)" is given is considered to not have been passed.
- (2) In the event there is a discrepancy in the grade awarded by two examiners for a written examination, the grade for this examination shall be computed as the arithmetic mean of the grades proposed by the examiners. The mean value is to be rounded up to the next higher (intermediate) grade as applicable.
- (3) Grading is to be supplemented by the ECTS grade pursuant to section 12(3) of General Examination Regulations of Saarland University for the Bachelor's and Master's Degree Programs (BMRPO), this grade providing information on the student's relative standing. In the event that the size of the reference group does not provide viable information about the percentage distribution of grades, a pragmatic approach is to be applied instead.
- (4) The bachelor's and master's degree certificates are to feature the title, the term and the respective examiner of the examinations or sections thereof or other graded assessments successfully completed which are selected for inclusion in the certificate pursuant to section 7(12) above, along with their respective credit points and grade, as applicable. In addition, the total number of credit points and the aggregate final grade are to be listed on the certificate. The aggregate final grade is the weighted arithmetic mean of the credit points awarded for graded examinations and sections thereof. This mean value is to be calculated only to the first decimal place without any rounding. The aggregate final grade is to then be rounded off as follows and entered in the certificate:
  - up to 1.5: excellent,
  - over 1.5 to 2.5: good,
  - over 2.5 to 3.5: satisfactory,
  - over 3.5 to 4.0: pass.

- (5) The master's degree certificate / diploma is awarded with honors (Honor's Degree) when the degree program was completed within the standard period of study or sooner and one of the following criteria is satisfied:
- a) the aggregate final grade is 1.3 or better or
  - b) the aggregate final grade is 1.9 or better and the student completed a minimum average of 35 credit points per term throughout the entire degree program.
- The credit points credited in the master's degree program are treated the same manner in the standard period of study and computing the average load carried per term.
- (6) The bachelor's and master's degree certificates and diplomas are issued in German and English. With the diploma the academic degree of Bachelor of Science (B.Sc.) or Master of Science (M.Sc.) is conferred upon the student.
- (7) Students can also apply to the Examinations Office for a transcript listing all of the credit points awarded to them to date. This transcript is structured in a manner similar to a certificate.

### **Section 11 Repetition of Examinations and Graded Assessments**

- (1) Repeating the examination or graded assessment of a module or module element of a term is possible only in accordance with the terms and conditions laid down in the module description. However, a student may take part in the examination or graded assessment of the same module or module element a total of three times (including two repetitions) in different terms. An examination upon whose successful completion the student's proceeding in the degree program is dependent must be administered by two examiners. Passed examinations which are completed during the standard period of study may be repeated within one year, and only once, upon application being made by the student; the better result counts. The standard period of study may be specified for each module or module element in the module description.
- (2) A thesis (bachelor's/master's thesis) for which a grade of "fail" has been awarded may be repeated once, subject to the assignment of a new topic. Registration for a bachelor's/master's seminar or a new thesis has to be done within three months of the evaluation of the first thesis.

### **Section 12 Honors Program**

- (1) Students with excellent achievements can be accepted into the honors program after the end of their first term in the bachelor's degree program. The aim of the honors program is to enable gifted students to earn an honor's degree by virtue of individual support and fostering and prepare them for entry into the doctoral program. Students in the honors program are expected to work harder than those in the standard degree program. They are expected to assume a heavier courseload and thus complete their degrees one or two terms earlier than those in the standard degree program or prepare themselves in a targeted manner for a Ph.D. project by successfully completing additional in-depth coursework. Each of the students in the honors program is assigned a professor as his or her mentor. The mentor meets with the student on a regular basis to discuss the current status of the student's studies and act as an academic advisor. Dedicated tutorials are set up for the students of the honors program, and proseminars and seminars offered — subject to the availability of teaching staff — which are specially tailored to the honors program with regard to their content and the demands made of the students.
- (2) Acceptance into the honors program generally takes place at the beginning of the second term on the basis of the student's academic achievements of the first term. Acceptance can also take place at a later date upon application of the student.
- (3) Acceptance into the honors program should not be done unless the student's achievements to date indicate that s/he is capable of completing the degree program within the standard period of study with an aggregate final grade of 1.3 or better. An aggregate final grade of 1.9 or better also qualifies in the event that a heavier courseload of a minimum of 35 credit points is taken per term.
- (4) Students may be precluded from further participation in the honors program when it becomes clear that they are unable to satisfy the requirements specified in section 12(3).



- (5) Honors program students are to write a report every term on their activities and progress during the preceding term. These reports may be examined by the instructors of the Center for Bioinformatics.
- (6) Honors program students must earn a minimum of 4 credit points as a tutor (teaching assistant) in a computer science basic or core module.
- (7) The faculty board of the Faculty of Natural Sciences and Technology I elects the head of the honors program. The head of the honors program decides who is admitted into the program and whether they may remain in the program.

### **Section 13      Monitoring of Progress**

- (1) Students pursuing the bachelor's degree program on a full-time basis are expected to comply with the following minimum requirements:
  - a) After 1 term: completion of a minimum of 9 credit points,
  - b) After 2 terms: completion of a minimum of 18 credit points,
  - c) After 4 terms: completion of a minimum of 60 credit points,
  - d) After 6 terms: completion of a minimum of 105 credit points,
 Only the minimum requirements detailed in sections 17(2) and 17(3) are included here.
- (2) Students pursuing the master's degree program on a full-time basis are expected to comply with the following minimum requirements:
  - a) After 1 term: completion of a minimum of 9 credit points,
  - b) After 2 terms: completion of a minimum of 30 credit points,
  - c) After 4 terms: completion of a minimum of 60 credit points,
 Only the minimum requirements detailed in sections 24(2) are included here.
- (3) When a student does not satisfy the minimum requirements, or has not earned 168 credit points in the bachelor's degree program after 9 terms or 90 credit points in the master's degree program after 6 terms, s/he will receive written notification from the Examinations Office informing him/her that s/he is in danger of not completing his or her degree. At the same time s/he is offered the opportunity of meeting with a professor associated with the Center for Bioinformatics to discuss his/her continuing studies.
- (4) In the event that a student does not satisfy the minimum requirements expected of him or her for reasons attributable to him or her for the second time in succession, s/he forfeits the right to be admitted to the degree examination. The student also forfeits the right to admission to the degree examination in the event that s/he has not earned 168 credit points in the bachelor's degree program after 10 terms or 90 credit points in the master's degree program after 7 terms. Notification thereof is effected in writing by the board of examiners. The student is to be given an opportunity to state his/her position prior to the board of examiners passing its decision.

### **Section 14      Pursuing the Degree Program on a Part-time Basis**

- (1) Students or applicants can be enrolled in the degree program on a part-time basis when they are able to dedicate only a minimum of half or a maximum of 60% of their working time to their degree on account of employment, pregnancy, maternity leave, parental leave / raising or caring for one or more children, caring for a relative, or for another cogent reason.
- (2) Upon application the board of examiners may approve an exception to the exclusion provision pursuant to section 13(4) provided that the prerequisites for study on a part-time basis are satisfied. In this case the board may grant the student part-time status pursuant to the Saarland University Act.
- (3) A maximum of 8 terms in the bachelor's degree program and a maximum of 6 terms in the master's degree program may be completed on a part-time basis. In cases of hardship the board of examiners may approve an extension of part-time status. The term in which the bachelor's or master's thesis is completed is to be completed on a full-time basis.

- (4) The degrees (sections 20 and 27), and the type and extent of the individual coursework and achievements (cf. sections 17(2), 18, 24(2) and 25), do not differ from those of the bachelor's and master's degree programs completed on a full-time basis.
- (5) Pursuance of a degree program on a part-time basis does not legally entitle the student to special course offerings.
- (6) In the event that more than 60% of the work of the respective full-time program is completed during a term, this term shall be deemed to be a full-time term. The upper limit per term for pursuance of the bachelor's or master's degree program on a part-time basis is a load 18 credit points, or 12 instruction units per week. Application can be made in individual situations in which the upper limit has been slightly exceeded to determine whether this can be offset by a lower courseload during another term, e.g. within one academic year.
- (7) Application has to be made with the board of examiners for the subject-matter<sup>1</sup> approval of part-time terms two weeks before the end of the (re-)registration period of the respective term. Upon receiving approval from the board of examiners, the student is to make application with the registrar's office for matriculation or registration renewal with supplementary application for registration on a part-time basis.
- (8) The periods specified in section 13 are extended for study on a part-time basis as follows:
  - (a) one term for one or two part-time terms,
  - (b) two terms for three or four part-time terms,
  - (c) three terms for five or six part-time terms,
  - (d) four terms for seven or eight part-time terms.
- (9) Part-time students have to take part in an academic advisor meeting of the department at least once every two terms.

## II. Bachelor of Science Degree Program

### Section 15 Objectives of the Bachelor's Degree Program

- (1) In the course of completing the Bachelor of Science program, students obtain basic scientific training and the fundamental knowledge and skills in bioinformatics. Those completing the degree program should be able to understand bioscience problems and issues and their applications, engage in mathematical modeling, and apply scientific methods and bioinformatics findings to these problems. The bachelor's program is designed to prepare its graduates for their occupational work in bioinformatics and its applications.
- (2) The Bachelor of Science degree can thus be completed in two manners: by specializing in (a) Methodological Bioinformatics (CMB) or in (b) Applied Bioinformatics (BI). The abbreviations are in reference to the expressions commonly used in English: "Computational Molecular Biology" for bioinformatics emphasizing the development of methods and "Bioinformatics" for bioinformatics stressing the application of bioinformatics techniques.

### Section 16 Admission Prerequisites

Admission to the Bachelor of Science degree program is subject to the following: general school-leaving certificate (*allgemeine Hochschulreife*) granting general admission to all institutions of higher learning in Germany or a specialized school-leaving certificate (*fachgebundene Hochschulreife*) entitling the holder admission to certain degree programs or specialized institutions of higher learning, or an equivalent certificate by operation of the law or accreditation by a competent government agency pursuant to section 69

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<sup>1</sup> fachbezogen? weglassen? Was soll zum Ausdruck kommen?

of the Saarland University Act.

### **Section 17 Requirements of the Bachelor's Degree Program, Examination Sections of the Bachelor's Degree Examination**

- (1) The bachelor's degree program is comprised of modules or module elements of the following module categories:
- Lectures on mathematics fundamentals
  - Lectures on applied mathematics
  - Introductory lectures on computer science
  - Introductory lectures on chemistry and biosciences
  - Lectures on biosciences
  - Courses for the acquisition of key skills
  - Lectures on bioinformatics
  - Practical courses on computer science
  - Practical courses on biosciences
  - Practical courses on bioinformatics
  - Proseminars on bioinformatics topics
  - Bachelor's seminars on bioinformatics topics
- (2) Examination sections of the bachelor's degree examination leading to the degree of Bachelor of Science, specialization "Applied Bioinformatics (BI)":  
The examination consists of course-related graded assessments and the thesis, the bachelor's thesis. The course-related assessments comprise a minimum total of 168 credit points, of which 124 have to be graded. The following minimum number of credit points are to be obtained in the module categories indicated in section 17(1):
- 33 graded CPs (total) in the following three module categories:
    - (a) module category of lectures on mathematics fundamentals
    - (b) module category of lectures on applied mathematics
    - (c) module category of introductory lectures on computer science
 Of the above total, a minimum of 15 CPs have to be obtained in module category (c).
  - 15 graded CPs in the module category of introductory lectures on chemistry and biosciences
  - 29 graded CPs in the module category of lectures on biosciences
  - 1 ungraded CP in the module category of courses for the acquisition of key skills
  - 24 graded CPs in the module category of lectures on bioinformatics
  - 9 ungraded CPs in the module category of practical courses on computer science
  - 8 ungraded CPs in the module category of practical courses on biosciences
  - 9 graded CPs in the module category of practical courses on bioinformatics
  - 5 graded CPs in the module category of proseminars on bioinformatics topics
  - 9 graded CPs in the module category of bachelor's seminars on bioinformatics topics
- (3) Examination sections of the bachelor's degree examination leading to the degree of Bachelor of Science, specialization "Methodological Bioinformatics (CMB)":  
The examination consists of course-related graded assessments and the thesis, the bachelor's thesis. The course-related assessments comprise a minimum total of 168 credit points, of which 122 have to be graded. The following minimum number of credit points are to be obtained in the module categories indicated in section 17(1):
- 51 graded CPs (total) in the following three module categories:
    - (a) module category of lectures on mathematics fundamentals
    - (b) module category of lectures on applied mathematics
    - (c) module category of introductory lectures on computer science
 Of the above total, a minimum of 24 CPs have to be obtained in module category (c).
  - 15 graded CPs in the module category of introductory lectures on chemistry and biosciences
  - 15 graded CPs in the module category of lectures on biosciences
  - 1 ungraded CP in the module category of courses for the acquisition of key skills
  - 27 graded CPs in the module category of lectures on bioinformatics
  - 9 ungraded CPs in the module category of practical courses on computer science
  - 8 ungraded CPs in the module category of practical courses on biosciences

- 5 graded CPs in the module category of proseminars on bioinformatics topics
  - 9 graded CPs in the module category of bachelor's seminars on bioinformatics topics
- (4) Additional ungraded credit points can be obtained in the two specializations as follows:
- (a) heading a tutorial in the capacity of tutor (teaching assistant). 4 credit points are awarded in each case for attending to the teaching duties involved in heading a tutorial. Heading more than one tutorial is possible provided that the tutorials belong to different modules.
  - (b) Language courses in English (maximum of 6 credit points) for the purpose of preparing the student for the English course offerings in the master's degree program.
  - (c) It is recommended that students in the bachelor's degree program complete an internship in industry (in a bioinformatics, biotech or pharmaceutical company) of at least 8 weeks or a research residency of at least 8 weeks at another university or research institution, if possible abroad. 14 credit points are awarded for the industrial internship or research residency.
- (5) The bachelor's degree examination leading to the degree of Bachelor of Science has been successfully completed as soon as
- the student has obtained the requisite number of credit points specified for the degree program,
  - and completed the respective minimum number of credit points in the various module categories (cf. section 17(3) and 17(4),
  - the thesis, i.e. bachelor's thesis, has been evaluated as having been passed (cf. section 18),
  - and the student applies for the issuing of the bachelor's degree certificate.
- (6) The bachelor's degree examination has not been successfully completed when one or more examination modules or the bachelor's thesis have not been passed.

## **Section 18 Bachelor's Degree Thesis**

- (1) The bachelor's thesis is a supervised project. It is intended to demonstrate that the student is capable of solving a problem from the field of bioinformatics under supervision and document the results within a specified period of time. The bachelor's thesis can be drafted in German or English, or upon application, in another language.
- (2) The topic of the bachelor's thesis may be assigned by any of the following: professor, junior professor, junior research group leader of the Center for Bioinformatics, university lecturer (*Hochschuldozent*), professor without engagement or with emeritus status, honorary professor (*Honorarprofessor*), unsalaried lecturer (*Privatdozent*), or associate professor (*außerplanmäßiger Professor*) of the Center for Bioinformatics or a coopted professor. Professors, junior professors, junior research group leaders of the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science) who are not members of the Center for Bioinformatics, as well as members with a doctorate from among academic staff and members with a doctorate of the Max Planck Institute for Computer Science and Software Systems, the German Research Institute for Artificial Intelligence and the Fraunhofer Institute for Biomedical Engineering (IBMT) also assign bachelor's thesis topics, subject to the approval of the board of examiners. The board of examiners can vest its chairperson in advance with the power to appoint such individuals as authorized to assign bachelor's thesis topics.
- (3) If a student has successfully completed a bachelor's seminar, s/he must register his or her bachelor's thesis in the following term at the latest or attend a new bachelor's seminar. The bachelor's thesis, along with the topic and the time it was assigned, have to be registered with the Examinations Office. Students who don't register their bachelor's thesis in a timely manner and do not attend a new bachelor's seminar will be assigned a topic by the board of examiners. Prior to this the student is to be afforded the opportunity of being heard.
- (4) The completion period for the bachelor's thesis amounts to three months. In cases of substantiated hardship it can be extended by a suitable period, however a maximum of four weeks. The chairperson of the board of examiners determines whether extensions are to be granted. In the event that the completion of the bachelor's thesis or master's thesis has to be interrupted for longer than a week due to illness or other reasons for which the student is not accountable, the completion time is extended by this period. The student must immediately submit suitable proof (a medical certificate in cases of illness) to the Examinations Office. Application can be

made to the board of examiners so that statutory maternity leave, parental leave and fulfilling family obligations (raising a minor child and looking after relatives in need of care) can be taken into account. Any extension of the completion time shall have no impact on the awarding of credit points.

- (5) The bachelor's thesis is concluded by a colloquium in which the methods employed and results obtained are presented. The colloquium commission shall consist, at minimum, of one reviewer of the bachelor's thesis and an assessor. In the bachelor's thesis colloquium the students are to demonstrate that they are capable of defending their work by fielding critical questions. Students are afforded the opportunity to give a brief presentation of their work results followed by participating in a discussion round. The bachelor's thesis colloquium including the presentation lasts a minimum of 30 minutes, however a maximum of 45 minutes. The student's performance in the colloquium is included in the evaluation of the thesis.
- (6) The topic of the bachelor's thesis may be returned only once and only within the first 3 weeks upon registration of the thesis.
- (7) The bachelor's thesis is to be turned in to the Examinations Office in quadruplicate; a written record is to be made of the time of submission. In the event that the thesis is not submitted in a timely manner, it is given a grade of "fail". When submitting the thesis the student is to include a written certification of the following form: "Hiermit erkläre ich, dass ich die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe" (I hereby state that I prepared this thesis independently and I did not use any sources or aids not cited herein).
- (8) The student is to additionally submit an electronic version of his or her bachelor's thesis in a common file format and to grant the university the right to duplicate said work in data networks and publicly reproduce same (subject to conversion to another common file format as applicable). The student must certify in writing that the content of the electronic version is identical to the content of the printed version. Completion of the degree is subject to submission of the electronic version of the thesis. However, the board of examiners may release the student from the obligation of submitting an electronic version upon receipt of a well-founded petition.
- (9) The thesis shall be reviewed by two individuals who are authorized to assign bachelor's thesis topics pursuant to section 18(2) and evaluated with a grade as provided for in sections 10(1) and 10(2). In special cases, professors of other institutions of higher learning may be appointed reviewers. Of the two reviewers, the one reviewer shall be the individual who assigned the topic pursuant to section 18(2); the second reviewer shall be appointed by the chairperson of the board of examiners. One of the reviewers must be a professor, junior professor, university lecturer (*Hochschuldozent*), professor without engagement or with emeritus status, honorary professor (*Honorarprofessor*), unsalaried lecturer (*Privatdozent*) or associate professor (*außerplanmäßiger Professor*) of the Center for Bioinformatics or the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science). The written expert opinions are to be rendered and submitted within six weeks and must contain a grade as provided for in section 10(1).
- (10) In the event there is a discrepancy in the grade awarded by the examiners for the bachelor's thesis, the grade for the thesis shall be computed as the arithmetic mean of the grades proposed by the examiners. The mean value is to be rounded up to the next higher (intermediate) grade as applicable, to one decimal place. In the event that the proposed grades deviate more than 1.0 from another, or one of the reviewers awards a grade of "fail" for the bachelor's thesis, the board of examiners shall appoint a third reviewer to review the bachelor's thesis from among the professors of the Center for Bioinformatics, the Faculty of Medicine, the Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) or the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science). Once this reviewer has submitted his or her expert opinion, the board of examiners shall set the grade for the bachelor's thesis on the basis of the three expert opinions.
- (11) A thesis for which a final grade of "fail" has been awarded can be repeated once, subject to the assignment of a new topic. In so doing, a new topic will be assigned within one month upon conclusion of the evaluation of the first bachelor's thesis. However, returning the topic pursuant to section 18(6) is permissible only in the event that this option was not exercised for the first bachelor's thesis. Repeating the bachelor's thesis a second time is precluded; any failed attempts at other institutions of higher learning are to be included in this count.

### **Section 19      Registration for the Bachelor's Degree Examination**

- (1) Application for admission to the bachelor's degree examination takes place by virtue of registration for the first module in which a graded assessment (examination section) is completed. The bachelor's degree examination is to have been completed by the end of the modules of the sixth term of study.
- (2) Registration is to be effected in writing with the Examinations Office of the Center for Bioinformatics. The following is to be included with the registration:
  1. the student record book (*Studienbuch*) or equivalent documents or credentials,
  2. a statement to the effect as to whether the student has failed a preliminary Diplom examination (*Diplomvorprüfung*), a bachelor's degree examination, a Diplom degree examination (*Diplomprüfung*) or a master's degree examination in bioinformatics at an academic institution of higher learning in the Federal Republic of Germany or whether he or she is currently involved in a pending admission or examination proceeding.
- (3) The board of examiners, or the chairperson on its behalf, determines whether admission is to be granted.
- (4) Admission may be not refused unless
  1. proof of proper matriculation in the respective bachelor's degree program or in a related degree program could not be furnished.
  2. the admission requirements pursuant to section 16 have not been satisfied or
  3. the documents or credentials are incomplete or
  4. the student has definitively failed the preliminary Diplom examination (*Diplomvorprüfung*), the bachelor's degree examination, the Diplom degree examination (*Diplomprüfung*) or the master's degree examination in bioinformatics at another academic institution of higher learning in the Federal Republic of Germany.
- (5) The Examinations Office opens an examination file for each student in which the registrations and results of all assessments are noted.

### **Section 20      Bachelor's Degree Certificate / Diploma and Degree**

- (1) A diploma and certificate are to be issued on the successfully completed bachelor's degree examination within four weeks, the diploma / certificate to contain the details as specified in sections 10(4), 10(5) and 10(6). The diploma is to be signed by the spokesperson of the Center for Bioinformatics and the chairperson of the board of examiners. It is to contain the date on which the last examination or section thereof was completed, and the date on which the diploma was signed. The certificate is to be signed by the chairperson of the board of examiners. It is to list the coursework successfully completed; the certificate also constitutes the transcript of records.
- (2) With the diploma the academic degree of Bachelor of Science (B.Sc.) is conferred upon the student. With the bachelor's degree certificate the graduate is issued a diploma supplement detailing the objectives, structure and content of the degree program.
- (3) In the event that the bachelor's degree examination is not successfully completed, the chairperson of the board of examiners will issue the student written notification thereof including legal remedies available to him or her.

## **III. Master of Science Degree Program**

### **Section 21      Objectives of the Master's Degree Program**

The goal of the ensuing, research-oriented master's degree program is to supplement and build on the preceding bachelor's degree program by preparing students for demanding research and development work in bioinformatics at the national and international level.

### **Section 22      Entrance Requirements**

- (1) Those who are entitled to participate in the procedure for the allocation of study places in the ensuing master's degree program are those who
  1. are able to furnish a certificate on the successful completion of the bachelor's degree examination in

- bioinformatics or a similar degree program at an institution of higher learning in Germany or comparable credentials or
2. are able to furnish evidence of an equivalent degree from a foreign institution of higher learning or other equivalent credentials. The board of examiners shall determine the equivalency of the credentials presented.
- (2) Applicants who are not yet in possession of their bachelor's degree certificate may make application for preliminary admission entitling them to take part in the examinations or sections thereof of the master's degree program. In this case, the bachelor's degree certificate is to be subsequently submitted within three months.

### **Section 23 Admissions Prerequisites**

- (1) In the event that the number of applications exceeds the number of available study places, those applicants will be selected who exhibit a particular aptitude or suitability for the degree program. Criteria for determining special aptitude:
1. the academic achievements exhibited by the student in his or her career to date, in particular in Methodological Bioinformatics
  2. a special interest on the part of the student as demonstrated by a dossier or qualifying expert opinion
  3. the student's relevant experience abroad and practical experience
  4. command of English at an advanced level
- These criteria are used to gauge applicant's aptitude and suitability as compared to the profile and requirements of the selected master's degree program.
- (2) The board of examiners shall make a determination as to whether the admissions requirements are satisfied. It checks the relevance of the admissions criteria on a regular basis.

### **Section 24 Requirements of the Master's Degree Program, Examination Sections of the Master's Degree Examination**

- (1) The master's degree program is comprised of modules or module elements of the following module categories:
- Core lectures on computer science
  - Advanced lectures on biosciences
  - Advanced lectures on bioinformatics
  - Courses for the acquisition of key skills
  - Advanced practical courses on biosciences
  - Seminars on bioinformatics topics
  - Master's seminars on bioinformatics topics
- (2) The master's degree examination consists of several course-related assessments or examination sections and an academic or research thesis, the master's thesis. The course-related assessments comprise a minimum total of 90 credit points, of which 68 have to be graded. Graded assessments or examination sections which have been included in the bachelor's degree examination will not be counted towards the master's degree examination. The following minimum number of credit points are to be obtained in the module categories indicated in section 24(1):
- 18 ungraded CPs from the module category of core lectures on computer science
  - 12 graded CPs from the module category of advanced lectures on biosciences
  - 19 graded CPs from the module category of advanced lectures on bioinformatics
  - 8 ungraded CPs from the module category of advanced practical courses on biosciences
  - 7 graded CPs from the module category of seminars on bioinformatics topics
  - 12 graded CPs from the module category of master's seminars on bioinformatics topics

Additional credit points can be earned by heading tutorials in the capacity of tutor (teaching assistant). 4 ungraded credit points are awarded in each case for attending to the teaching duties involved in heading a tutorial. Heading more than one tutorial is possible provided that the tutorials belong to different modules.

- (3) Credit points of the master's degree program can also be earned while the student is enrolled in the bachelor's degree program. The regulations pertaining to the admission to the master's degree program are not affected hereby.
- (4) The master's degree examination has been successfully completed as soon as
  - the student has obtained the requisite number of credit points specified for the degree program,
  - and completed the respective minimum number of credit points in the various module categories (cf. section 24(2)),
  - the thesis, i.e. master's thesis, has been evaluated as having been passed (cf. section 25), and
  - and the student applies for the issuing of the master's degree certificate.
- (5) The master's degree examination has not been successfully completed when one or more examination modules or the bachelor's thesis have not been passed.

### **Section 25      Master's Degree Thesis**

- (1) The master's thesis is a supervised academic or research project. It is intended to demonstrate that the student is capable of solving a problem from the field of bioinformatics applying scientific methods within a specified period of time and to document the results in a comprehensible manner. The master's thesis can be drafted in German or English, or upon application, in another language. Essential parts of the master's thesis may be based on a publication presented at a peer-reviewed academic or scientific conference or a publication in a peer-reviewed academic or scientific journal.
- (2) The topic of the master's thesis may be assigned by any of the following: professor, junior professor, junior research group leader of the Center for Bioinformatics, university lecturer (*Hochschuldozent*), professor without engagement or with emeritus status, honorary professor (*Honorarprofessor*), unsalaried lecturer (*Privatdozent*), or associate professor (*außerplanmäßiger Professor*) of the Center for Bioinformatics or a coopted professor. Professors, junior professors, junior research group leaders of the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science) who are not members of the Center for Bioinformatics as well as members from among academic staff with a doctorate as well as members with a doctorate of the Max Planck Institute for Computer Science and Software Systems, the German Research Institute for Artificial Intelligence and the Fraunhofer Institute for Biomedical Engineering (IBMT) may also issue a topic for a master's thesis, subject to the approval of the board of examiners. The board of examiners can vest its chairperson in advance with the power to appoint such individuals as authorized to assign master's thesis topics.
- (3) If a student has successfully completed a master's seminar, s/he must register his or her master's thesis in the following term at the latest or attend a new master's seminar. The master's thesis, along with the topic and the time it was assigned, have to be registered with the Examinations Office. Students who don't register their master's thesis in a timely manner and do not attend a new master's seminar will be assigned a topic by the board of examiners. Prior to this the student is to be afforded the opportunity of being heard.
- (4) The completion period for the master's thesis amounts to six months. In cases of substantiated hardship it can be extended by a suitable period, however a maximum of six weeks. The chairperson of the board of examiners determines whether extensions are to be granted. In the event that the completion of the master's thesis has to be interrupted for longer than a week due to illness or other reasons for which the student is not accountable, the completion time is extended by this period. The student must immediately submit suitable proof (a medical certificate in cases of illness) to the Examinations Office. Application can be made to the board of examiners so that statutory maternity leave, parental leave and fulfilling family obligations (raising a minor child and looking after relatives in need of care) can be taken into account. Any extension of the completion time shall have to impact on the awarding of credit points.
- (5) The master's thesis is concluded by a colloquium in which the methods employed and results obtained are presented. The colloquium commission shall consist, at minimum, of one reviewer of the master's thesis and an assessor. In the master's thesis colloquium students are to demonstrate that they are capable of defending their work by fielding critical questions. Students are afforded the opportunity to give a brief presentation of



their work results followed by participating in a discussion round. The master's thesis colloquium including the presentation lasts a minimum of 30 minutes, however a maximum of 45 minutes. The student's performance in the colloquium is included in the evaluation of the thesis.

- (6) The topic of the master's thesis may be returned only once and only within the first five weeks upon registration of the thesis.
- (7) The master's thesis is to be turned in to the Examinations Office in quadruplicate; a written record is to be made of the time of submission. In the event that the thesis is not submitted in a timely manner, it is given a grade of "fail". When submitting the thesis the student is to include a written certification of the following form: "Hiermit erkläre ich, dass ich die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe" (I hereby state that I prepared this thesis independently and I did not use any sources or aids not cited herein).
- (8) The student is to additionally submit an electronic version of his or her master's thesis in a common file format and to grant the university the right to duplicate said work in data networks and publicly reproduce same (subject to conversion to another common file format as applicable). The student must certify in writing that the content of the electronic version is identical to the content of the printed version. Completion of the degree is subject to submission of the electronic version of the thesis as provided for in section 25(7). However, the board of examiners may release the student from the obligation of submitting an electronic version upon receipt of a well-founded petition.
- (9) The thesis shall be reviewed by two individuals who are authorized to assign master's thesis topics pursuant to section 18(2) and evaluated with a grade as provided for in sections 10(1) and 10(2). In special cases the following individuals may also be appointed reviewers: professors of other institutions of higher learning and members from among academic staff with a doctorate as well as members with a doctorate of the Max Planck Institute for Computer Science and Software Systems, the German Research Institute for Artificial Intelligence and the Fraunhofer Institute for Biomedical Engineering (IBMT). Of the two reviewers, the one reviewer shall be the individual who assigned the topic pursuant to section 25(2); the second reviewer shall be appointed by the chairperson of the board of examiners. One of the reviewers must be a professor, junior professor, university lecturer (*Hochschuldozent*), professor without engagement or with emeritus status, honorary professor (*Honorarprofessor*), unsalaried lecturer (*Privatdozent*) or associate professor (*außerplanmäßiger Professor*) of the Center for Bioinformatics or the Faculty of Medicine, Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) and the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science). The written expert opinions are to be rendered and submitted within two months and must contain a grade as provided for in section 10(1).
- (10) In the event there is a discrepancy in the grade awarded by the examiners for the master's thesis, the grade for the thesis shall be computed as the arithmetic mean of the grades proposed by the examiners. The mean value is to be rounded up to the next higher (intermediate) grade as applicable, to one decimal place. In the event that the proposed grades deviate more than 1.0 from another, or one of the reviewers awards a grade of "fail" for the master's thesis, the board of examiners shall appoint a third reviewer to review the master's thesis from among the professors of the Center for Bioinformatics, the Faculty of Medicine, the Faculty of Natural Sciences and Technology I (Mathematics and Computer Science) or the Faculty of Natural Sciences and Technology III (Chemistry, Pharmacy, Biosciences and Material Science). Once this reviewer has submitted his or her expert opinion, the board of examiners shall set the grade for the master's thesis on the basis of the three expert opinions.
- (11) A thesis for which a final grade of "fail" has been awarded can be repeated once, subject to the assignment of a new topic. In so doing, a new topic will be assigned within three months upon conclusion of the evaluation of the first master's thesis. However, returning the topic pursuant to section 25(6) is permissible only in the event that this option was not exercised for the first master's thesis. Repeating the master's thesis a second time is precluded; any failed attempts at other institutions of higher learning are to be included in this count.

## **Section 26 Registration for the Master's Degree Examination**

- (1) Application for admission to the master's degree examination takes place by virtue of registration for the graded assessment of the first module element for which the student would like to complete an examination

section. This registration is to generally be done in the first term of study.

- (2) Registration is to be effected in writing with the Examinations Office (Center for Bioinformatics). The following is to be included with the registration:
  - (a) the student record book (*Studienbuch*) or equivalent documents or credentials,
  - (b) a statement to the effect as to whether the student has failed a preliminary Diplom examination (*Diplomvorprüfung*), a bachelor's degree examination, a Diplom degree examination (*Diplomprüfung*) or a master's degree examination in bioinformatics at a university or equivalent institution of higher learning in the Federal Republic of Germany or whether he or she is currently involved in a pending admission or examination proceeding.
- (3) The board of examiners, or the chairperson on its behalf, determines whether admission is to be granted.
- (4) Admission may be not refused unless
  1. the entrance and admission requirements pursuant to sections 22 and 23 have not been satisfied or
  2. proof of proper matriculation in the respective master's<sup>2</sup> degree program or in a related degree program could not be furnished, or
  3. the documents are incomplete or
  4. the student has definitively failed the bachelor's degree examination, the preliminary Diplom examination (*Diplomvorprüfung*), the Diplom degree examination (*Diplomprüfung*) or the master's degree examination in bioinformatics at a university or other equivalent institution of higher learning in the Federal Republic of Germany.
- (5) The Examinations Office of the Center for Bioinformatics opens an examination file for each student in which the registrations and results of all assessments are noted, provided that this has not already been done for the bachelor's degree examination.

#### **Section 27      Master's Degree Certificate / Diploma and Degree**

- (1) A diploma and certificate are to be issued on the successfully completed master's degree examination within four weeks, the diploma / certificate to contain the details as specified in sections 10(4), 10(5) and 10(6). The diploma is to be signed by the spokesperson of the Center for Bioinformatics and the chairperson of the board of examiners. It is to contain the date on which the last examination or section thereof was completed, and the date on which the diploma was signed. The certificate is to be signed by the chairperson of the board of examiners. It is to list the coursework successfully completed; the certificate also constitutes the transcript of records.
- (2) With the diploma the academic degree of Master of Science (M.Sc.) is conferred upon the student. With the master's degree certificate the graduate is issued a diploma supplement detailing the objectives, structure and content of the degree program.
- (3) In the event that the master's degree examination is not successfully completed, the chairperson of the board of examiners will issue the student written notification thereof including legal remedies available to him or her.
- (4) If the student so requests, a certificate can be issued stating when the examination procedure was concluded.

#### **IV.      Concluding Provisions**

#### **Section 28      Withdrawal of a Degree/Invalidation of an Examination**

- (1) In the event that a student has cheated in an examination or section thereof and if this does not become

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<sup>2</sup> Im Deutschen steht "Bachelor-Studiengang ". Bitte prüfen.

known until after the certificate has been issued, the board of examiners can retroactively declare the examination to have been failed either in whole or in part.

- (2) In the event that the prerequisites for admission to an examination have not been satisfied without any intention on the part of the student to conceal this fact or otherwise deceive the board of examiners, and in the event that this circumstance does not become known until after the certificate has been issued, this shortcoming shall be remedied by virtue of the student having successfully completed the examination. In the event that the student has willfully committed an act of deception, in so doing gaining admission to the examination, the board of examiners shall make a determination on the basis of the Saarland Administrative Procedure Act (*Saarländisches Verwaltungsverfahrensgesetz*).
- (3) The student is to be given an opportunity to state his/her position within one month prior to the board of examiners passing its decision.
- (4) The incorrect examination certificate is to be withdrawn and corrected as applicable. A decision pursuant to section 28(1) and 28(2) shall become statute-barred upon the elapse of five years from the date of the examination certificate.

### **Section 29      Inspection of Examination Records, Legal Remedies**

- (1) The student is to be granted the right to view the examination records pertaining to him or her within one year of concluding the examination procedure, subject to him/her submitting a petition to this effect. The chairperson of the board of examiners shall designate the time and place for viewing. Upon submitting a request, the student is to be informed of the partial results of the bachelor's or master's degree examination prior to conclusion of the examination procedure.
- (2) The procedural decisions passed by an examiner or the chairperson of the board of examiners are subject to review upon petition to this effect being submitted by the student.

### **Section 30      Entry into Force and Provisions Pertaining to the Transition Period**

- (1) These Examination Regulations for the Bachelor of Science and Master of Science Degree Programs in Bioinformatics shall enter into force upon being published in the Official Bulletin of Institutions of Higher Learning of Saarland ("*Dienstblatt der Hochschulen des Saarlandes*").
- (2) Students who were enrolled in the preceding bachelor's or master's degree program of bioinformatics at the time these regulations entered into force may pursue their studies through the end of their standard period of study in addition to a transition period of two years pursuant to the preceding examination regulations and acquire the bachelor's degree (provided that they were enrolled in the preceding bachelor's degree program) or master's degree (provided that they were enrolled in the preceding master's degree program) in bioinformatics, however until 31 December 2009 at the earliest.
- (3) The board of examiners will determine equivalent substitute examinations and sections thereof pursuant to these Examination Regulations for the Bachelor of Science and Master of Science Degree Program for examinations and sections thereof completed pursuant to the Examination Regulations for the Bachelor of Science and Master of Science Degree Program of 19 February 2004 upon petition to this effect being submitted.