

Care was taken to ensure the text of these regulations is accurate and up-to-date; the present version may nevertheless contain errors. The version published in the official gazette of the Bavarian State Ministry of Education, Science and the Arts, or available online at

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**Please note the effective dates of the amendments.**

**Examination and Study Regulations for the master's programme  
Computer Science  
at the University of Bayreuth  
(version date: 20 June 2012)  
here the amended version  
of 20 March 2014**

Article 13 para 1 sentence 2 in conjunction with Article 58 para 1 sentence 1 and Article 61 para 2 sentence 1 of the Bavarian Higher Education Act (*BayHSchG*) forms the framework for the following Examination Regulations issued by the University of Bayreuth.

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<sup>\*)</sup> Any gender-specific language used in these regulations applies to both men and women.  
Changes will not be made to the wording of the individual regulations.

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## § 1

### Purpose of the master's examination

<sup>1</sup>The extent of the candidate's competencies in using appropriate methods and systems to solve complex problems in the field of computer science, in addition to his or her curriculum-related expertise as described in the present regulations, are determined by the master's examination, conducted over the course of the master's programme Computer Science.

<sup>2</sup>Similarly, it is ascertained whether the candidate has a sufficient overview of how subjects in the field are related to enable him or her to conduct further independent scientific work. <sup>3</sup>On the basis of the successful completion of the master's examination, the University awards, through the Faculty of Mathematics, Physics & Computer Science, the academic degree of Master of Science (abbreviated: M.Sc.).

## § 2

### Admission to the programme; qualification

- (1) Admission prerequisites for the master's programme are as follows:
1. a bachelor's degree or an equivalent degree;
  2. a study focus in computer science in the university degree required in no. 1, totalling at least 80 credit points, equivalent to the computer science portion of the bachelor's programme *Angewandte Informatik* [Applied Computer Science] at the University of Bayreuth, or an equivalent study focus;
  3. a study focus in mathematics in the university degree required in no. 1, totalling at least 25 credit points, equivalent to the mathematics portion of the bachelor's programme *Angewandte Informatik* at the University of Bayreuth, or an equivalent study focus;
  4. evidence of the required specialist German or English language skills certified by UNiCert II, 250 TOEFL points, 95 points on the internet-based TOEFL, or a comparable examination.
- (2) In cases where the study and examination achievements in some areas are not equivalent to the content and scope of the requirements described in para 1 numbers 1 and 2, applicants may be admitted on the condition that within one year they complete coursework and examinations in these areas from the bachelor's programme *Angewandte Informatik* at the University of Bayreuth, amounting to up to 60 credits, in addition to the work required in the master's programme;

otherwise, the admission requirements to the programme will not be considered fulfilled. <sup>2</sup>In such cases, the examination and study regulations for the bachelor's programme *Angewandte Informatik* (as amended) shall apply.

- (3) For admission to the master's programme, the sum of the credits from additional courses, less the credits awarded for all competences according to § 8, may not exceed 60 credits.
- (4) Such decisions as described in paragraphs 2 and 3 are to be made by the board of examiners (§ 4).
- (5) <sup>1</sup>If the degree certificate is not yet available, confirmation containing the individual grades for all examinations and courses up registration deadline must be submitted.  
<sup>2</sup>Credit for such coursework must amount to a total of at least 150 ECTS points.  
<sup>3</sup>Applicants who fulfil the requirements of sentences 2 and 3 are to be enrolled on the condition that they submit the relevant degree certificate by the end of their second semester of study.

### § 3

#### **Structure of full-time and part-time study and the master's examination; standard period of study**

- (1) The master's programme Computer Science is divided into the following areas:
  - A) The area *Computer Science* comprises modules totalling between 30 and 45 credit points. The Computer Science modules are to be offered by at least two different module coordinators. Regularly offered Computer Science modules are listed in the annex. Possible combinations of Computer Science modules are described in the current module handbook. The board of examiners may approve additional Computer Science modules upon request.
  - B) The area *Projects* comprises modules totalling between 30 and 32 credit points. The Project modules must be offered by at least two different module coordinators for the selected Computer Science modules and must be in different topic areas.

At least one large master's project and at most one large master's seminar must be selected. Possible combinations of Project modules with Computer Science modules are described in the current Project module announcements.

- C) The area *Application* comprises modules totalling between 5 and 25 credit points. The Application area includes multidisciplinary consolidation in applied mathematics, physics, biochemistry, geosciences, law, economics, media studies or engineering. Possible combinations of the modules are described in the current module handbook of the application subjects. Content-coordinated options can be found in the current application models provided by the board of examiners. The board of examiners may approve additional application subjects upon request.
- D) The area *Studium Generale* comprises modules with a total of 5 to 10 credits from the Computer Centre, the Language Centre and the *Virtuelle Hochschule Bayern* (vhb). Possible combinations of the modules are described in the current module handbook.
- E) The area *Master's Thesis* comprises one module totalling 30 credit points. The Master's Thesis module consists of a master's thesis and the corresponding colloquium.

(2) <sup>1</sup>Model curricula are provided to serve as a guide when selecting modules. <sup>2</sup>Consultation with the programme advisor is recommended (§26 para 2) before deviating from the model course schedules.

(3) <sup>1</sup>A change of Application area is permissible if the student submits a written request to the Examinations Office. <sup>2</sup>A second change is not possible. <sup>3</sup>If at the time of the change examinations have not been passed in the previous application subject, those examinations need not be repeated after changing the application subject. <sup>4</sup>A change of the application subject does not lead to an extension of the periods and deadlines given in the present regulations.

(3) <sup>1</sup>The programme of study can be completed as a full-time or part-time student. <sup>2</sup>Upon registration, the applicant must decide whether he or she wants to complete the programme of study as a full-time or part-time student. <sup>3</sup>Changing from full-time to part-time study or from part-time to full-time study is only possible within the enrolment period of each new semester. <sup>4</sup>The programme comprises four semesters of full-time study including the master's thesis (standard period of study). <sup>5</sup>The programme comprises eight semesters of part-time study including the master's thesis. <sup>6</sup>In part-time study, a maximum of 20 credit points may be earned each semester.

<sup>7</sup>Unless special provisions are made in the present regulations, the deadlines specified for full-time study also apply to part-time study.

- (4) A total of 120 credit points are to be earned.
- (5) New students can enter the programme in the winter semester or the summer semester.

#### § 4 Board of examiners

- (1) <sup>1</sup>A board of examiners shall be formed to make the necessary decisions with regard to the admission to the master's programme and the organizational execution of the master's examination. <sup>2</sup>The board of examiners shall administer the examination proceedings in accordance with the present regulations and make all decisions with the exception of the examinations and the assessment thereof. <sup>3</sup>It is made up of four members with voting rights from among the professors at the Department of Computer Science (Article 2 para 1 sentence 1 number 1 BayHSchPG) in addition to one student representative and one representative of the academic and artistic staff in an advisory capacity. <sup>4</sup>The members of the board of examiners are elected by the Faculty of Mathematics, Physics & Computer Science's faculty council for a three-year term. <sup>5</sup>The board of examiners shall elect a chair and a deputy chair from among the professors on the board of examiners.
- (2) <sup>1</sup>The board of examiners constitutes a quorum if the majority of members are present and entitled to vote after an invitation had been sent to all members at least three days prior to the meeting. <sup>2</sup>The decisions taken by the board of examiners in its meetings are to be made on the basis of majority vote. <sup>3</sup>Vote abstention, secret voting, and proxy voting are prohibited. <sup>4</sup>If votes are equally divided among its members, the chair's vote shall be decisive.
- (3) <sup>1</sup>The chair shall ensure that the requirements of these regulations are fulfilled. <sup>2</sup>He or she shall convene the meetings of the board of examiners and shall act as chair of its proceedings and decisions. <sup>3</sup>With regard to matters that cannot be postponed, he or she is authorized to make decisions on behalf of the board of examiners. <sup>4</sup>He or she must promptly inform the other members of any such decision - at the next meeting at latest. <sup>5</sup>In addition, unless otherwise provided by the present regulations, the board of examiners can transfer (until revoked) the right to perform other duties of the board to the chair.

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<sup>6</sup>The chair may delegate tasks.

- (4) <sup>1</sup>The board of examiners shall regularly report to the faculty council concerning updates to examination schedules and study periods and may make suggestions for reforming the present regulations. <sup>2</sup>The board of examiners is responsible for drawing up the module handbook.
- (5) <sup>1</sup>Any notices the board of examiners issues under the terms of the present regulations are to be published together with a rationale and information concerning legal remedies available. <sup>2</sup>Notices of appeal shall be issued by the president in consultation with the board of examiners.

## § 5

### Examiners and co-examiners

- (1) <sup>1</sup>Any person who is authorized to administer examinations at institutions of higher education according to the Bavarian Higher Education Act (*BayHSchG*) and the *HSchPrüferV*, as amended, may serve as examiner. <sup>2</sup>Any member of the University of Bayreuth who is a graduate of an equivalent or comparable programme of study may serve as co-examiner.
- (2) <sup>1</sup>If a member of the University of Bayreuth who is an authorized examiner leaves the University, he or she may remain an examiner for a reasonable period. <sup>2</sup>Authorization to administer examinations shall generally remain valid for up to three years.
- (3) <sup>1</sup>Unless otherwise decided by the chair of examiners, the relevant instructor shall also serve as examiner. <sup>2</sup>If that instructor is not authorized to administer examinations as laid out in sentence 1, the chair of examiners shall appoint an examiner at the beginning of the semester in which the examination is to be held.

## § 6

### Disqualification due to personal involvement; confidentiality

- (1) Disqualification from consultation and voting on the board of examiners or from other activities relating to examinations on the basis of personal involvement is governed by Article 41 para 2 of the *BayHSchG*.

- (2) The non-disclosure obligation that holds for members of the board of examiners, as well as examiners, co-examiners, and anyone else involved in the examination process is governed by Article 18 para 3 of the *BayHSchG*.

## § 7

### Admission to the examinations

<sup>1</sup>Students who are enrolled in the master's programme Computer Science are considered *ipso facto* to be admitted to the examinations. <sup>2</sup>Requests in connection with § 8 are to be promptly submitted to the board of examiners following enrolment.

## § 8

### Credit transfer for competencies

- (1) Awarding credit for competencies (learning outcomes) is governed by Article 63 para 1 and 3 of the Bavarian Higher Education Act (*BayHSchG*).
- (2) Credit transfer for competencies not acquired at an institution of higher education is not permitted.
- (3) <sup>1</sup>If credits are awarded for competencies, the grades are to be carried over and included when calculating the final grade, as long as the grading systems are analogous. <sup>2</sup>If the grading systems are not analogous, the remark "*bestanden*" ["passed"] shall appear in place of a grade; in this case, the course shall not be taken into account when calculating the final grade. <sup>3</sup>Transferred credits may be identified as such on the certificate. <sup>4</sup>The board of examiners in consultation with the relevant representative from the subject area shall decide whether the requirements have been met for credit transfer. <sup>5</sup>If credit transfer is denied, the person concerned can appeal the decision by submitting a request for the University Board to review the decision within four weeks of notification of denial. <sup>6</sup>The University Board shall provide the board of examiners with a recommendation on how to proceed with the request.
- (4) Credit transfer request are to be submitted to the board of examiners as soon as possible following enrolment and in any event prior to the commencement of the examination proceedings in the relevant module.



## § 9

### Times for holding examinations; announcing examination times and examiners

- (1) <sup>1</sup>Written and oral examinations are to be held once a semester. <sup>2</sup>The examinations are generally held from the last week of lectures to the beginning of the following semester. The board of examiners shall publish examination schedules university-wide. <sup>3</sup>An additional examination time may be scheduled for the beginning of the following semester.
- (2) <sup>1</sup>The course-related examination dates, form of examination, the precise duration of each examination, and the resources that can be used during the examination are to be determined by the examiner at the start of the course and published university-wide. <sup>2</sup>A change of examiner on short notice shall only take place if there are urgent grounds for doing so.
- (3) Students must register for examinations by the published deadline, according to the process determined by the board of examiners.

## § 10

### Elements of the examination

- (1) <sup>1</sup>The master's examination comprises the module examinations listed in the annex. <sup>2</sup>The examinations are based on individual modules or related modules of up to 20 credit points.
- (2) <sup>1</sup>The examinations serve to demonstrate that the examinee has satisfied the desired learning outcomes of the individual modules. <sup>2</sup>They are based on the desired learning outcomes of the relevant courses.

## § 11

### Form of examinations

- (1) <sup>1</sup>Examinations are carried out in the form of written examinations, oral examinations, seminars, or written assignments. <sup>2</sup>The examinations can be conducted in either German or English, generally depending on the language of the course.

- (2) <sup>1</sup>Written examinations are to be between one and four hours in duration. <sup>2</sup>A written record of the examination is to be made. <sup>3</sup>The invigilator shall confirm the accuracy of the record by providing his or her signature. <sup>4</sup>The examination record sheet is to include all aspects of the examination that are relevant to determining the grade.
- (3) <sup>1</sup>If a candidate arrives to the examination late, he or she shall not be given additional time to finish the examination. <sup>2</sup>Candidates may leave the room during an examination if permission is granted by invigilator. <sup>3</sup>The time and duration of absence are to be noted on the question paper.
- (4) <sup>1</sup>Written examinations are generally graded by the relevant examiner. <sup>2</sup>Grades for the written examinations are determined in accordance with § 16. <sup>3</sup>If an examinee receives the grade "*nicht ausreichend*" ["unsatisfactory"] on a written examination, a second examiner shall also provide an assessment. <sup>4</sup>If different grades are awarded by different examiners, they shall agree on one of the grades given in §16. <sup>5</sup>If no agreement is reached, the board of examiners is to make the decision. <sup>6</sup>In special cases, the chair of examiners may appoint an additional examiner. <sup>7</sup>An assessment of each written examination shall be provided no later than six weeks after the examination.
- (5) <sup>1</sup>Grades for written examinations shall be announced in accordance with the process established by the board of examiners. <sup>2</sup>Notifications will not be sent individually. <sup>2</sup>Students are required to familiarize themselves, independently and in a timely manner, with the terms of the present examination regulations pertaining to examination results and repeating examinations.
- (6) <sup>1</sup>Oral examinations are to be held over a period of 20 to 60 minutes, depending on the requirements of the particular course. <sup>2</sup>Oral examinations are to be administered by two examiners or one examiner and one co-examiner. <sup>3</sup>One examiner or the co-examiner shall complete an examination record sheet that includes the following: location, start time, and duration of the examination; examination subject-matter and results (grade); the names of the two examiners or of the examiner and co-examiner; and any noteworthy incidents. <sup>4</sup>The record sheet is to be signed by the two examiners or by the examiner and co-examiner. <sup>5</sup>The examiners are to determine the grades for performance in the oral examinations under the terms of § 16.
- (7) <sup>1</sup>In the case of graded seminars, the grade for the talk and the corresponding report are to be assessed by an examiner. <sup>2</sup>A record sheet is to be filled out for each graded presentation including the candidate's name, the names of the examiner and co-examiner, the place, time, duration, subject matter, grade, and any noteworthy

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incidents during the presentation. <sup>3</sup>The examination record sheet is to be signed by the examiner. <sup>4</sup>The overall grade for a seminar (presentation and report) is determined in accordance with § 16.

- (8) <sup>1</sup>Written homework assignments (e.g. exercises and reports) are assigned and completed parallel to the modules and are to be graded by the examiner using a point system. <sup>2</sup>The requirements (e.g. minimum passing grade relative to best possible grade) are announced in the module handbook or by the examiner at the start of each course.
- (9) <sup>1</sup>If the audience for an oral examination must be limited due to room capacity, those students who wish to take the same examination within the next two semesters are to be given preference. <sup>2</sup>Space permitting, seminar talks are to be open to all members of the University. <sup>3</sup>The examination can be conducted without an audience if so requested by the candidate or the examiner. <sup>4</sup>Discussion and announcement of the examination results shall not be conducted in public.

## § 12

### Master's thesis

- (1) <sup>1</sup>The candidate's master's thesis should demonstrate that he or she is able to utilize relevant resources and adequately address and write about current issues in the field using scientific methods. <sup>2</sup>The topic is to be in a field of computer science.
- (2) <sup>1</sup>Topics for master's theses are generally to be assigned and supervised by two examiners (under the terms of § 5), one of whom must belong to the Department of Computer Science in the Faculty of Mathematics, Physics & Computer Science. <sup>2</sup>The topic of the master's thesis must be confirmed by the chair of examiners prior to assignment of the topic. <sup>3</sup>The assigned topic is to be refused if the criteria given in paragraph 1 are not met. <sup>4</sup>Record is to be made of the date on which the topic was assigned.
- (3) <sup>1</sup>The master's thesis consists of a workload of up to 900 hours. <sup>2</sup>The master's thesis is to be submitted no later than six months after the topic was assigned in the case of full-time study or 12 months in the case of part-time study. <sup>3</sup>The chair of examiners may extend this deadline by up to eight weeks at the request of the supervisor if there are exceptional grounds for doing so. <sup>4</sup>If the candidate demonstrates via a medical certificate that he or she was unable to work on the thesis, the deadline shall no longer apply.

<sup>5</sup>Theses that are not submitted by the stated deadline are to be graded as "*nicht ausreichend*" ["unsatisfactory"].

- (4) <sup>1</sup>The master's thesis may be written in German or English. <sup>2</sup>The master's thesis shall contain a statement at the end in which the author confirms that he or she wrote the thesis independently and did not make use of any sources or materials that are not cited in the thesis. It shall also be confirmed that the thesis had never before been submitted toward fulfilment of an academic degree. <sup>3</sup>A synopsis of the master's thesis is to be included. <sup>4</sup>The title and synopsis must be written in German and English.
- (5) <sup>1</sup>Three copies of the thesis are to be submitted to the Examinations Office by the deadline given. <sup>2</sup>Record is to be made of the date on which the thesis was submitted.
- (6) <sup>1</sup>The master's thesis is to be typewritten, bound, and paginated. <sup>2</sup>The thesis must contain a table of contents and a bibliography. <sup>3</sup>An additional copy is to be submitted electronically.
- (7) <sup>1</sup>With the board of examiners' approval, the candidate is entitled to return the topic once within the first four weeks after having been assigned the topic. <sup>2</sup>The supervisor shall submit a statement. <sup>3</sup>Paragraphs 1 to 6 also apply when assigning and working on a new topic.
- (8) <sup>1</sup>The Examinations Office shall forward the thesis to the relevant examiner for assessment. <sup>2</sup>The two examiners shall agree on a grade given in § 16 and submit a recommendation to the board of examiners concerning whether the thesis is to be accepted or rejected. <sup>3</sup>The grades shall be made available no later than two months after submission of the thesis. <sup>4</sup>If no agreement is reached, the board of examiners is to make the decision. <sup>5</sup>In special cases, the chair of examiners may appoint an additional examiner. <sup>6</sup>If the master's thesis is deemed "*nicht ausreichend*" ["unsatisfactory"], the candidate is considered to have failed the master's examination.
- (9) <sup>1</sup>If the master's thesis is deemed "*nicht ausreichend*" ["unsatisfactory"], the chair of examiners shall inform the candidate of the decision. <sup>2</sup>A master's thesis on a given topic may not be submitted a second time.
- (10) One copy of the master's thesis is to remain on record.

### § 13 Credit point system

- (1) <sup>1</sup>A record of credit points for completed modules is to be kept by the University of Bayreuth's Examinations Office for each student who is enrolled in the programme of study. <sup>2</sup>The credit points that appear on the transcript are identical to credit points for coursework and examinations as stipulated in the European Credit Transfer System (see Annex 1).
- (2) <sup>1</sup>The credit points for the modules are given in the annex. <sup>2</sup>Within the means available, students shall be allowed to view the credit points they have earned at any time.

### § 14 Consideration of extenuating life circumstances

- (1) <sup>1</sup>If duly requested, the following are to be observed: periods set aside by law for working mothers  
(§§ 3, 4, and 8 of Working Mothers Protection Act, *MuSchG*, dated 20 July 2002, BGBl p. 2318 - as amended), periods set aside under the laws concerning parental leave (*BEEG*, dated 5 December 2006, BGBl p. 2748 - as amended), and periods reserved for care of a family member (as stipulated in *PflegeZG*, dated 28 May 2008, BGBl pp. 874, 896 - as amended) who requires care as described in §§ 14 and 15 of *SGB XI*, dated 26 May 1994 (BGBl pp. 1014 and 1015), as amended.  
<sup>2</sup>The appropriate evidence must be furnished; any changes in status are to be reported immediately.
- (2) <sup>1</sup>If duly requested, periods during which study was impossible or only possible to a limited extent for reasons beyond the student's control (especially illness) shall not be taken into account with regard to the examination schedule. <sup>2</sup>Reasons beyond the student's control are, in particular, illness or caring for a relative who is ill.  
<sup>3</sup>Corresponding evidence must be furnished; medical certificates must be presented in the case of illness. <sup>4</sup>Any changes in status are to be reported immediately.

## § 15

### Consideration of the special needs of disabled persons

<sup>1</sup>For the sake of ensuring equal opportunities, the particular needs of disabled examinees are to be appropriately accommodated. <sup>2</sup>Upon written request, the board of examiners shall determine on the basis of the degree of disability in what form a disabled examinee is to take the examination; alternatively, an extension of up to half the normal examination time may be granted. <sup>3</sup>Evidence of disability is to be provided by way of a medical certificate, which confirms that the candidate is unable (entirely or in part) to take the examination in its usual form due to a lasting or permanent disability. <sup>4</sup>The request is to be submitted together with the examination registration. <sup>5</sup>If the request is submitted later, it shall only be valid for subsequent examinations.

## § 16

### Examination grades

(1) The following grading scale will be used in the assessment of the individual assignments and examinations; the digit to the right of the comma enables a more differentiated assessment between the whole-number values.

" <i>sehr gut</i> " ["very good"] (excellent)	= 1,0 or 1,3
" <i>gut</i> " ["good"] (considerably better than average)	= 1,7 or 2,0 or 2,3
" <i>befriedigend</i> " ["satisfactory"] (average performance)	= 2,7 or 3,0 or 3,3
" <i>ausreichend</i> " ["sufficient"] (performance that meets the minimum requirements despite deficiencies)	= 3,7 or 4,0
" <i>nicht ausreichend</i> " ["unsatisfactory"] (insufficient due to considerable deficiencies)	= 5,0.

(2) <sup>1</sup>If a module contains multiple graded module examinations, the module grade shall be determined as the arithmetic mean of the graded module examinations, weighted according to the credit points awarded for each. <sup>2</sup>In this calculation, the grade shall only be given to one decimal place. The remaining digits are to be truncated (not rounded).

<sup>3</sup>Module grades are as follows:

average grade of 1,5 or better	= " <i>sehr gut</i> " ["very good"]
for an average grade of 1,6 up to and including 2,5	= " <i>gut</i> " ["good"]
for an average grade of 2,6 to 3,5	= " <i>befriedigend</i> " ["satisfactory"]
for an average of 3,6 up to and including 4,0	= " <i>ausreichend</i> " ["sufficient"].

## § 17 Final grade

- (1) <sup>1</sup>The overall grade for the master's examination is calculated by taking the arithmetic mean of the grades received for the modules completed successfully, weighted according to the credit points awarded. <sup>2</sup>The grade for the master's thesis is to be weighted at a factor of 1.5 when calculating the arithmetic mean. <sup>3</sup>In this calculation, the grade shall only be given to one decimal place. The remaining digits are to be truncated (not rounded).
- (2) Candidates who pass the master's examination are to receive a final grade as follows: an average grade of 1,2 or better is "ausgezeichnet" ["excellent"], up to 1,5 is "sehr gut" ["very good"], up to 2,5 is "gut" ["good"], up to 3,5 is "befriedigend" ["satisfactory"], up to 4,0 "ausreichend" ["sufficient"].
- (3) Calculation of the final grade is to be carried out by the chair of examiners. The certificate or an attached document shall indicate how the final grade was calculated.
- (4) <sup>1</sup>In addition to the degree certificate, an ECTS grading table will be issued as stipulated in the ECTS guidelines in the version dated 6 February 2009. <sup>2</sup>This table displays what percentage of programme graduates in a given time frame received the same final grade as described in paragraph 2. <sup>3</sup>Those programme graduates who were awarded their diplomas in the previous 8 semesters shall serve as the reference group as long as it includes at least 30 persons. <sup>4</sup>The date of the last examination shall be decisive in assigning graduates to a particular semester. <sup>5</sup>If the minimum number of graduates is not reached, the number of previous semesters is to be extended until the minimum number is reached. <sup>6</sup>If the programme of study does not yet have as many graduates as the minimum number required of the reference group, an ECTS grading table will be issued as soon as the minimum number is reached. <sup>7</sup>For degrees awarded before the minimum number is reached, an ECTS grading table will be issued at a later date upon request once the minimum number has been reached. <sup>8</sup>The graduate's own graduating class is also to be included in the reference group. <sup>9</sup>The size of the reference group and the time frame is to be included.

## § 18

### Passing the master's examination

- (1) <sup>1</sup>Passing the master's examination requires a grade of “*ausreichend*” [“sufficient”] or better for the master's thesis and each examination; in addition, all 120 credit points (including the master's thesis) must be earned and any requirement in connection with § 2 para 2 must be fulfilled. <sup>2</sup>Failing grades for core elective examinations are not relevant to passing the master's examination, as long as the required credit points given in sentence 1 are achieved.
- (2) <sup>1</sup>If the candidate has not fulfilled the requirements given in paragraph 1 by the end of his or her sixth semester of full-time study or twelfth semester of part-time study due to reasons under his or her control, then the candidate shall be considered as having failed the master's examination at the first attempt. <sup>2</sup>Minor breaches of the set deadline that arise due to the course of the examination proceedings are permissible. <sup>3</sup>Examinations that were taken on time and for which the candidate received a passing grade need not be repeated.
- (3) <sup>1</sup>If the missing examinations are not passed by the student within a year of the deadline given in paragraph 2 sentence 1 for reasons under his or her control, or if all possibilities to repeat the examinations have been exhausted, then the candidate shall be considered as having failed the master's examination on the final attempt. <sup>2</sup>The deadline shall not take into account periods of leave and periods during which the candidate withdrew from study. <sup>3</sup>Notice shall be sent to inform the candidate that he or she has failed an examination on the final attempt in accordance with § 4 para 5 in conjunction with Article 41 of the Bavarian Administrative Procedures Act (*BayVwVfG*) as amended. <sup>4</sup>The board of examiners may grant the student an extension of the deadline stated in sentence 1 for circumstances beyond his or her control.
- (4) <sup>1</sup>If the candidate withdrew from the university prior to the deadline stated in paragraph 2 sentence 1, any failed examinations must be repeated within a year of withdrawal. In order to do so, enrolling again in accordance with Article 42 para 2 sentence 1 of the Bavarian Higher Education Act (*BayHSchG*) will be required. <sup>2</sup>If the examinations stated in sentence 1 are not passed by the student within a year of the stated deadline or if all possibilities to repeat the examinations have been exhausted, then the candidate shall be considered as having failed the master's examination irrevocably. <sup>3</sup>Notice of failing the examination shall be sent to the student regardless of his or her enrolment status. <sup>4</sup>Paragraph 3 sentences 3 and 4 also apply.



## § 19

### Repeating examinations at the University of Bayreuth

- (1) Any examination that was failed on the first attempt can be repeated once.
- (2) Failed core elective examinations need not be repeated.
- (3) Voluntarily repeating examinations that were already passed or the master's thesis is not permitted.
- (4) <sup>1</sup>Repeating an examination for a second time is only permitted for up to three failed examinations. <sup>2</sup>A third repetition is only permissible in case of a failed examination after prior consultation with the programme advisor.
- (5) <sup>1</sup>The master's thesis can be repeated with a new topic if the student receives a failing grade for the thesis. <sup>2</sup>Repeating the master's thesis for a second time is not permitted.
- (6) Administrative measures shall be taken to ensure that it is possible to repeat the failed examinations or a failed master's thesis within six months.

## § 20

### Notice of failing master's examination

If a candidate has failed the master's examination on the final attempt, then a written notice shall be sent to him or her within two weeks upon request (including evidence of the corresponding grades); the notice shall include a list of the individual examination grades as well as coursework/examinations that is still missing.

## § 21

### Access to examination documents

- (1) Following the conclusion of an examination, the candidate may - upon request and within the means available - be granted access to his or her graded examination documents including relevant comments made by the examiners as well as the record sheets for the examination.
- (2) <sup>1</sup>Such requests are to be made no later than one month after the degree certificate is awarded. <sup>2</sup>Article 32 of the *BayVwVfG* shall apply *mutatis mutandis*.

## § 22

### Defects in the examination proceedings

- (1) If it is shown that there were defects in the examination proceedings which influenced the examination results, the candidate or the board on its own initiative shall request that the relevant examinations be repeated.
- (2) Any defects in the examination proceedings or circumstances preventing the candidate from completing the examination are to be reported to the examiner or the chair of examiners without delay, and in any case, prior to notice being given of the examination results.
- (3) Claims under the terms of paragraph 1 must be made within six months of the examination's conclusion.

## § 23

### Non-appearance, withdrawal from examinations, cheating, and policy violations

- (1) <sup>1</sup>Candidates who have registered for an examination may withdraw without providing a rationale by submitting a written statement of withdrawal by the deadline announced by the board of examiners. <sup>2</sup>If the candidate fails to appear for an examination for which he or she was registered without good reasons for doing so, or if he or she withdraws subsequent to the deadline stated in sentence 1, he or she will be considered to have failed the examination.
- (2) <sup>1</sup>The grounds for failing to appear - or to the extent that paragraph 1 sentence 1 does not apply – or for withdrawal must be submitted to the board of examiners without delay and substantiated by *prima facie* evidence. <sup>2</sup>The same applies to inability to take the examination due to circumstances arising during the examination. <sup>3</sup>Inability to take the examination due to illness must be documented with a medical certificate. <sup>4</sup>If the board of examiners accepts the reasons given, a new examination time is to be offered under the terms of § 9 within six months.
- (3) If withdrawal or failure to appear is caused by reasons beyond the candidate's control, examinations/coursework completed up to that point are to be recognized.
- (4) <sup>1</sup>If the candidate attempts to influence the results of an examination by cheating or making use of materials that are not permitted, he or she shall be given the grade "*nicht ausreichend*" ["unsatisfactory"]. <sup>2</sup>Any candidate who significantly disrupts the examination proceedings may be removed from the examination by the examiner or invigilator and barred from continuing the examination.

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In this case, he or she shall be given the grade "*nicht ausreichend*" ["unsatisfactory"].

## § 24

### Invalidating the master's examination

- (1) If a candidate cheats during an examination and this fact does not come to light until after the degree certificate is issued, the board of examiners may retroactively change the relevant grades accordingly and declare the master's examination to be failed either in part or entirely.
- (2) <sup>1</sup>If the registration requirements for the examinations were not met by the candidate without this having involved any cheating on the part of the candidate, and if this fact does not come to light until after the degree is issued, then this fault shall be considered rectified via the candidate's passing of the master's examination. <sup>2</sup>If the candidate registered by intentionally providing false information, the board of examiners shall decide whether to revoke any unlawful administrative acts on the basis of the general principles of administrative law.
- (3) The candidate shall be permitted to make a statement prior to the decision.
- (4) <sup>1</sup>The inaccurate degree certificate is to be taken away and, if applicable, replaced with a new one. <sup>2</sup>A decision as described in para 1 and para 2 sentence 2 is only possible within five years of the date of the diploma certificate.

## § 25

### Awarding the master's degree; diploma

- (1) <sup>1</sup>A diploma and a certificate for successful completion of the master's examination are to be issued within four weeks of demonstrating completion of the required module credits. <sup>2</sup>The diploma is to include the title of the programme of study. <sup>3</sup>It is to be signed by the dean of the Faculty of Mathematics, Physics & Computer Science and stamped with the seal of the University. <sup>4</sup>Upon issuance of the diploma, the graduate is given the right to bear the title "Master of Science". <sup>5</sup>This title is to be abbreviated "M.Sc." and placed behind the surname.
- (2) <sup>1</sup>The certificate is to include the title of the programme of study and areas of application selected, the final grade, all passed modules, all module examinations undertaken (including credit points and grades achieved), as well as the topic of the master's thesis and the grade received for the thesis. <sup>2</sup>The certificate is to be signed by the chair of examiners.

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<sup>3</sup>The date to be used is the day of the last assessment component. <sup>4</sup>In addition, a "Diploma Supplement" is to be signed by the chair of examiners and issued. <sup>5</sup>In addition to the certificate, an ECTS grading table is to be issued under the terms of § 17 paragraph 4.

- (3) Any revocation of the degree "Master of Science" is to be carried out in accordance with the legal regulations (Article 69 of the Bavarian Higher Education Act).

## **§ 26**

### **Academic advising**

- (1) General student advising is offered by the University of Bayreuth's Student Advising Office.

- (2) <sup>1</sup>Programme advising shall be carried out under the responsibility of the Department of Computer Science's instructors. <sup>2</sup>Orientation events are to be held for new students. <sup>3</sup>Individualized programme advising is available as part of the mentoring programme. <sup>4</sup>In particular, students should take advantage of the individualized programme advising in the following cases:

- at the start of their studies,
- after having failed examinations,
- after having achieved considerably less than 30 credit points per semester in full-time study,
- after having achieved considerably less than 15 credit points per semester in part-time study,
- students transferring from a different degree programme or university,
- when deviating from the application models (§ 3 para 1 item C).

<sup>5</sup>In particular, students should consult the programme advisor with a view to their emphasis of study when selecting core electives and putting together their course schedules (§ 3 para 2).

## **§ 27**

### **Effective date**

- (1) <sup>1</sup>These examination regulations shall take effect on 1 April 2012. <sup>2</sup>It applies to all students who started their studies in summer semester 2012 or later. <sup>3</sup>The remaining students are to plan their studies in accordance with the previous Examination and Study Regulations for the master's programme *Computer Science* at the University of Bayreuth, dated 30 July 2010 (AB UBT 2010/046).

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<sup>3</sup>Such students may carry out their studies under the terms of the present regulations if so requested in writing.

- (2) Notwithstanding the provisions of paragraph 1 sentence 3, the Examination and Study Regulations for the master's programme *Computer Science* at the University of Bayreuth, dated 30 July 2010 (AB UBT 2010/046), shall cease to apply on 1 April 2012.\*).

\*) This set of amendments contains the following provisions with regard to the effective date:

The present regulations shall take effect on the day following their publication.

## Annex: Module overview

One examination is generally to be taken for each module. The relevant forms of examination are based on § 11; the form of examination is to be determined on the basis of § 9 para 2 sentence 1.

<b>Abbreviation</b>	<b>Area Modules</b>	<b>Credit Points<sup>(*)</sup></b>
	<b>Area A: Computer Science</b>	
INF 201	Parallele und verteilte Systeme II	5
INF 202	Computergraphik I	5
INF 203	Eingebettete Systeme	5
INF 204	Datenbanken und Informationssysteme II	5
INF 205	Software Engineering II	5
INF 206	Algorithmen und Datenstrukturen II	5
INF 207	Robotik I	5
INF 208	Computersehen	5
INF 209	Interaktive Physikalische Simulation	5
INF 210	Künstliche Intelligenz II	5
INF 212	Theoretische Informatik II	5
INF 213	Multimediale Systeme II	5
INF 305	Programmierung innovativer Rechnerarchitekturen	8
INF 307	Datenbanken und Informationssysteme III	8
INF 311	Sicherheit in verteilten Systemen	5
INF 313	Software Engineering III	8
INF 314	Algorithmen und Datenstrukturen III	8
INF 315	Robotik II	5
INF 316	Mustererkennung	5
INF 317	Computergraphik II	5
INF 318	Mensch-Maschine-Interaktion	5
	<i>to be earned:</i>	<i>30 to 45</i>
	<b>Area B: Projects</b>	
INF 351	smaller master's project	8
INF 352	larger master's project	15
INF 353	larger master's seminar	8
	<i>to be earned:</i>	<i>30 to 32</i>
	<b>Area C: Application</b>	
	Modules from the area of application chosen under § 3 para 1 item C	
	<i>to be earned:</i>	<i>5 to 25</i>
	<b>Area D: Studium Generale</b>	
	Modules covering key transferable skills under § 3 para 1 item D	
	<i>to be earned:</i>	<i>5 to 10</i>
	<b>Area E: Master's thesis</b>	
INF 301	Master's thesis	30
	<i>to be earned:</i>	<i>30</i>
	<b>Total</b>	<b>120</b>

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(\*) For the credit points to be earned in each area as well as the total credit points to be earned, see § 3 para 2.