

The English version is provided for reference only. The promulgated German version alone shall have legal force.

Academic and Examination Regulations for the Elite Master's Degree Program with additional Doctoral program in Mathematics at the Technical University of Munich

dated: 23. February 2018

In accordance with Art. 13 (1) sentence 2 in conjunction with Art. 58 (1) sentence 1, Art. 61 (2) sentence 1 and Art. 64 (2) of the *Bayerisches Hochschulgesetz (BayHSchG)* [Bavarian Higher Education Act] the Technical University of Munich issues the following Subject Examination and General Academic Regulations (*Fachprüfungs- und Studienordnung, FPSO*):

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Appendix 1: Aptitude Assessment

I. General Regulations

§ 1

Applicability, Academic Titles

- (1) ¹These Academic and Examination Regulations (FPSO) complement the General Academic and Examination Regulations for bachelor's and master's programs at the Technical University of Munich (APSO) of 18 March 2011 as amended, as well as the Regulations for the Awarding of Doctoral Degrees at the Technical University of Munich of 12 March 2012 as amended. ²The APSO and the Regulations for the Awarding of Doctoral Degrees have precedence.
- (2) Depending on the type of examination passed, the following academic degrees are awarded in accordance with these regulations:
 1. ¹Upon successful completion of the Master's examination the degree "Master of Science" (M.Sc.) is awarded. ²The academic title may also be used with the name of the university ("TUM") ³The master's examination in Mathematics leads to a degree qualifying students for positions in industry and research.
 2. ¹Upon successful completion of the doctoral program, the academic degree "Dr. rer. nat." is awarded by the TUM Department of Mathematics. ²The doctoral examination in Mathematics leads to a degree qualifying students for a a career in science and research.

§ 2

Program Objectives

- (1) ¹The Elite Master's Degree Program is research oriented. ²It offers highly qualified students, e.g. graduates of the elite Bachelor of Mathematics program at the Technical University of Munich, the opportunity to acquire in-depth knowledge at an early stage through individual support structures (independent studies with one-to-one supervision; e.g. as part of the Bavarian Elite Network). ³Modules of the Elite Master's Degree Program, in particular discipline-specific modules in fields outside the student's area of specialization; lectures in front of an international audience; the acquisition of soft skills; and the writing of the master's thesis, ensure qualification not only for research but in industry as well.
- (2) ¹The doctoral program offers candidates intensive preparation for their own research activities. ²Through individual support structures (independent studies with 1:1 supervision; e.g. as part of the Bavarian elite network), the highly qualified students of this program acquire in-depth knowledge at an early stage. ³Candidates demonstrate their ability to conduct independent research through work on a specific research topic. ⁴The doctoral program is to be completed, in part, parallel to the Elite Master's Degree Program (see § 16 Para. 1). ⁵Support by the appointed supervisor is very intensive in the first two semesters. ⁶Candidates' research is to become increasingly more independent as they move through the program. ⁷This is to be documented before completion of the dissertation through the publication of scientific papers, possibly with co-authors, and through presentations e.g. at international conferences. ⁸Independent management of small scientific groups for students in regular bachelor's and master's degree programs is also possible.

§ 3

Commencement of Studies, Standard Duration of Study, ECTS

- (1) Admission to the doctoral program and the Elite Master's Degree Program at the Technical University of Munich is possible both in the winter and in the summer semester.
- (2) ¹The standard duration of study for the Elite Master's Degree Program will be a total of four semesters. ²Modules required to obtain the Elite Master's Degree, including independent studies, amount to 90 credits. ³Students will have a maximum of six months (30 credits) to complete their master's thesis.
- (3) ¹The standard duration of study for the doctoral program will be a total of six semesters. ²Modules required to attain the doctoral degree, including the doctoral thesis and oral examination, amount to at least 180 credits, of which 60 credits derive from the Elite Master's Degree Program.

§ 4

Program Implementation

These degree programs are conducted by the TUM Department of Mathematics.

§ 5

Recognition of Study, Coursework and Examinations

The recognition of periods of study, coursework and examination results is governed by the provisions of § 16 of the APSO.

§ 6

Examination Board, Student Academic Advising

- (1) For the planning and implementation of the Elite Master's Degree Program and the doctoral program, the TUM Department of Mathematics appoints an Examination Board consisting of the Chairperson of the Examination Board of the Department of Mathematics and at least two further professors, as well as an academic staff member of the Department of Mathematics.
- (2) ¹The examination board elects a chairperson from the group of professors. ²The term of office of the members of the Examination Committee is two years; re-election is possible.
- (3) ¹The Department Council of the TUM Department of Mathematics, in consultation with the Examination Board, shall appoint a study advisor. ²This person shall serve as a member of the Examination Board.
- (4) A student representative will be invited, as a guest, to attend meetings of the Examination Board that do not concern issues of evaluation or particular persons.
- (5) The study advisor reviews students' suggestions for their individual curricula and examination schedule in accordance with § 9 and determines, where applicable, additional requirements. The Examination Board holds the final decision on the approval of student curricula and examination schedules.

- (6) Academic guidance is provided by the study advisor, supervisors instructors and, in particular, the members of the Examination Board.

II. Elite Master's Degree Program

§ 7

Admission Requirements, Language of Instruction

- (1) Eligibility for the Elite Master's Degree Program is demonstrated by:
1. a qualified bachelor's degree obtained after a program of at least six semesters from a domestic or foreign institution of higher education or at least an equivalent degree in mathematics,
 2. adequate German language skills pursuant to § 7 Abs. 4 Nr. 9 of the Immatrikulations-, Rückmelde-, Beurlaubungs- und Exmatrikulationssatzung (ImmatS) [§ 7 (4) no. 9 of the Statutes governing Enrollment, Re-Enrollment, Leave of Absence and Withdrawal] of the Technical University of Munich of 9 January 2014, as amended, or adequate English language skills; students whose native language or language of instruction is not English must demonstrate proficiency through an acknowledged language test such as "Test of English as a Foreign Language" (TOEFL) (with a minimum of 88 points), "International English Language Testing System" (IELTS) (with a minimum of 6,5 points), or "Cambridge Main Suite of English Examinations";
 3. passing of the Aptitude Assessment pursuant to Appendix 1.
- (2) A degree is considered a qualified degree within the meaning of subsection 1 if such degree requires the successful completion of examinations that are equivalent to the examinations in the research oriented bachelor's program of the TUM Department of Mathematics specified in subsection 1, no. 1, and correspond to the subject-specific requirements of the master's program.
- (3) The module catalog of the bachelor's degree program in Mathematics at the TUM Department of Mathematics will be used to assess eligibility in accordance with subsection 2.
- (4) The comparability of programs, the subject-specific aptitude as well as the equivalence of degrees acquired from foreign institutions will be decided upon by the Examination Board in compliance with Art. 63 of the Bayerisches Hochschulgesetz [Bavarian Higher Education Act].
- (5) ¹In addition to the German-language modules, sufficient modules are offered in English. ²It is therefore also possible to study the master's program in English. ³Students who have not verified their knowledge of German in the application process will be conditionally admitted with the stipulation that they complete at least one module by the end of the second semester of enrollment in the degree program, in which they acquire integrative knowledge of German. The offer will be announced by the Examination Board accordingly. Optional completed extracurricular courses e.g. German courses offered by the language center, will also be recognized.

§ 8

Admission to and Registration for Examinations

Students who are enrolled in the elite master's program are deemed admitted to the module examinations of the elite master's degree program.

§ 9 Supervision

- (1) ¹No later than six months after the start of the elite master's program, the Examination Board will appoint the primary supervisor upon application and after consultation with the student concerned. ²Change of the supervisor at a later date is possible.
- (2) ¹Any authorized examiner of the TUM Department of Mathematics in accordance with § 10 of the Regulations for the Awarding of Doctoral Degrees may be appointed supervisor. ²The supervisor will supervise the independent studies and, as a rule, the master's thesis.
- (3) ¹The supervisor, together with the study advisor (see § 6) and the student, will develop the individual curriculum. ²The curriculum must specify the subjects for the examinations set out in § 10 (2) nos. 1-3.

§ 10 Master's Examination

- (1) ¹As part of the master's examinations determined in the individual curriculum and listed in (2) must be successfully completed. ²In addition, each student must write a master's thesis amounting to 30 credits (§ 11).
- (2) At least 90 credits must be earned from the catalog of mandatory and elective modules below:
1. Introductory Independent Studies (15 CP, elective module),
 2. Independent Studies (15 CP, mandatory module),
 3. Advanced Independent Studies (15 CP, elective module),
 4. Soft Skills (minimum 4 CP, maximum 10 CP, pass/fail elective modules),
 5. Internship (6 CP, pass/fail elective module),
 6. up to two seminars (3 CP each, pass/fail elective modules),
 7. presentation of student's own results at an international conference (5 CP, pass/fail elective module),
 8. coursework from elective modules required in a master's program at the Department of Mathematics.
- (3) ¹Examinations in the modules listed in (2) nos. 1 through 3 will be held orally by two examiners appointed by the examination board, including the supervisor. ²The topics for the modules listed in (2) nos. 1 through 3 will be agreed upon with the supervisor at the beginning of the semester. ³The examination pursuant to (2) no. 1 takes 40 minutes. ⁴The examination is to demonstrate whether the student is able to understand a given and manageable scientific problem within a clearly defined mathematical field and to analyze it using a theoretic and methodical approach. ⁵The examination set out in (2) no. 2 starts with a presentation of approx. 15 minutes, which is open to the university public and allows for questions to be asked by the public, and is concluded with a nonpublic examination interview of approx. 30 minutes. ⁶The examination is to demonstrate whether the student is able to deal independently with a demanding mathematical problem and to work systematically toward acquainting himself or herself with complex mathematical theories and presenting suitable proof. ⁷Students are expected to present their scientific approach in a comprehensible and critical manner. ⁸The examination pursuant to (2) no. 3 takes 40 minutes. ⁹The examination is to demonstrate whether the student is able to work on a mathematical problem with research relevance, including additional open-ended questions and alternative, justifiable problem solutions.

- (4) Examinations in mathematics and theoretical fields of other sciences within the scope of the Mathematics master's program at the Technical University of Munich that were successfully completed at another university or in the course of a semester abroad may, up to a total of 18 credits, be recognized and counted as electives toward the master's as set out under (2) no. 8, if they, even if there is no corresponding module in the module catalog of the Technical University of Munich, comply with the remaining requirements of the Mathematics master's program and have a reasonable disciplinary connection to the contents of the Mathematics master's program.

§ 11 Master's Thesis

- (1) ¹The master's thesis may be supervised by any expert examiner of the Department of Mathematics of the Technical University of Munich or Augsburg University, as a rule by the supervisor (see § 9). ²The master's thesis may be written in either the German or the English language. ³The period of time between topic assignment and submission of the completed master's thesis must not exceed 6 months. ⁴If the master's thesis was not passed or not submitted in time, it may be repeated once. ⁵Students must renew their application for admission within six weeks from receipt of the grade.
- (2) ¹A paper published or accepted for publication in an international, peer-reviewed journal may be recognized as master's thesis. ²For papers involving several authors, a detailed list identifying each student's share of independent work must be included and be signed by all co-authors. ³If a paper has not yet been accepted for publication, equivalence as set out herein above may be established by two expert opinions.

§ 12 Examination Deadlines, Progress Monitoring, Failure to Meet Deadlines, Repetition

- (1) Examination deadlines, progress monitoring, and failure to meet deadlines are governed by § 10 of the APSO.
- (2) The mandatory module "Independent Studies" (§ 10 (2) no. 2) should be successfully completed by the end of the second semester.
- (3) ¹The master's thesis must be submitted no later than by the end of the sixth semester in which the student is registered for courses awarding credits toward the degree unless there are compelling reasons pursuant to § 10 (7) of the APSO. ²Subsection (4) shall apply accordingly to repetition.
- (4) ¹Failed examinations may be repeated once. ²The repeat examination must, as a rule, be taken within a period of no more than six months from receipt of the grade. ³Otherwise the examination will be deemed failed again.

§ 13 Awarding of Master of Science Degree

Students enrolled in the Elite Master's Program in Mathematics, who have earned 120 credits as specified in § 10 within the deadlines set out in § 12, are awarded the "Master of Science" (M.Sc.) degree.

§ 14 Assessment of Examinations

¹The module grade will be determined according to § 17 of the APSO. ²The overall grade is calculated on the basis of module grades, weighted according to credits in accordance with § 10.

§ 15 Degree Certificate, Diploma, Diploma Supplement

- (1) In accordance with § 10 Para. 2, the degree certificate for the Elite Master's Program lists the modules taken, module grades earned, the topic of the master's thesis and grade, as well as the overall grade.
- (2) ¹If the examination for the Elite Master's Program has been passed, a degree certificate, a diploma and a diploma supplement with a transcript of records is to be issued in accordance with § 25 Para. 1 and § 26 of the APSO. ²The date to be entered on the degree certificate is the day when all examination and course work requirements have been fulfilled.
- (3) ¹Those who have successfully passed the master's examination receive the designation "with Honors" in addition to their overall grade. ²The equivalence of the Master of Science degree awarded with the "Master of Science with Honors" formerly awarded by the Elitenetzwerk Bayern is confirmed on the diploma.

III. Doctoral Program

§ 16 Eligibility Requirements

- (1) ¹After completing two semesters of the Elite Master's Program, it is also possible to begin the doctoral program in mathematics. ²If there are good reasons, as specified in § 10 Para. 7 of the APSO, the start in the doctoral program may be postponed to a later date.
- (2) Qualification for the doctoral program in mathematics requires:
 1. passing examinations amounting to at least 60 credits in the Elite Master's Program in Mathematics at the Technical University of Munich with an overall grade of 1.5 or better, including the examination in the Independent Studies module (§ 10 Para. 2 No. 2); if there are good reasons under § 10 Para. 7 APSO, the examination board may waive the requirement of at least 60 credits,
 2. confirmation from your the Elite Master's Program supervisor (§ 9), or by another person from the group of persons named in § 9 Para. 2, that he/she will supervise the doctoral project.
 3. the ability to work independently on mathematical research topics according to scientific principles, to have acquired thorough specialist knowledge and, overall, to successfully complete a dissertation within three years.
- (3) The Examination Board (§ 7) decides on the qualification within the meaning of the previous paragraph after conferring with the supervisor of the Elite Master's Program, another instructor from the program and the student concerned.

§ 17 Supervision

¹The Examination Board is to appoint the supervisor for the doctoral program no later than three months after the start of the program. ²Otherwise, § 9 shall apply accordingly. ³The supervisor develops the individual curriculum with the student (§ 6) and supervises the dissertation.

§ 18 Admission to and Registration for Doctoral Examinations

- (1) Upon enrollment in the doctoral program, a student is considered admitted to all module examinations of the doctoral program.
- (2) Registration for module examinations takes place in consultation with the supervisor and the study advisor of the Examination Board.

§ 19 Course Offerings and Examinations

- (1) The doctoral examination comprises the scientific work (dissertation), the oral examination in accordance with the provisions of the Regulations for the Awarding of Doctoral Degrees, and the requirements specified in the following paragraphs.
- (2) Insofar as the Master's program is completed in parallel, 60 credits from the Elite Master's program are recognized toward the doctorate.
- (3) ¹A further 60 credits must be earned through practical scientific work. ²These credits derive from two pass/fail requirements, which the student is to complete in the context of the practical-scientific work. ³The assessment of student performance in these requirements is carried out by the first supervisor and takes place after six months of full-time work; in the case of part-time work, the period is extended accordingly. ⁴Students will receive 30 credits for each requirement passed.
- (4) 45 credits are awarded for the successful completion of the dissertation and 15 credits for the oral examination.

§ 20 Examination Deadlines, Progress Monitoring, Failure to Meet Deadlines, Repetition

- (1) § 12 shall apply accordingly.
- (2) ¹The dissertation must be completed within three years. ²In justified exceptional cases, this period may be extended for six months up to two times at the request of the supervisor. ³Periods of protection under § 3 para. 2 and § 6 para. 1 of the Maternity Protection Act and periods of leave under the Act on Child Benefits and Parental Leave are to be made possible.
- (3) ¹If students fail to meet the deadlines specified in 1 and 2 above, examination modules that have not yet been completed shall be deemed irreversibly failed, unless there are valid reasons in accordance with § 10 para. 7 of the APSO. ²The possibility of earning the doctorate according to the provisions of the Regulations for the Awarding of Doctoral Degrees remains unaffected.

§ 21

Initiating the Doctoral Examination Process

Initiation of the doctoral examination process is regulated in § 9 of the Regulations for the Awarding of Doctoral Degrees.

§ 22

Implementation of the Doctoral Examination Process

- (1) Implementation of the doctoral examination process is regulated in §§ 10 through 20 of the Regulations for the Awarding of Doctoral Degrees.
- (2) Proof of passing the Master's examination is a prerequisite for admission to the oral examination in accordance with § 14 of the Regulations for the Awarding of Doctoral Degrees.

§ 23

Overall Grade for Doctoral Program and Designation of Doctoral Thesis

- (1) ¹The overall grade for the doctoral program includes the grades of the examination requirements, weighted by credits, specified in § 11 para. 1 No. 2. ²Mandatory modules specified in § 11 para. 2 No. 1 and § 14 para. 3 are weighted double. ³For the grading of the doctoral program, the evaluation of the dissertation according to § 11 of the Regulations for the Awarding of Doctoral Degrees, 1.0 is regarded as "passed with high distinction"; 2.0 as "passed".
- (2) The designation of the overall grade for the doctoral program is determined according to § 17 of the Regulations for the Awarding of Doctoral Degrees.

IV. Final Provisions

§ 24

Entry into Force

¹These regulations shall enter into force on 1 October 2017. ²They shall apply to all students their studies in the Elite Master's Program at the Technical University of Munich who commence as of the winter semester 2018/2019. ³For students who begin their studies under the Academic and Examination Regulations for the Elite Bachelor's degree program component of the TopMath degree program in Mathematics at TUM by 16 July 2007, the Academic and Examination Regulations for the doctoral program in Mathematics with parallel Elite Master's degree program in Mathematics at TUM dated 1 July 2014 shall apply as last amended.

Appendix 1: Aptitude Assessment

Aptitude Assessment for the Elite Master's Degree Program at the Technical University of Munich

1. Purpose of the Assessment

1.1 ¹Eligibility for the Elite Master's Degree Program, in addition to the requirements pursuant to § 7 (1) no(s). 1 and 2, requires proof of aptitude pursuant to § 7 (1) no. 3 in accordance with the following provisions. ²The special qualifications and skills should correspond to all professional fields in academia, industry and public administration in which the critical analysis and solution of highly complex problems is required. ³Individual aptitude parameters are:

- 1.1 ability to do research work and/or basic research and methodological work;
- 1.2 above-average grades from undergraduate studies in mathematics,
- 1.3 especial ability and willingness to work independently and creatively,
- 1.4 particular motivation and willingness to perform for the Elite Master's Program in Mathematics

2. Aptitude Assessment Process

2.1 Aptitude Assessment is carried out each year by the Department.

2.2 Applications for admission to aptitude assessment must be submitted to TUM together with the documents specified in No. 2.3 by 1 December (deadline for submission) as part of the online application process.

2.3 Documents to be submitted:

2.3.1 Transcript of Records with modules of at least 120 credits or, in the case of degree programs not subject to the European Credit Transfer and Accumulation System (ECTS), at least two-thirds of the credits required for completion of the first degree program; the Transcript of Records must be issued by the relevant examination authority or the relevant academic programs office,

2.3.2 the curriculum on which the degree is based (e.g. module handbook),

2.3.3 curriculum vitae formatted as a table,

2.3.4 a written statement in English or German (maximum two DIN-A4 pages) explaining why you would like to be part of the Elite Master's Program in Mathematics at the Technical University of Munich and describing your special motivation to meet the demands of the program, as well as why you consider yourself particularly suitable for the program, referencing, where appropriate, the aptitude parameters listed in No. 1 Sentence 3,

2.3.5 a scientific mathematical essay of about 10,000 characters written in English or German (will usually correspond to about 3 to 4 pages with normal formatting). The chairperson of the Aptitude Assessment Commission may propose one or more topics for the essay, which is to be announced to the candidates not later than 1 October.

2.3.6 Confirmation that the applicant has prepared the written statement pursuant to 2.3.4 and the mathematical essay pursuant to 2.3.5 independently and without outside help and has appropriately cited any ideas deriving from external sources.

3. Aptitude Assessment Commission

- 3.1 ¹The aptitude test is administered by a commission that, as a rule, consists of the speaker of the Elite Master's Degree Program, at least two members of the professorial faculty and at least one research associate (wissenschaftlicher Mitarbeiter). ²At least half of the commission members must be members of the professorial faculty. ³A representative of the student body will be a part of the commission, in an advisory capacity. ⁴The Commission may consult with other faculty members.
- 3.2 ¹The members of the commission are appointed by the faculty council (*Fakultätsrat*) in consultation with the dean of studies. ²At least one member of the professorial faculty is appointed as deputy member of the commission. ³As a rule, the commission is chaired by the speaker of the Elite Master's Program. ⁴Procedural regulations will be in accordance with Art. 41 of the BayHSchG as last amended.

4. Admission to the Aptitude Assessment Process

- 4.1 Admission to the aptitude assessment process requires that all documentation specified in no. 2.3 has been submitted in a timely and complete fashion.
- 4.2 Applicants who have fulfilled the requirements will be assessed according to no. 5.
- 4.4 Applicants who are not admitted will receive a notification specifying the reasons and providing information on legal remedies.

5. The Aptitude Assessment Process

5.1 Stage 1

- 5.1.1 ¹On the basis of the written application documents specified in 2.3, the Commission assesses the applicant's aptitude for the Elite Master's Degree Program in Mathematics. ²For this purpose, the commission evaluates and grades the candidate's documentation on a scale ranging from 0 to 150 points, 0 being the worst and 150 the best possible result.

The following criteria shall apply:

1. Discipline-Specific Skills and Qualifications

¹For the purpose of curricular analysis, a schematic comparison of modules, as well as of competencies is conducted. ²This is based on the courses of the bachelor's program in Mathematics at the Technical University of Munich. ³If it is established that there are no significant differences in the competences acquired (learning outcomes), a maximum of 10 points will be awarded.

2. Final Grade

¹As a rule, all (graded) examination requirements listed in the Transcript of Records are used to calculate the grade average. ²If, at the time of application, there is a Transcript of Records including graded modules of more than 120 credits (or two-thirds of the credits required for the bachelor's degree), the calculation will be based only on the graded modules with the best grades amounting to 120 credits (or two-thirds of the credits required for the bachelor's program). ³The applicant needs to submit a list of the results together with the application and confirm their accuracy in writing. ⁴The overall grade average is calculated as a weighted grade average. ⁵The grade weights of the individual modules correspond to the credits assigned to each module. ⁶In the process of determining grades, only the first digit after the decimal point is taken into account. All other digits are dropped without rounding. ⁷For every decimal that the calculated average is better than 3.5, the applicant is awarded 3 points. ⁸The maximum number of points is 75. ⁹Negative points will not be awarded. ¹⁰Grades of international degrees will be converted by the Bavarian formula. ¹¹Applicants scoring at least 73 points in total will be admitted without further assessment of aptitude

3. Letter of motivation

¹The applicant's written statement will be evaluated by two committee members and graded on a scale of 0 – 10 points. ²The content will be assessed using the following equally weighted criteria:

- a) Subject-specific interests and goals
- b) Exceptional Motivation:
- c) Particular motivation to work creatively and independently

³The basis for the evaluation of the subject-specific interests and goals is the applicant's ability to objectively present the knowledge he or she has acquired so far and to link it to his/her own career goals and the contents of the degree program. ⁴The applicant's motivation is to be demonstrated, for example, through achievements in professional training relating to the degree program, internships, periods spent abroad or in subject-related continuing education during the bachelor's program, which went beyond required attendance and courses. Where applicable, enclose relevant documentation. ⁵The applicant's ability to present his or her previous activities and future interests in this regard serves as the basis for assessing his or her special ability and willingness to work independently and creatively.

⁶The points total will be calculated as the arithmetic means of the individual assessments, rounded up to the nearest full point.

4. Scientific Mathematical Essay

¹The essay will be evaluated by two committee members and graded on a scale of 0 – 55 points. ²The content will be assessed using the following equally weighted criteria:

1. Formal and coherent structure
2. Completeness and correctness of content, conclusive argumentation,
3. Scientific foundation

³The points total will be calculated as the arithmetic means of the individual assessments, rounded up to the nearest full point.

5.1.2 ¹The points total in the first stage will be calculated as the sum of the individual evaluations.

²Decimal places must be rounded up.

5.1.3 Applicants who have achieved 130 points will receive confirmation that they have passed the aptitude assessment.

5.1.4 ¹Applicants not suited for the program, with a total of 105 points or fewer, will receive a letter of rejection signed by the president of the university stating the grounds for rejection and informing them of legal remedies. ² Signatory power may be delegated.

5.2 Stage 2

5.2.1 ¹The remaining applicants will be invited to an aptitude assessment interview. ²In the second stage of the aptitude assessment, the qualifications acquired in the bachelor's degree program (= discipline-specific qualifications and overall grade) and the result of the assessment interview are evaluated, whereby the qualification acquired in the bachelor's is to be weighted equally. ³Interview appointments will be announced at least one week in advance. ⁴The time frame for

assessment interviews is to be set before expiry of the application deadline. ⁵The interview appointment must be kept by the applicant. ⁶If the applicant is unable to attend an aptitude assessment interview due to reasons beyond his/her control, a later appointment may be scheduled upon a student's well-grounded request, but no later than 15 March.

5.2.2 ¹The aptitude assessment interview is to be held individually for each applicant. ²The interview lasts at least 20 but not more than 30 minutes for each applicant. ³The interview will focus on the following:

1. Applicant's ability to work in scientifically, applying mathematical fundamentals and methods; his or her demonstration of interest in the subject areas of the degree program, as well as in a scientific examination of them,
2. Applicant's subject-specific knowledge from the bachelor's degree (based, for example, on a sketch of a solution to a typical mathematical problem),
3. Applicant's special ability and motivation to work independently and creatively (e.g. by means of an independent presentation of an exemplary problem area),
4. Applicant's particular willingness and motivation to achieve; he or she is prepared to educate himself or herself beyond the required attendance times.

⁴The above topics may cover the documentation submitted pursuant to 2.3. ⁴Any subject-specific academic knowledge that is to be taught in the Elite Master's Degree Program will not affect the decision.

5.2.3 ¹The aptitude assessment interview will be conducted by at least two members of the commission. ²Commission members shall independently assess each of the points referred to in 5.2.2, with equal weighting. ³Each member will grade each of the five interview topics on a scale from 0 to 85, 0 being the worst and 85 being the best possible result. ⁴The points total will be calculated as the sum of the individual evaluations. ⁵Decimal places must be rounded up.

5.2.4 ¹The total number of points awarded in stage 2 is the sum of the points from 5.2.3 and the points from 5.1.1.1 (subject-specific qualification) and 5.1.1.2 (overall grade). ²Applicants with 120 or more points will be deemed suitable.

5.2.5 ¹The applicant will be notified of the result of the aptitude test determined by the commission in writing. ²The notice must be signed by the TUM Board of Management. ³Signatory power may be delegated. ⁴A rejection notice must specify the reasons for the rejection and provide information on legal remedies.

5.2.6 Admission to the Elite Master's Program in Mathematics is valid for all subsequent applications to this program.

6. Record

¹The aptitude assessment process must be documented, including the date, duration and location of the assessment, the names of the commission members, the applicant's name, and the decision of the members of the commission as well as the complete results. ²This record must contain the essential reasons for the decision and the topics discussed at the interview held with the applicants; these reasons and topics may be recorded in note form.

7. Repetition

Applicants who have failed the aptitude assessment for the Elite Master's Degree Program may not register for a repetition of aptitude assessment.