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# Qualifying Examination and Study Regulations for the Joint Master's Degree Program Finance and Information Management (FIM) at the Technical University of Munich and the University of Bayreuth

dated June 7, 2021

Readable version as amended by the amending statutes of June 7, 2021

In accordance with Article 13 (1) Line 2 together with Article 58 (1) Line 1, Article 61 (2) Line 1 and Article 43 (5) of the Bayerisches Hochschulgesetz (BayHSchG) [Bavarian Higher Education Act] the Technical University of Munich (TUM) issues the following Examination and Acadamic Regulations (Fachsprüfungs- und Studienordnung, FPSO):

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# § 34 Applicability, Academic Degree, Related Programs of Study

- (1) These Examination and Academic Regulations (FPSO) of the Technical University of Munich (TUM) and the University of Bayreuth (UB) for the joint master's degree program in Finance and Information Management (FIM) (FPSO) complement the General Examination and Study Regulations for bachelor's and master's degree programs at the Technical University of Munich (APSO) as of March 18, 2011, as amended. The APSO shall have precedence.
- (2) Based on the successful completion of the master's examination, the academic degree "Master of Science" ("M.Sc.") is jointly awarded.

# § 35 Commencement of Studies, Standard Duration of Study, ECTS

- (1) The joint master's program in Finance and Information Management (FIM) at the Technical University of Munich generally begins in the winter semester.
- (2) The scope of the credits required for obtaining the master's degree in the compulsory and elective areas is 90 (30 semester hours), distributed over three semesters. In addition, 30 credits (maximum six months) are required to complete the master's thesis in accordance with § 46. The scope of the coursework and examinations to be performed in the compulsory and elective areas in accordance with Appendix 1 in the joint master's degree in Finance and Information Management (FIM) is therefore at least 120 credits. The standard period of study for the master's program is four semesters in total.

# § 36 Eligibility Requirements

- (1) Qualification for the joint master's program in Finance and Information Management (FIM) is demonstrated by:
  - 1. A qualified bachelor's degree of at least six semesters obtained at a domestic or foreign university or a degree of at least equivalent value in the fields of economics and social sciences, industrial engineering, (applied) computer science, mathematics including financial and business mathematics, statistics, or comparable courses of study
  - 2. Adequate knowledge of the English language; for this purpose, students whose language of education is not English must provide evidence utilizing a recognized language test such as the "Test of English as a Foreign Language" (TOEFL) (at least 88 points), the "International English Language Testing System" (IELTS) (at least 6.5 points) or the "Cambridge Main Suite of English Examinations"; if examinations amounting to 12 credits in English-language examination modules were taken in the undergraduate degree program or if a GMAT score of at least 600 points was submitted, this also demonstrates adequate knowledge of the English language,
  - 3. Job-related knowledge and skills in economics and social sciences, industrial engineering, (applied) computer science, mathematics including financial and business mathematics, statistics, or comparable qualifications; for this purpose, students must provide proof by taking the GMAT (Graduate Management Admission Test); the test result must not be older than two years at the time of application for admission,
  - 4. passing the suitability procedure according to Annex 2.
- (2) A qualified university degree within the meaning of Paragraph 1 is deemed to exist if there are no significant differences concerning the academic-oriented, relevant bachelor's degree programs mentioned in Paragraph 1 No. 1 and if, at the latest at the time of application, there is a scientific paper in the form of a bachelor's thesis, a project, a scientific essay or a comparable

- achievement of at least 5 credits in which the applicants have worked on a topic scientifically and have applied the methods and expertise of their field of study.
- (3) The module catalog of the bachelor's degree programs in Management and Technology, Mathematics, and Business Information Systems is used for the determination according to Paragraph 2.
- (4) The commission for the aptitude procedure decides on the comparability of the study program, on the determination of the special aptitude as well as on the crediting of competencies in the examination of university degrees acquired at foreign universities under the consideration of Art. 63 Bavarian University Act.

# § 37 Modular Structure, Module Examination, Courses, Course Specialization, Language of Instruction

- (1) General regulations on modules and courses are set out in §§ 6 and 8 APSO. In the event of deviations from module specifications, § 12 Para. 8 APSO shall apply.
- (2) The curriculum with the modules in the compulsory and elective areas is listed in Appendix 1.
- (3) In the master's program Finance and Information Management (FIM), modules can be chosen from the following elective areas: Quantitative Finance, Financial Management, Business & Information Systems Engineering and Sustainability and Technology.
- (4) Students shall compile an individual semester study plan to the extent of 78 credits. The corresponding modules are to be selected from Appendix 1. They shall be advised by a mentor appointed by the faculty. Any person at TUM and the University of Bayreuth who is authorized to teach in the degree program in accordance with the University Examination Regulations may be appointed as a mentor.
- (5) The language of instruction in the joint master's program in Finance and Information Management (FIM) is generally English. If students have not provided evidence of German language skills in their application, the admission will be subject to the condition that at least one module in which integrative German language skills are acquired must be completed by the end of the second semester. The offer will be announced by the Examination Committee in accordance with local practice. Voluntary extracurricular courses such as German courses offered by the TUM Language Center will also be recognized.

# § 38 Examination Deadlines, Progress Monitoring, Failure to meet Deadlines

- (1) Examination deadlines, study progress monitoring and missed deadlines are regulated in § 10 APSO.
- (2) At least two of the module examinations from the elective modules of the core area listed in Annex 1 must be successfully completed by the end of the second semester. If the deadline is exceeded, § 10 para. 5 APSO shall apply.

# § 39 Examination board

The body responsible for decisions in examination matters according to § 29 APSO is the master's Examination Board of the joint master's program Finance and Information Management (FIM). The

Master's Examination Board (Examination Board) consists of five members. At least two representatives belong to the University of Bayreuth.

# § 40 Recognition of Periods of Study, Coursework and Examination Results

The crediting of study periods, study and examination achievements is regulated by § 16 APSO.

# § 41 Continuous Assessment Procedure, Types of Assessment

- (1) <sup>1</sup>In addition to written examinations (Klausuren) and oral examinations in this course of study, possible forms of examination in accordance with §§ 12 and 13 APSO include laboratory activities, exercises (tests where applicable), reports, project work, presentations, learning portfolios and/or scientific papers.
- a) <sup>1</sup>A **Klausur** (written exam) is a supervised written examination in which the objective is, within a limited amount of time and using predefined methods and resources, to identify problems, find solution strategies and, if required, implement them. <sup>2</sup>The duration of written exams is provided for in § 12 (7) of the APSO.
- b) <sup>1</sup>Laboratory activities include, depending on the subject discipline, tests, measurements, fieldwork, field exercises and other activities with the aim of carrying out, evaluating and gaining knowledge. <sup>2</sup>Examples include the following: practical experiments, the description of procedures and the theoretical foundations thereof, including the literature, the preparation (if necessary also in the form of exercises) and practical implementation, necessary calculations, documentation and evaluation, as well as the interpretation of the results with regard to the findings to be elaborated <sup>3</sup>The laboratory activity may be complemented by a presentation for the purpose of assessing the student's communication competency in presenting scholarly work written or to an audience. <sup>4</sup>The specific components of each laboratory activity and the related competencies to be assessed are set out in the module description.
- c) <sup>1</sup>Exercises (tests where applicable) are administered to assess a student's ability to complete assigned tasks (for example, solving mathematical problems, writing computer programs, designing models) using theoretical knowledge to solve application-oriented problems. <sup>2</sup>Exercises are designed to assess the student's factual and detailed knowledge and its application. <sup>3</sup>Practical exercises may be administered in writing, orally or electronically. <sup>4</sup>They may take the form of homework assignments, practice sheets, programming exercises, (e-) tests, tasks assigned within a university internship program, etc. <sup>5</sup>Details of each practical exercise and the related competencies to be examined are set out in the module descriptions.
- d) <sup>1</sup>A **report** is a written record and summary of a learning process for the purpose of presenting the acquired knowledge in a structured way and analyzing the results in the context of a module. <sup>2</sup>The objective is to demonstrate in the report that all the essential aspects have been understood and can be presented in writing. <sup>3</sup>Reports may include excursion reports, internship reports, work reports, etc. <sup>4</sup>The written report may be complemented by a presentation for the purpose of assessing the student's communication competency in presenting scholarly work to an audience.
- e) <sup>1</sup>Project work is designed to reach, in several phases (initiation, problem definition, role assignment, idea generation, criteria development, decision, implementation, presentation, written evaluation), the defined objective of a project assignment within a given period of time and using suitable instruments. <sup>2</sup>In addition, project work may include a presentation in order

to assess a student's communication competency in presenting scholarly work to an audience. <sup>3</sup>The specific components of each project work assignment and the related competencies to be assessed are delineated in the module description. <sup>4</sup>Project work may include group work. <sup>5</sup>Here, it should be demonstrated that the tasks can be completed in a team environment. <sup>6</sup>If the student's contribution to group work is to be assessed as a component of an examination, that contribution must be clearly identifiable and gradable. <sup>7</sup>This also applies to each individual's contribution to the group result.

- f) <sup>1</sup>A **research paper** is a written assignment in which students work independently on solving complex scholarly or scholarly/application-oriented problems, using the scientific methods of the related discipline. <sup>2</sup>The objective is to demonstrate the ability to solve problems corresponding to the learning results of the module in question in compliance with the guidelines for scholarly work from analysis and conception to implementation. <sup>3</sup>Research papers, differing in their requirement standards, may take the form of a conceptual framework/theory paper [Thesenpapier], abstract, essay, research paper, seminar paper, etc. <sup>4</sup>The research paper may be complemented by a presentation and/or a colloquium for the purpose of assessing the student's communication competency in presenting scholarly work to an audience. 5Specific details of each research paper and the related competencies to be assessed are set out in the module description.
- g) <sup>1</sup>A **presentation** is a systematic and structured oral performance supported by suitable audiovisual equipment (such as a projector, slides, posters, videos) for the purpose of demonstrating and summarizing specific issues or results and paring complex problems down to their essential core. <sup>2</sup>The objective of the presentation is to demonstrate the ability to prepare a certain topic within a given timeframe in such a way as to present or report on it in a clear and comprehensible manner to an audience. <sup>3</sup>In addition, the ability to respond competently to any questions, suggestions or discussions brought by the audience and relating to the subject area should be demonstrated. <sup>4</sup>The presentation may be complemented by a brief written précis. <sup>5</sup>The presentation may be prepared either individually or in groups. <sup>6</sup>If the student's contribution to group work is to be assessed as a component of an examination, that contribution must be clearly identifiable and gradable. <sup>7</sup>This also applies to each individual's contribution to the group result.
- h) <sup>1</sup>An **oral examination** is a timed, graded discussion of relevant topics and specific questions to be answered. <sup>2</sup>The objective of oral examinations is to demonstrate that the qualification objectives laid out in the module descriptions have been reached, the central concepts of the subject matter covered by the exam have been understood, and they can be applied to specific problems. <sup>3</sup>The oral examination may be held either as an individual or group examination. <sup>4</sup>The duration of the examination is provided for in § 13 (2) of the APSO.
- i) <sup>1</sup>A **learning portfolio** is a collection of written materials compiled according to predefined criteria, demonstrating progress and achievements in defined content areas at a given time. <sup>2</sup>The criteria according to which the materials have been chosen and their relevance for their learning progress and the achievement of the qualification objectives must be explained. <sup>3</sup>The learning portfolio should demonstrate that active responsibility for the learning process has been taken and the qualification objectives set out in the module description have been reached. <sup>4</sup>Depending on the module description, types of independent study assessment in a learning portfolio may include, in particular, application-oriented assignments, websites, weblogs, bibliographies, analyses, conceptual framework/theory papers, as well as the graphic representation of facts or problems. <sup>5</sup>The specific components of each learning portfolio and the related competencies to be assessed are set out in the module description.
- (2) The module examinations are usually taken during the course of study. The type and duration of a module examination are specified in Annex 1. In the event of deviations from these stipulations, § 12 Para. 8 APSO must be observed. For the evaluation of the module examination, § 17 APSO applies.

# § 42 Registration for and Admission to the Master's Examination

- (1) Upon enrollment in the joint master's program in Finance and Information Management (FIM), students are considered admitted to the module examinations of the master's degree.
- (2) Registration for a module examination in the compulsory and elective areas is governed by § 15 Para. 1 APSO. Registration for a corresponding repeat examination in a failed compulsory module is governed by § 15 Para. 2 APSO.

# § 43 Scope of the Master's Examination

- (1) The master's examination includes:
  - 1. The module examinations in the corresponding modules according to par. 2,
  - 2. the module master's Thesis according to § 46.
- (2) The module examinations are listed in Appendix 1. There must be 12 credits in the compulsory modules and at least 78 credits in elective modules. When choosing the modules, § 8 para. 2 APSO is to be observed.

# § 44 Repeat Examinations, Failed Examinations

- (1) The repetition of examinations is regulated in § 24 APSO.
- (2) The failure of examinations is regulated by § 23 APSO.

### § 45 Coursework

In addition to the examinations specified in § 43 Para. 1, proof must be provided of the successful completion of coursework in the modules specified in Annex 1.

# § 45 Multiple Choice Tests

The implementation of multiple-choice procedures is regulated in § 12 an APSO.

# § 46 Master's Thesis

- (1) Pursuant to § 18 APSO, students must prepare a thesis as part of the master's examination in the master's Thesis module. The thesis can be issued and supervised by expert examiners from the faculties of TUM and the University of Bayreuth involved in the joint degree program (topic setter). The expert examiners according to sentence 2 are appointed by the examination board.
- (2) The completion of the master's Thesis module should normally represent the final examination performance. Whoever has provided evidence of at least 12 credits from the compulsory modules and at least 42 credits from the elective modules may be admitted to the master's Thesis module early upon application.
- (3) The time from issue to delivery of the thesis may not exceed six months. The thesis shall be deemed to have been taken and not passed if it is not delivered on time without good cause recognized in accordance with § 10 Para. 7 APSO. The thesis shall be written in English.

(4) If the master's thesis module was not rated with at least "sufficient" (4.0), it can be repeated once with a new topic. It must be re-registered no later than six weeks after the notification of the result.

# § 47 Passing and Assessment of the master's examination

- (1) The master's examination is passed if all examinations are taken within the framework of the master's examination according to § 43 Para. 1 has been passed and a point account balance of at least 120 credits has been achieved.
- (2) The module grade is calculated according to § 17 APSO. The overall grade of the master's examination is calculated as the weighted grade average of the modules in accordance with Section 43 (2) sentence and the master's thesis module. The grade weights of the individual modules correspond to the assigned credits. The overall rating is expressed by the rating according to § 17 APSO.

# § 48 Degree Certificate, Diploma, Diploma Supplement

If the master's examination is passed, a joint certificate, a certificate, and a Diploma Supplement with a Transcript of Records shall be issued in accordance with § 25 para. 1 and § 26 APSO. This certificate shall be signed by the President of TUM and the President of the University of Bayreuth. The date of the certificate shall be the date on which all examination and study achievements have been completed.

# § 49 Entry into force

These statutes shall come into force with effect from April 1, 2021. It applies to all students who begin their studies at the Technical University of Munich from the winter semester 2021/2022.

### **APPENDIX 1: Examination modules**

### I. Scope of the master's examination

	Components	Credits	Semester
1.	Course-related examinations for the acquisition of credits in the compulsory modules	12	1st semester
	Course-related examinations for the acquisition of credits in the elective modules from the core area	48	1st/2nd semester
2.	Course-related examinations for the acquisition of credits in the elective modules from the elective area	30	3rd semester
5.	Master's Thesis according to § 46	30	4th semester

#### I. Exam modules

## **Mandatory modules**

Students must successfully complete 12 credits from the following required modules.

No.	Module number	Module name	Module type	Teaching form SWS/ VÜPS	Sem.	SWS	Credits	Type of examination <sup>2)</sup>	Exam duration	Teaching language
1	WI001287	Basics of FIM	Mandatory module	6 V	1. sem	6	6	Written exam	60	English
2	WI001271	Entrepreneurship	Mandatory module	4 S	1. sem	4	6	Exam course	n.a.	English

#### Elective modules from the core area

At least 48 credits must be selected from the core area within the framework of the elective modules. These examination credits can be partially completed at the University of Bayreuth. These modules are accordingly assigned a module number beginning with the abbreviation WIBT. The applicable elective module catalog will be announced by the Faculty of Business and Economics in a suitable manner in good time before the start of lectures.

No.	Module number	Module name	Module type	Teaching form SWS/ V Ü P S	Sem.	SWS	Credits	Type of examination <sup>2)</sup>	Exam duration	Teaching language
3	WI001267	Advanced Corporate Finance	Elective module	V+T	1. sem	4	6	Written exam	60	English
4	WI001268	Venture Capital	Elective module	4 V	2. sem	4	6	Written exam	120	English
5	WI000234	Value Based Management	Elective module	2 V+ 2 Ü	2. sem	4	6	Written exam	120	English
6	WI001269	International Accounting	Elective module	2 V	1. sem	2	6	Written exam	60	English
7	WI001270	Behavioral Finance	Elective module	4 V	2. sem	4	6	scientific elaboration	n.a.	English
8	WI100180	Business Plan - Advanced Course	Elective module	4 S	2. sem	4	6	scientific elaboration	n.a.	English
9	IN2028	Business Analytics	Elective module	2V+ 2T	1. sem	4	6	Written exam	90	English
10	WI001272	Machine Learning	Elective module	V +T	2. sem	4	6	scientific elaboration	n.a.	English
11	WIBT0001	Business Process Management & Digital Innovation	Elective module	V+T	1. sem	4	6	oral examination	20	English
12	WIBT0002	Digital Energy Management	Elective module	V+T	1. sem	4	6	Written exam	90	English
13	WIBT0003	Digital Disruption, Innovation and Transformation	Elective module	S	2. sem	4	6	scientific elaboration	n.a.	English
14	MA9972	Discrete Time Finance	Elective module	2 V + 2 Ü	1. sem	4	6	Written exam	60 - 90	English
15	MA9973	Continuous Time Finance	Elective module	4 V + 2 Ü	2. sem	6	6	Written exam	90	English

#### Elective modules from the elective area

Within the framework of the elective modules from the elective area, at least one module from three of the four areas must be selected. In addition, further elective modules from the entire elective catalog must be selected from the elective area. A total of 30 credits from the elective catalog must be successfully completed. These examination credits can be partially completed at the University of

Bayreuth. These modules are accordingly assigned a module number beginning with the abbreviation WIBT. This exemplary elective module catalog is continuously updated; the applicable elective module catalog will be announced by the Faculty of Business and Economics appropriately in good time before the start of lectures.

# Elective modules from the field of quantitative finance

No.	Module number	Module name	Module type	Teaching form SWS/ V Ü P S	Sem.	SWS	Credits	Type of examination <sup>2)</sup>	Exam duration	Teaching language
16	WI000092	Banking and Risk Management	Elective module	2 V	3. sem	2	6	Written exam	60	English
17	MA9976	Financial Econometrics	Elective module	3 V	3. sem	3	6	Written exam	90	English
18	MA3405	Insurance Mathematics 1	Elective module	4 V + 2 Ü	3. sem	6	6	Written exam	90	English
19	WIBT06771	Cases in Finance	Elective module	4 S	3. sem	4	3	Research paper	n.a.	English

# **Elective modules from the area of Financial Management**

No	Module number	Module name	Module type	Teaching form SWS/VÜ PS	Sem.	SWS	Credits	Exam type	Exam duration	Teaching language
20	WI000231	Asset Management	Elective module	2V + 2T	3. sem	4	6	Written exam	120	English
21	WI001275	Applied Econometrics	Elective module	2V + 2T	3. sem	4	6	Research paper	n.a.	English
22	WI001187	Private equity	Elective module	2 V + 2T	3. sem	4	6	Written exam	60	English

# Elective modules from the field of Business & Information Systems Engineering

No.	Module number	Module name	Module type	Teaching form SWS/ VÜPS	Sem.	sws	Credits	Exam type	Exam duration	Teaching language
23	WIBT0006	Emerging Digital Technologies	Elective module	2 V + 1 S	3. sem	3	6	Research paper	n.a.	English
24	WIBT0004	Business & Information Systems Engineering	Elective module	2 S	3. sem	2	3	Research paper	n.a.	English
25	WIBT0005	Digital Energy & Sustainability	Elective module	2 S	3. sem	2	3	Research paper	n.a.	English

## Elective modules from the area of Sustainability and Technology

No.	Module number	Module name	Module type	Teaching form SWS/V ÜPS	Sem.	sws	Credits	Type of test	Exam duration	Teaching language
26	WI000813	Technology Entrepreneurship Lab	Elective module	4 S	3. sem	4	6	Project work	n.a.	English
27	WI001180	Tech Challenge	Elective module	4 S	3. sem	4	6	Project work	n.a.	English

#### Master's Thesis

No.	Module number	Module name	Module type	Teaching form SWS	Sem.	SWS	Credits	Test type	Exam duration	Teaching language
28		Master's Thesis (Master Finance and Information	Mandatory module		4th sem.		30			English
		Management)								

#### **Explanations:**

Sem. = semester; SWS = semester hours per week; V = lecture;  $\ddot{U} = exercise$ ; VI = lecture with integrated exercise; P = practical course, S = seminar.

In the column Examination Duration, the examination duration in minutes is listed for written and oral examinations.

### **ANNEX 2: Aptitude Assessement**

Aptitude Assessment for the joint master's program in Finance and Information Management (FIM) at the Technical University of Munich

## 1. Purpose Of the Assessement

Qualification for the joint master's degree program in Finance and Information Management (FIM) requires, in addition to the prerequisites of § 36 para. 1 nos. 1 and 2, proof of suitability according to § 36 para. 1 no. 3 in accordance with the following regulations. 2The special qualifications and skills of the applicants should correspond to the professional field of an economist or social scientist, industrial engineer, (business) computer scientist, or financial and business mathematician. Individual suitability parameters are:

- 1.1 Special competence in scientific work (demonstrated by a scientific paper in the context of a thesis, a project, or another comparable achievement),
- 1.2 Special willingness to perform (demonstrated, for example, by completion of an internship during studies, stays abroad, work-study activities, or social commitment),
- 1.3 Reflection on own competencies, talents, and expertise in the context of the first degree.

#### 2. Aptitude Assessment Process

- 2.1 The eligibility verification process is conducted annually.
- 2.2 Applications for the aptitude procedure must be submitted to the Technical University of Munich together with the documents according to 2.3.1 up to and including 2.3.6 as well as § 36 para. 1 nos. 2 and 3 for the winter semester in the online application procedure by May 31 (cut-off deadlines). The certificate and the transcript as proof of passing the bachelor's program must be submitted to the Application and Enrollment Department at the Technical University of Munich no later than five weeks after the start of lectures. Otherwise, admission to the master's program is not yet possible in accordance with § 36 of these statutes.
- 2.3 The application must be accompanied by:
- 2.3.1 A transcript of records with modules worth at least 140 credits; the transcript of records must be issued by the relevant examination authority or the relevant study secretariat,
- 2.3.2 The curriculum underlying the first-degree program, from which the respective module contents and the competencies imparted must be evident (e.g., module handbook, module descriptions) as well as the form issued by the faculty, in which the applicant compiles the grades, credits as well as semester hours of the required examination achievements,

- 2.3.3 A curriculum vitae in tabular form,
- 2.3.4 A Curricular Analysis derived from the Transcript of Records must be completed as part of the online application process and uploaded with the application materials,
- 2.3.5 An essay of 2,000 words written in English. In this essay, the applicants should demonstrate the ability of scientific-logical argumentation with a basic and method-oriented text structure based on a question and scientifically write the essay with correct citation of sources; the ability to express oneself in English must also be demonstrated by the explanations. The chairperson of the commission may choose one or more topics; this must be made known to the applicants by May 15 at the latest,
- 2.3.6 an assurance that the essay was prepared independently and without outside help, and that the thoughts taken from outside sources are marked as such.
- 2.3.7 an assurance that the essay was prepared independently and without outside help, and that the thoughts taken from outside sources are marked as such.

### 3. Aptitude Assessment Committee

- 3.1 The suitability procedure is carried out by a commission consisting of at least one university lecturer from the Technical University of Munich, at least one university lecturer from the University of Bayreuth, and at least one research associate. At least half of the commission members must be university professors. A student representative shall participate in the commission in an advisory capacity.
- 3.2 The members are appointed by the Faculty Council in consultation with the Dean of Studies. At least one university lecturer is appointed as a deputy member of the Commission. The commission is usually chaired by the dean of studies. Article 41 of the BayHSchG, as amended, applies to the course of business.
- 3.3 If the commission acts in accordance with these statutes, the revocable assignment of certain tasks to individual commission members is permissible. If pursuant to sentence 1, only one commission member is active in the performance of certain tasks, this member must be a university lecturer. If pursuant to sentence 1, two or more members of the commission are active in the performance of certain tasks, at least half of them must be university professors. The commission shall ensure an appropriate allocation of responsibilities. If there is room for maneuver in the evaluation of an assessment criterion of the suitability procedure and at least two commission members are active in the evaluation of this criterion, the commission members shall evaluate independently according to the weighting specified, unless otherwise regulated. The score shall be the arithmetic mean of the individual assessments, rounded up to the whole number of points.

#### 4. Admission to the Aptitude Assessment Process

- 4.1 The execution of the suitability procedure requires that the documents mentioned in No. 2.3 are submitted in due form and time and in their entirety.
- 4.2 Whoever fulfills the requirements according to No. 4.1 will be examined in the suitability procedure according to No. 5. If this is not the case, a rejection notice will be issued stating the reasons and stating the right of appeal.

### 5. Implementation of the Assessment Procedure

- 5.1 The first stage of the suitability procedure
- 5.1.1 On the basis of the written application documents required according to No. 2.3, the commission shall assess whether the applicants have the suitability for the study program according to No. 1 (first stage of the implementation of the suitability procedure). The Commission shall assess the submitted documents on a scale of 0 to 70 points, whereby 0 is the worst and 70 the best result to be achieved:

The following evaluation criteria are included:

### a) Acadmic qualification

The curricular analysis is not based on a schematic comparison of modules, but competencies. It is based on the elementary subject groups of the bachelor's degree program in Management and Technology at the Technical University of Munich listed in the following table.

Core module groups	
Business administration modules worth at least 12 credits or mathematical modules worth at least 12 credits or modules in computer science worth at least 12 credits.	10
Scientific elaboration within the scope of a bachelor thesis, a project, a scientific essay, or a comparable achievement of at least 5 credits, in which the applicant has worked on a topic scientifically and has applied the methods and expertise of his or her field of study.	10
Total	20

If it has been determined that there are no significant differences concerning the acquired competencies (learning outcomes), 20 points are awarded. If competencies are missing, 0 points are awarded for the respective group type.

#### b) Final Grade

One point is awarded for each tenth grade that the average calculated over examination performances amounting to 140 credits is better than 2.5. The maximum number of points is 15. Negative points are not awarded. For foreign degrees, the grade converted using the Bavarian formula will be used. If a degree certificate with more than 140 credits is available at the time of application, the assessment will be based on the best-graded modules amounting to 140 credits. The applicant must list these as part of the application and provide a written assurance that the information provided is correct. The average is calculated from graded module examinations amounting to 140 credits. The overall grade point average is calculated as the weighted grade point average of the modules. The grade weights of the individual modules correspond to the assigned credits.

#### c) **Essay**

The essay will be evaluated by two commission members independently on a scale of 0 - 20 points. The content of the essay is evaluated according to the following criteria:

- 1. Classify the issue in the context of financial and information management,
- 2. ability to work in a scientific or basic and methodological way,
- 3. Business/science/engineering language proficiency in English.

#### d) **GMAT Score**

The GMAT score is evaluated on a scale of 1-15 points according to the following criteria:

GMAT Point Score	735	730	725	720	715	710	700	690	680	670	660	650	600
Points	15	14	12	10	9	8	7	6	5	4	3	2	1

- 5.1.2 The score for the first stage is the sum of the individual scores. Digits that do not disappear are to be rounded up.
- 5.1.3 Those who have achieved at least 62 points have passed the suitability procedure.
- 5.1.4 Anyone who has achieved less than 40 points has not passed the suitability procedure.
- 5.2 The second stage of the suitability procedure

- 5.2.1 The remaining applicants shall be invited to an aptitude interview. In the second stage of the aptitude test, the qualification acquired in the first-degree program and the result of the aptitude test shall be evaluated, whereby the qualification acquired in the first-degree program shall be given at least equal consideration. The date of the aptitude interview shall be announced at least one week in advance. Time slots for any aptitude interviews to be held must be set before the application deadline. The date set for the interview must be observed by the applicants. If the request is justified and approved by the Commission, an aptitude interview by video conference is possible. The applicant bears the risk in the event of any technical problems unless the Technical University of Munich is responsible for these. Anyone who is prevented from attending the aptitude test for reasons for which he or she is not responsible may, upon justified application, be given a subsequent appointment no later than two weeks before the start of lectures.
- 5.2.2 The aptitude interview is to be conducted individually for the applicants. The interview shall last a minimum of 30 minutes and a maximum of 40 minutes per applicant and shall be held in English. In addition, the applicants shall take part in a group discussion. The discussion shall last a minimum of 30 minutes and a maximum of 40 minutes and shall be held in English. The content of the discussion shall cover the following main topics
  - 1. Special willingness to perform for the master's program Finance and Information Management (FIM), social as well as problem-solving skills,
  - 2. Behavior during the group discussion, e.g., communication and teamwork skills, social skills, and assertiveness,
  - 3. Basic and application-related questions from the field of finance and information management to assess professional qualifications,
  - 4. English language competence

The subject matter can also be the documents submitted in accordance with 2.3. Subject-specific knowledge that should only be imparted in the master's degree in Finance and Information Management (FIM) does not make the difference. With the consent of the applicants, a member of the group of students can be admitted to the audience.

- 5.2.3 The aptitude interview is conducted by at least two members of the commission. The commission members independently evaluate each of the four focal points, with the four focal points being weighted equally. Each of the members records the result of the aptitude interview on the point scale from 0 to 25, where 0 is the worst and 25 is the best result to be achieved. The score is the arithmetic mean of the individual scores. Non-vanishing decimal places shall be rounded up.
- 5.2.4 The total score of the second stage is the sum of the points from 5.2.3 and the points from 5.1.1.a) (professional qualification) and 5.1.1.b) (grade). Whoever has achieved 48 or more points has passed the aptitude test. Applicants with a total application score of fewer than 48 points have not passed the suitability procedure.

### 5.3 <u>Announcement of the Result</u>

The determined result of the aptitude test will be announced in a notification. If there is no room for assessment when assessing the individual criteria or when determining the overall results of the first and second stages, a resolution by the commission is not required. Rejection notices shall state the reasons and be accompanied by instructions on how to appeal.

5.4 The determined eligibility applies to all subsequent applications for this degree program.

### 6. Documentation

The process of the aptitude test must be documented; in particular, the names of the committee members involved, the assessment of the first and second stage, and the overall result must be evident. A transcript of the aptitude interview shall be prepared to show the date, duration, and place of the assessment, the names of the committee members involved, the names of the applicants, and the main topics of the interview.

### 7. Retake

Anyone who has not passed the aptitude test can register again for the aptitude test.

Issued on the basis of the resolution of the Academic Senate of the Technical University of Munich dated March 24, 2021, and the approval of the President of the Technical University of Munich dated June 7, 2021.

Munich, June 7, 2021

The Technical University of Munich

Thomas F. Hofmann President

These bylaws were filed at the college on June 7, 2021; notice of the filing was posted at the college on June 7, 2021. The date of announcement is therefore June 7, 2021.