#### The officially published GERMAN text alone has binding force

# Academic and Examination Regulations for the Master's Degree Program Science and Technology Studies (STS) at the Technical University of Munich

#### Dated 12 September 2024

In accordance with Art. 9 Sentence 1 and 2 in conjunction with Art. 80(1) Sentence 1, Art. 84(2) Sentence 1 and Art. 90(1) Sentence 2 of the Bavarian Higher Education Innovation Act [Hochschulinnovationsgesetzes (BayHIG)] the Technical University of Munich issues the following Regulations:

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### § 34 Applicability, Academic Titles

- (1) <sup>1</sup>The Examination and Academic Regulations for the Master's Degree Program Science and Technology Studies (STS) (FPSO) complement the General Academic and Examination Regulations for Bachelor's and Master's programs at the Technical University of Munich (APSO) dated 18 March 2011 as amended. <sup>2</sup>The APSO has precedence.
- (2) <sup>1</sup>Upon successful completion of the master's examination, the degree "Master of Arts" ("M.A.") is awarded. <sup>2</sup>The academic title may also be used with the name of the university "(TUM)".

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

- (1) The Master's Degree Program Science and Technology Studies (STS) at the Technical University of Munich commences, as a rule, in the winter semester.
- 1 The number of classes in required and elective subjects needed to obtain the master's degree is 90 credits (30 weekly hours per semester) spread over three semesters. 2 In addition, 30 credits (six months maximum) for the completion of the master's thesis are to be acquired in accordance with § 46. 3 The number of examinations in required and elective subjects to be completed in the Master's Degree Program Science and Technology Studies (STS) according to Appendix 1 is a minimum of 120 credits. 4 The standard duration of study for the master's program is a total of four semesters.

### § 36 Eligibility Requirements

- (1) Eligibility for the Master's Degree Program Science and Technology Studies (STS) is demonstrated by
  - 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 the following programs:
    - a) All Bachelors of Arts and economics
    - b) MINT fields (mathematics, informatics, natural sciences, technology and engineering)
    - c) Life sciences and medicine
    - d) Law
    - as well as proof of successful participation in a module in the area of social science methods and theories amounting to 8 credits,
  - 2. adequate knowledge of the English language; students whose native language or language of instruction is not English must demonstrate proficiency through an acknowledged language test such as the Test of English as a Foreign Language (TOEFL) (with a minimum of 88 points), the International English Language Testing System (IELTS) (with a minimum of 6.5 points), or the Cambridge Main Suite of English Examinations (CAE or CPE, grades A, B, C); if, in the undergraduate program, 12 credits were obtained for examinations administered in English-language examination modules (proven by a separate certificate from the institution of higher education), adequate proficiency in the English language is deemed proven,
  - 3. passing of the Aptitude Assessment according to Appendix 2.

- (2) A degree is considered to be qualified within the meaning of 1(1) if there are no significant differences with regard to the competencies (learning outcomes) acquired in the bachelor's degree programs at TUM named in 1(1) or in similar degrees at another institution of higher education.
- (3) <sup>1</sup>For determining a qualified degree in accordance with (2), the required modules of the bachelor's degree programs at TUM or other universities mentioned in (1)1 serve as reference. <sup>2</sup>If students do not meet all credit requirements, the Selection Committee can, in accordance with Appendix 2 No. 3, require students to complete additional fundamentals exams in accordance with § 36(1) to verify their qualification as stipulated in Appendix 2 No. 5.1.3. <sup>3</sup>Candidates must be informed thereof after review of the documentation during the first stage of Aptitude Assessment.

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

- (1) <sup>1</sup>General provisions concerning modules and courses are set forth in §§ 6 and 8 of the APSO. <sup>2</sup>For any changes to the stipulated module provisions § 12(8) of the APSO applies.
- (2) The curriculum listing the required and elective modules is included in Appendix 1.
- (3) <sup>1</sup>In the Master's Degree Program Science and Technology Studies (STS), students need to put together their individual semester curriculum within the framework of Appendix 1. <sup>2</sup>Students can choose one of the following two disciplines for specialization:
  - 1. Philosophy of Science and Technology
  - 2. History of Science and Technology.

<sup>3</sup>A specialization is considered to be proven when 30 credits have been earned in the Master's Thesis module and at least 15 credits in the Core Topics and Advanced Topics modules corresponding with the selected area of specialization. <sup>4</sup>Examinations amounting to at least 45 credits need to be proven in an area of specialization.

<sup>5</sup>At the end of the first semester of enrollment in the degree program, students who want to specialize in an area need to put together a curriculum with a mentor to prove the area of specialization. <sup>6</sup>Any expert examiner involved in the degree program at the Technical University of Munich can be appointed as the mentor. <sup>7</sup>The Master's Thesis and the aforementioned Core Topics and Advanced Topics elective modules catalogs for the areas of specialization are assigned when work is commenced or at the beginning of the semester using the respective content. <sup>8</sup>When a student has successfully chosen an area of specialization, it will be indicated in the Transcript of Records. <sup>9</sup>Should the criteria in Sentence 3 not be met, no area of specialization can be recognized and no area of specialization will be indicated in the Transcript of Records. <sup>10</sup>The studiability of the curriculum set in accordance with Sentence 5 for proving the areas of specialization is guaranteed at all times.

(4) As a rule, the language of instruction in the Master's Degree Program Science and Technology Studies (STS) is English.

### § 38 Examination Deadlines, Academic Progress Checks, Failure to Meet Deadlines

Examination deadlines, progress monitoring, and failure to meet deadlines are governed by § 10 of the APSO.

### § 39 Examination Board

In accordance with § 29 of the APSO, the board responsible for all decisions concerning examination matters is the Master's Examination Board of the Master's Degree Program Science and Technology Studies (STS) at the TUM School of Social Sciences and Technology.

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

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

### § 41 Continuous Assessment Procedure, Types of Assessment

- (1) <sup>1</sup>In addition to written and oral examinations, types of assessment in accordance with § 12 and § 13 of the APSO may include (but are not limited to) laboratory assignments, exercises (tests, where applicable), reports, project work, presentations, learning portfolios, research papers, or parcours examinations. <sup>2</sup>Details of each module examination and the competencies to be assessed in each examination are set out in the module descriptions. <sup>3</sup>Where the topic permits, the examination can be held either as an individual or group examination; § 18(2) Sentences 2 and 3 of the APSO apply accordingly.
  - a) <sup>1</sup>A **written examination** is a supervised examination, in which students are expected to demonstrate, within a limited amount of time and using predefined methods and resources, their ability to identify problems, find solution strategies and, if required, implement them. <sup>2</sup>The duration of written examinations is regulated in § 12(7) of the APSO.
  - b) <sup>1</sup>Depending on the discipline, **laboratory assignments** may include experiments, measurements, field work, field exercises, etc., with the goal of students conducting such work, evaluating results, and gaining knowledge. <sup>2</sup>These may consist of, for example, process descriptions and the underlying theoretical principles including studying the relevant literature; preparation and practical implementation; calculations, if required, and documentation, evaluation, and interpretation of the results in the context of the knowledge to be gained. <sup>3</sup>Laboratory assignments may be complemented by presentations designed to demonstrate a student's communication competency in presenting scholarly work to an audience.
  - c) <sup>1</sup>Practical credit requirements involve students completing assigned tasks (for example, solving mathematical problems, writing computer programs, preparing models, preparing designs) using theoretical knowledge to solve application-oriented problems. <sup>2</sup>Exercises are designed to assess a student's factual and detailed knowledge and its application. <sup>3</sup>Practical credit requirements may be administered in writing, orally, or electronically. <sup>4</sup>They may be in the form of homework assignments, practice sheets, programming exercises, (e-)tests, design tasks, posters, tasks assigned within a university internship program, etc.

- 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>Students are expected to demonstrate that they have understood all essential aspects and are able to present them 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 or a subject-specific discussion in order to assess a student's communication competency in presenting scholarly work to an audience. <sup>3</sup>It may also encompass design sketches, drawings, plans, models, objects, simulations or documentation.
- 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>Students are expected to demonstrate that they are able 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, abstract, term 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.
- g) <sup>1</sup>A **presentation** is a systematic and structured oral performance supported by suitable audiovisual equipment (such as 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>For the presentation, the student is expected to demonstrate that he or she is capable of preparing a certain topic within a given time frame in such a way as to present or report it in a clear and comprehensible manner to an audience. <sup>3</sup>In addition, the student is expected to demonstrate that he or she is able to respond competently to any questions, suggestions, or discussions brought by the audience and relating to his or her subject area. <sup>4</sup>The presentation may be complemented by a brief written precis.
- h) <sup>1</sup>An **oral examination** is a timed, graded discussion on relevant topics and specific questions to be answered. <sup>2</sup>In oral examinations students are expected to demonstrate that they have understood the central concepts of the subject matter covered by the exam and are able to apply them to specific problems. <sup>3</sup>The duration of the examination is regulated in § 13(2) of the APSO.
- i) <sup>1</sup>A **learning portfolio** is a collection of completed work compiled by the student according to predefined criteria that exhibits the student's progress and achievements in defined content areas at a given time. <sup>2</sup>Students are required to explain why they chose the work they have and its relevance for their learning progress and the achievement of the defined learning outcomes. <sup>3</sup>With the learning portfolio, students are expected to demonstrate that they have taken active responsibility for their learning process. <sup>4</sup>Depending on the module description, types of independent study assessment in a learning portfolio may include, in particular, application-oriented assignments, web pages, weblogs, bibliographies, analyses, conceptual framework/theory papers, as well as the graphic representation of facts or problems. <sup>5</sup>A subject-specific final oral discussion for the purpose of reflection and based on the content of the learning portfolio may also take place.

- j) <sup>1</sup>The **parcours examination** is made up of several components. <sup>2</sup>Unlike a module examination component, parcours exam components are administered in sequence and completed in a specific time frame and location. <sup>3</sup>Parcours components entail various types of examination, which together evaluate the competency profile of the module as a whole. <sup>4</sup>Possible types of examination in parcours components may include those listed in g) and h) in combination with a practical requirement. <sup>5</sup>The total duration of the parcours examination with all its components is indicated in the module catalog.
- (2) <sup>1</sup>As a rule, module examinations are taken concurrently with the program. <sup>2</sup>The type and duration of module examinations is stipulated in Appendix 1. <sup>3</sup>For any changes to the stipulated module provisions § 12(8) of the APSO applies. <sup>4</sup>The assessment of the module examination is governed by § 17 of the APSO.
- (3) Where Appendix 1 provides that a module examination is either in written or oral form, the examiner will inform the students officially and in appropriate form, no later than the first day of classes, of the type of examination to be held.

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

- (1) <sup>1</sup>Students who are enrolled in the Master's Degree Program Science and Technology Studies (STS) are deemed admitted to the module examinations of the Master's examination. <sup>2</sup>Where admission to individual modules requires the passing of modules, this is highlighted in Appendix 1 accordingly.
- <sup>1</sup>Registration requirements for required and elective module examinations are stipulated in § 15(1) of the APSO. <sup>2</sup>Registration requirements for repeat examinations are stipulated in § 15(2) of the APSO.

### § 43 Scope of the Master's Examination

- (1) The master's examination consists of:
  - 1. the module examinations in the corresponding modules according to § 43(2),
  - 2. the Master's Thesis module according to § 46.
- <sup>1</sup>The module examinations are listed in Appendix 1. <sup>2</sup>Students must complete 55 credits in the required modules and at least 35 credits in elective modules. <sup>3</sup>The selection of modules must comply with § 8(2) of the APSO.

### § 44 Repeat Examinations, Failed Examinations

- (1) The repetition of examinations is governed by § 24 of the APSO.
- (2) Failure of examinations is governed by § 23 of the APSO.

### § 45 Coursework (Pass/Fail Credit Requirements)

In the Master's Degree Program Science and Technology Studies (STS), no modules are completed with coursework.

### § 45 a Multiple Choice Tests

The conduct of multiple choice tests is governed by § 12 a of the APSO.

#### § 46 Master's Thesis

- (1) As part of the master's examination, each student must write a master's thesis according to § 18 of the APSO. <sup>2</sup>The thesis topic may be assigned and supervised by any expert examiners (Themensteller) involved in the degree program at the Technical University of Munich. <sup>3</sup>Expert examiners as stipulated in Sentence 2 are appointed by the Examination Board.
- (2) <sup>1</sup>Completion of the Master's Thesis module, as a rule, is the final examination requirement. <sup>2</sup>Upon request students may be granted early approval to commence work on the master's thesis if the objective of the thesis in the sense of § 18(2) APSO can be fulfilled under consideration of the progression of studies to date.
- (3) <sup>1</sup>The period between topic assignment and submission of the completed thesis must not exceed six months. <sup>2</sup>The thesis is considered presented and not passed if the student fails to submit it on time without valid reasons as specified in § 10(7) of the APSO. <sup>3</sup>30 credits are awarded for the Master's Thesis module. <sup>4</sup>The thesis may be written in either the German or the English language.
- (4) <sup>1</sup>The completion of the Master's Thesis module involves a research paper and a presentation on its content. <sup>2</sup>The presentation does not affect the grading.
- (5) <sup>1</sup>If the Master's Thesis module was not graded as at least "sufficient" (4.0), it may be repeated once with a new topic. <sup>2</sup>Students must renew their application to set the topic of the Master's Thesis module within six weeks of receipt of the grade.

### § 47 Passing and Assessment of the Master's Examination

- (1) The master's examination is deemed passed when all examinations required for the master's examination in accordance with § 43(1) have been passed and a plus credits account of at least 120 credits has been achieved.
- (2) ¹The module grade will be determined according to § 17 of the APSO. ²The overall grade for the master's examination will be calculated as the weighted grade average of the modules according to § 43(2) and the Master's Thesis module. ³The grade weights of the individual modules correspond to the credits assigned to each module. ⁴The overall assessment is expressed by the designation according to § 17 of the APSO.

### § 48 Degree Certificate, Diploma, Diploma Supplement

If the master's examination was passed, a degree certificate, a diploma, and a diploma supplement including a transcript of records are to be issued in compliance with § 25(1) and § 26 of the APSO.

### § 49 Entry into Force

- (1) <sup>1</sup>These regulations will enter into force on 1 October 2024. <sup>2</sup>They apply to all students who commence their studies at the Technical University of Munich as of the winter semester 2024/2025. <sup>3</sup>As an exception to Sentence 2, "Appendix 2: Aptitude Assessments" applies for all students who commence their studies at the Technical University of Munich as of the winter semester 2025/2026.
- (2) ¹At the same time, the Academic and Examination Regulations for the Master's Degree Program Science and Technology Studies (STS) at the Technical University of Munich dated 3 August 2016, most recently amended by § 1(34) of the Collective Amending Statute on the Number of Examining Commission Members for Aptitude Assessments dated 29 June 2020, cease to apply, unless the provision in § 49(1) Sentence 2 of these regulations apply. ²Students who commenced their studies at the Technical University of Munich prior to the winter semester 2024/2025 are to complete their studies in accordance with the regulations named in § 49(2) Sentence 1.
- (3) Students, who already commenced their upper-division courses at the Technical University of Munich before the point in time named in 1(2), can switch to the Academic and Examination Regulations in accordance with 1(1) upon request to the Examination Board.

#### **APPENDIX 1: Examination Modules**

#### 1. Required Modules

#### **Introductory Modules**

No.	Module name	Type of	ZV	Sem.	SWS	Credits	Type of	Duration	Weighting	Language
		Instructio					Examinatio	of	Factor	of
		n					n	Examinati		instruction
								on		
MCTS0025	STS 1: Practices and	SE		1	6	10	W			E
	Politics of Science and									
	Technology									
ED0341	STS 2: Philosophy of	SE		1	3	5	W			E
	Science and									
	Technology									
ED0342	STS 3: History of	SE		1	3	5	W			E
	Science and									
	Technology									
MCTS0026	Lecture Series &	2VO +		1	3	5	W			E
	Academic Skills	1UE								
	Total					25				

#### **Practical Research**

	Total				23			
MCTS00341	Practicing Research	SE	3	2	10	PA		Е
MCTS0058	Methods 2	SE	2	4	8	PA		E
MCTS0027	Methods 1	SE	1	3	5	ÜB		E

#### **STS-MINT**

MCTS0057	STS-MINT	2SE +	2	4	7	W		E
		2VO					1	

#### **Master's Thesis**

MCTS9901	Master's Thesis	Colloquiu	4	1	30	W (including		E or D
		m				P)		

#### 2. Elective Modules

The Examination Board regularly updates the elective modules course catalog. Any changes will be communicated no later than the beginning of the semester on the web pages of the Examination Board.

Elective modules amounting to a total of 15 credits from a maximum of three modules on different topics are required in the Core Topics in STS elective module section. Elective modules amounting to at least 20 credits from a maximum of four modules in four different fields are required in the Advanced Topics in STS elective module section.

At least four modules from the Core Topics in STS elective studies are offered in the summer semester and at least five modules from the Advanced Topics in STS elective studies.

The elective modules can be assigned to the "Philosophy of Science and Technology" or "History of Science and Technology" areas of specialization in accordance with § 37(3). The assignment is set and announced at the beginning of the semester with the respective content.

#### **Core Topics in STS**

No.	Module name	Type of Instructi on	Z V	Se m.	SW S	Credit s	Type of Examinati on	Duration of Examinati on	Weightin g Factor	Languag e of instructi on
AR30372	Core Topic: Publics & Participation	SE		2	2	5	W or PA			E
AR30385	Core Topic: Infrastructures & Design	SE		2	2	5	W or PA			E
ED0348	Core Topic: Risk & Security	SE		2	2	5	W or PA			E
ED0349	Core Topic: Epistemology & Ontology	SE		2	2	5	W or PA			E
ED0358	Core Topic: Co- construction of Technology & Users	SE		2	2	5	W or PA			E
MCTS00 30	Core Topic: Media & Digital Cultures	SE		2	2	5	W or PA			E
MCTS00 31	Core Topic: Ethics & Responsibility	SE		2	2	5	W or PA			E
MCTS00 42	Core Topic: Industries & Innovation	SE		2	2	5	W or PA			E
MCTS00 51	Core Topic: Gender & Diversity	SE		2	2	5	W or PA			E
MCTS00 59	Core Topic: Technoscience & Narrative Cultures	SE		2	3	5	PA			E
POL6080 1	Core Topic: Law, Science and Technology	SE		2	2	5	W or PA			E
POL6080 5	Core Topic: Law and Digitization in Action	SE		2	2	5	ÜB			Е
POL6080 7	Core Topic: Normativity and Technology	SE		2	2	5	ÜB			Е
WI00117 2	Core Topic: Politics & Governance	SE		2	4	5	W or PA or ÜB			E

WZ8110	Core Topic: Biomedicine & Health	SE	2	2	5	W or PA		Е
WZ8111	Core Topic: NatureCultures & Sustainability	SE	2	2	5	W or PA		Е
WZ8114	Core Topic: KnowledgeCultu res & Institutions	SE	2	2	5	W or PA		Е

#### **Advanced Topics in STS**

No.	Module name	Type of Instructi on	Z V	Se m.	SW S	Credit s	Type of Examinati on	Duration of Examinati on	Weighti ng Factor	Languag e of instructi on
AR30380	Advanced Topic: Publics & Participation	SE		3	2	5	W or PA			E
AR30384	Advanced Topic: Infrastructures & Design	SE		3	2	5	W or PA			E
ED0357	Advanced Topic: Risk & Security	SE		3	2	5	W or PA			E
ED0359	Advanced Topic: Co-construction of Technology & Users	SE		3	2	5	W or PA			E
ED0360	Advanced Topic: Epistemology & Ontology	SE		3	2	5	W or PA			E
MCTS003 2	Advanced Topic: Industries & Innovation	SE		3	2	5	W or PA			E
MCTS004 0	Advanced Topic: Media & Digital Cultures	SE		3	2	5	W or PA			E
MCTS004 1	Advanced Topic: Ethics & Responsibility	SE		3	2	5	W or PA			E
MCTS005 0	Advanced Topic: Gender & Diversity	SE		3	2	5	W or PA			E
SOT8608 09	Advanced Topic: Normativity and Technology	SE		3	2	5	W or PA			E
SOT8608 11	Advanced Topic: Law and Digitization in Action	SE		3	2	5	W or PA			E
WI001184	Advanced Topic: Politics & Governance	SE		3	4	5	W or PA or ÜB			E
WZ8113	Advanced Topic: Biomedicine & Health	SE		3	2	5	W or PA			E
WZ8115	Advanced Topic: KnowledgeCultu res & Institutions	SE		3	2	5	W or PA			Е
WZ8116	Advanced Topic: NatureCultures & Sustainability	SE		3	2	5	W or PA			Е

#### **Credit Total per Semester:**

Semester	Credits	Credits	Credits	Total Credits	Number
	Required Modules	Elective Modules	Master's		of
			Thesis		Exams
1	30			30	5
2	15	15		30	5
3	10	20		30	5
4			30	30	1

#### **Explanation**:

Sem. = semester; SWS = Semesterwochenstunden/weekly hours per semester; VO = Vorlesung/lecture; UE = Übung/exercise module; VI = Vorlesung mit integrierter Übung/lecture with exercise; PR = Praktikum/practical course; SE = seminar;

ZV = Zulassungsvoraussetzung/admission requirement (see § 42(1))

K = Klausur/written exam; LL = laboratory assignment; ÜB = Übungsleistung/practical credit requirements; LP = learning portfolio; B = Bericht/report; M = mündliche Prüfung/oral exam; W = wissenschaftliche Ausarbeitung/research paper; P = presentation; PA = project work; PP = examination parcours;

E = English; D = German

For written and oral exams, the Examination Duration column indicates the examination duration in minutes.

#### **Appendix 2: Aptitude Assessment**

Aptitude Assessment for the Master's Degree Program Science and Technology Studies (STS) at the Technical University of Munich

#### 1. Purpose of the Process

<sup>1</sup>Eligibility for the Master's Degree Program Science and Technology Studies (STS), in addition to the requirements according to § 36(1) Nos. 1 and 2, requires proof of aptitude according to § 36(1) No. 3 and in accordance with the following provisions. <sup>2</sup>The applicant's special qualifications and skills should, for example, correspond with the professional fields of science and technology policy, science and university management, (digital) science communication, and political advice. <sup>3</sup>Individual aptitude parameters are:

- 1.1 ability to do scholarly work and/or basic and methodologically sound research;
- 1.2 specialist knowledge from a bachelor's degree program in one of the subjects listed under § 36(1)1,
- 1.3 particular suitability for fields at the interface of engineering, natural, social, and human sciences,
- 1.4 adequate language skills, both oral and written,

#### 2. Aptitude Assessment Process

- 2.1 ¹Aptitude Assessment is conducted annually. ²The TUM Enrollment, Student Fees Payment, Leave of Absence and Disenrollment Regulations (ImmatS) of 6 February 2023 as amended, in particular § 6, apply to the Aptitude Assessment process.
- 2.2 ¹Applications for admission to the aptitude assessment process in accordance with § 6 of the ImmatS must be submitted to the Technical University of Munich together with the documents listed in No. 2.3 and in § 36(1) Nos. 1 and 2 no later than 31 May (absolute deadline) using the online application procedure. ²The diploma and the graduation certificate must be presented as proof of passing the Bachelor's degree program to the TUM Center for Study and Teaching Admissions and Enrollment five weeks after the first day of classes, at the latest. ³Otherwise, it will not yet be possible to commence the master's degree program in accordance with § 36 of these regulations.

#### 2.3 The application must include:

2.3.1 a transcript of records with modules amounting to at least 120 credits; 90 credits of these need to be indicated as examinations; for degree programs that are not subject to the "European Credit Transfer and Accumulation System" (ECTS), a transcript of records of at least two thirds of the achievements required for the bachelor's degree needs to be enclosed; at least half of the achievements required for the bachelor's degree need to be indicated as examinations; the transcript of records should, if possible, show how the individual subjects taken are weighted in terms of grading and workload; the transcript of records must be issued by the relevant examination authority or academic programs office,

- 2.3.2 the form issued by the TUM School of Social Sciences and Technology in which the applicant compiles the grades, credits, and weekly hours per semester of the required examinations (90 credits or half of the achievement required for the bachelor's degree),
- 2.3.3 Complete (without time gaps) curriculum vitae in English,
- 2.3.4 a written statement in English (max. 1 to 2 A4 pages) of the reasons for choosing the Master's Degree Program Science and Technology Studies (STS at the Technical University of Munich, in which the candidate explains the exceptional motivation that makes them particularly qualified for the Master's Degree Program Science and Technology Studies (STS) at the Technical University of Munich; exceptional motivation and commitment is to be demonstrated by providing details on program-related vocational training, internships, stays abroad, or program-related further education beyond the attendance and course requirements of the Bachelor's program, if necessary by appropriate documentation,
- 2.3.5 an essay written in English of one to three DIN A4 pages; the chairperson of the Commission may propose a choice of one or more topics; this must be communicated to the applicants by 15 December at the latest via the TUM School of Social Sciences and Technology website.
- 2.3.6 a declaration that the written statement giving the reasons for choosing the degree program and the essay are the applicant's own work, that they comply with the Statute of the Technical University of Munich on Safeguarding Good Academic Practice and Procedures in Cases of Academic Misconduct (TUM-SGwP), and that the applicant has clearly identified any ideas taken from outside sources.

#### 3. Aptitude Assessment Commission, Selection Committees

- 3.1 ¹Aptitude assessment is administered by the Aptitude Assessment Commission and the Selection Committees. ²The Aptitude Assessment Commission is responsible for preparing the aptitude assessment process, organizing it and ensuring a structured and standardized process for determining aptitude within the framework of these Regulations; it bears responsibility, insofar as no other body is specified by these Regulations or through delegation of its authority to another body. ³Selection Committees are to conduct the assessment process in accordance with No. 5 below, subject to No. 3.2 Sentence 11
- 3.2 <sup>1</sup>The Aptitude Assessment Commission consists of five members. <sup>2</sup>Members of the Commission are appointed by the Dean, in consultation with the Vice Dean of Academic and Student Affairs, from among the authorized examiners of the TUM School of Social Sciences and Technology, who are members of the degree program faculty. <sup>3</sup>At least three Commission members must be university educators within the meaning of the Bavarian Higher Education Innovation Act [Hochschulinnovationsgesetzes (BayHIG)]. <sup>4</sup>The departmental student council has the right to name a student representative to serve on the Commission in an advisory capacity. 5A deputy is to be appointed for each member of the Commission. <sup>6</sup>The Commission elects a chairperson and a deputy chairperson from among its members. <sup>7</sup>Procedures are governed by the paragraph on the procedural provisions of the TUM Charter as amended. 8The term in office of Commission members is 1 years. 9Extensions of the term of office and reappointments are possible. 10Urgent decisions that cannot be postponed can be made by the chairperson on behalf of the Commission; He/She must inform the Commission of such decisions without delay. 11The Academic Programs Office supports the Aptitude Assessment Commission, and the Selection Committees: the Commission the Office may delegate the

task of assessing formal admissions requirements in accordance with No. 4, as well as the determination of points to be awarded based on defined criteria for which there is no freedom of discretion involved. This includes, in particular, the conversion of grades and the calculation of the overall points earned by the applicant. The Office may also be involved in choosing the members of the Selection Committee from among the commissioners and assigning them to applicants.

3.3 <sup>1</sup>Each Selection Committee consists of two members of the TUM School of Social Sciences and Technology, who are authorized to conduct examinations in the degree program according to Sentence Art. 85(1) 1 of the Bavarian Higher Education Innovation [Hochschulinnovationsgesetzes (BayHIG)] in conjunction with the act governing examiners at institutions of higher education [Hochschulprüferverordnung]. <sup>2</sup>At least one member must be a university educator within the meaning of the Bavarian Higher Education Innovation Act [Hochschulinnovationsgesetzes (BayHIG)]. 3It is permissible to serve concurrently on both the Aptitude Assessment Commission and the Selection Committee. <sup>4</sup>Members of the Committee are appointed by the Commission for a term of 1 year; No. 3.2 Sentence 9 applies accordingly. <sup>5</sup>Different Selection Committees may be assigned to individual criteria and stages of the assessment process.

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

- 4.1 ¹Admission to the aptitude assessment process requires that all documentation specified in No. 2.2 has been submitted in a timely and complete fashion observing the rules of good academic practice. ²To determine whether the Code of Conduct for Good Academic Practice was observed, the essay will be analyzed using special plagiarism detection software.
- 4.2 ¹Applicants who have fulfilled the requirements according to No. 4.1 will be assessed according to No. 5. ²Applicants not suited for the program will receive a letter of rejection stating the grounds for rejection and informing them of legal remedies. ³Should the Selection Committee come to the conclusion that the Code of Conduct for Good Academic Practice has been significantly violated, the applicant will be excluded from the ongoing application procedure. ⁴Sentence 2 applies accordingly.

#### 5. The Aptitude Assessment Process

#### 5.1 First Stage

5.1.1 ¹It will be assessed, on the basis of the written application documents required under No. 2.3, whether an applicant is suitable for the program according to No. 1 (first stage of the aptitude assessment process). ²The candidate's application documents will be evaluated on a scale ranging from 0 to 59 points, 0 being the worst and 59 the best possible result:

The following criteria will be applied to the evaluation:

#### a) Grade

<sup>1</sup>The applicant will be awarded one point for each tenth that the average calculated from examinations in the amount of 90 credits is better than 4.0 or, in the case of degree programs that are not subject to the "European Credit Transfer System" (ECTS), the average calculated from half of the examinations required for the bachelor's degree program. <sup>2</sup>The maximum number of points is 30. <sup>3</sup>Negative points will not be awarded. <sup>4</sup>In the case of international degrees or if the grading system does not correspond with the TUM system, the grade converted based on the Bavarian formula will be applied.

<sup>5</sup>If the candidate has submitted a degree certificate containing more than 90 awarded credits with the application, the assessment will be made on the basis of the best graded modules in the amount of 90 credits. <sup>6</sup>The applicant needs to submit a list of the results together with the application in accordance with No. 2.3.2 and confirm its accuracy in writing.

<sup>7</sup>Insofar as this is done, the average is calculated from the best graded module examinations totaling 90 credits. <sup>8</sup>The average is calculated as a weighted grade average for the modules.

<sup>9</sup>The grade weights of the individual modules correspond to the credits assigned to each module. <sup>10</sup>If no list is submitted, the overall average of grades submitted by the candidate will be used to calculate the average.

#### b) Letter of Motivation

<sup>1</sup>The applicant's written statement will be evaluated by the respective Selection Committee and graded on a scale of 0 – 12 points. <sup>2</sup>The content of the written statement will be assessed using the following criteria in Sentence 3. <sup>3</sup>The applicants can

- 1. linguistically emphasize important points of their written statement in an appropriate way and phrase their application in a factual manner that is oriented to the target group,
- 2. convincingly explain their exceptional motivation for the master's degree program with arguments and meaningful examples, like program-related vocational training, internships, and stays abroad (see No. 2.3.4),
- 3. describe the relationship between their personal interests and the content of the degree program in a well-structured manner.

<sup>4</sup>The two Selection Committee members independently assess each of the criteria with equal weighting. <sup>5</sup>The points total will be calculated as the arithmetic means of the individual assessments, rounded up to the nearest full point.

#### c) Essay

<sup>1</sup>The essay will be evaluated by the respective Selection Committee and graded on a scale of 0 – 17 points. <sup>2</sup>The content of the essay will be assessed using the following criteria in Sentence 3. <sup>3</sup>The applicants can

- 1. linguistically emphasize important points of their reasoning in an appropriate way (2 points),
- 2. identify, describe, and reflect upon complex relationships of technology, science, and society using specific examples (maximum of 5 points),
- 3. phrase relevant questions precisely (maximum of 5 points),
- 4. outline a suitable research strategy (maximum of 5 points).

<sup>4</sup>The two committee members independently assess each of the criteria with the specified weighting. <sup>5</sup>The points total will be calculated as the arithmetic means of the individual assessments, rounded up to the nearest full point.

- 5.1.2 The points total in the first stage will be calculated as the sum of the individual evaluations, with decimal places rounded up.
- 5.1.3 ¹Applicants with at least 50 points will be deemed suitable. ²In those cases where it is determined that only some subject-specific requirements for the master's program are missing from undergraduate studies, the Commission may require that applicants complete separate modules. ³These conditions must be successfully met in the first year of study.
- 5.1.4 Applicants who have achieved less than 30 points fail the aptitude assessment.

#### 5.2 <u>Second Stage</u>

<sup>1</sup>The remaining applicants will be invited to an assessment interview. <sup>2</sup>In the second stage of 5.2.1 the aptitude assessment, the qualifications acquired in the bachelor's degree program and the result of the assessment interview are evaluated, whereby the qualification acquired in the bachelor's is to be weighted equally. <sup>3</sup>Interview appointments will be announced at least one week in advance. <sup>4</sup>Time slots for interviews must be scheduled before expiration of the application deadline. <sup>5</sup>The interview appointment must be kept by the applicant. <sup>6</sup>If 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 two weeks before the beginning of classes. <sup>7</sup>As а rule, interview

is conducted by video conference. <sup>8</sup>If the video or audio transmission is disrupted, the interview can be continued after the disruption has been resolved or a follow-up appointment can be scheduled. <sup>9</sup>In the event of repeated disruption, the aptitude assessment interview may be scheduled as a face-to-face meeting in exception to Sentence 7. <sup>10</sup>Sentences 8 and 9 do not apply if it can be proven that the applicant is responsible for the disruption. <sup>11</sup>In this case, the aptitude assessment interview will be assessed.

- 5.2.2 <sup>1</sup>The aptitude assessment interview is to be held individually for each applicant. <sup>2</sup>The interview will be held in English and last at least 20 but not more than 30 minutes for each applicant. <sup>3</sup>The interview will focus on the following topics:
  - 1. Exceptional motivation: The applicant has relevant qualifications that go beyond the knowledge and qualifications acquired in the bachelor's degree program, for example, program-related vocational training, internships, and stays abroad (see No. 2.3.4) (maximum of 7 points),
  - 2. explanations of the final thesis from the bachelor's program or/and on the previous works (maximum of 7 points),
  - 3. understanding complex relationships of science, technology, and society as well as ability to reflect on subject-related questions (based on outlining a research project on a topic suggested by the applicant) (maximum of 7 points),
  - 4. aptitude during the interview; applicants will be evaluated, for example, on their ability to convincingly present information using arguments and meaningful examples and appropriately respond to interview questions (maximum of 8 points).
  - <sup>4</sup>The above topics may also cover the documentation submitted according to No. 2.3. <sup>5</sup>Any subject-specific academic knowledge that is to be taught in the Master's Degree Program Science and Technology Studies (STS) will not affect the decision. <sup>6</sup>With the applicant's approval, a representative of the student body may sit in on the interview.
- 5.2.3 <sup>1</sup> Each Committee member independently assesses each of the four areas with weighting as indicated. <sup>2</sup>Each member of the Committee will grade the result of the interview on a scale from 0 to 29, 0 being the worst and 29 being the best possible result. <sup>3</sup>The points total will be calculated as the arithmetic mean of the individual evaluations. <sup>4</sup>Non-vanishing decimal places must be rounded up.
- 5.2.4 <sup>1</sup>The total number of points awarded in the second stage is the sum of the points from No. 5.2.3 and the points from No. 5.1.1 b) (grade). <sup>2</sup>Applicants with 30 or more points will be deemed suitable. <sup>3</sup>Applicants with an overall score of less than 30 points have failed the aptitude assessment.

#### 5.3 <u>Determination and Notification of Results</u>

<sup>1</sup>Applicants will be informed of the results of the aptitude assessment through official notification. <sup>2</sup>Applicants not suited for the program will receive a letter of rejection stating the grounds for rejection and informing them of legal remedies.

5.4 Candidate's suitability for the program, once determined in aptitude assessment, applies to all subsequent applications for this program.

#### 6. Documentation

<sup>1</sup>The aptitude assessment process must be documented, in particular the names of the participating members of the Selection Committee, the evaluation of the first and second stages, as well as the overall result. <sup>2</sup>The aptitude assessment interview must be documented, including the date, duration, and location of the assessment, the names of the participating Selection Committee members, the applicant's name, and a list of main topics of discussion in bullet points.

#### 7. Repeat Aptitude Assessments

Applicants who have failed an aptitude assessment may apply once to repeat the aptitude assessment process.

Executed following a resolution of the Senate of the Technical University of Munich dated 10 July 2024 and approval of the President of the Technical University of Munich on 12 September 2024.

Munich, 12 September 2024

**Technical University of Munich** 

signed by Thomas F. Hofmann President

These regulations were officially published online on the website <a href="https://www.tum.de/satzungen">https://www.tum.de/satzungen</a> on 12 September 2024. In addition, access is available during office hours on the premises of the TUM Center for Study and Teaching - Legal Affairs, Arcisstraße 21, 80333 Munich, Room 0561. Day of proclamation is therefore 12 September 2024.