

**Please note:**  
**Legally binding is exclusively the original German  
version!**

**Study and examination regulations  
for the Master's degree in Paper Technology  
(for paper technology engineers)  
at the University of Applied Sciences Munich**

from 31.08.2004

*(as amended by the Sixth Amendment Statute of 25.05.2018)*

Based on Art. 13 Para. 1 Sentence 2, Art. 43 Paras. 4 and 5, Art. 58 Para. 1, Art. 61 Paras. 2 and 3, and Art. 66 Para. 1 of the Bavarian University Act (BayHSchG), the Munich University of Applied Sciences enacts the following statutes:

**§ 1**

**Purpose of the study and examination regulations**

These study and examination regulations serve to fill out and supplement the Framework Examination Regulations (RaPO) for the Universities of Applied Sciences of October 17, 2001 (BayRS 2210-4-1-4-1-WFK) and the General Examination Regulations of the Munich University of Applied Sciences of January 29, 2008 in their respective versions.

**§ 2**

**Study Goal**

- (1) Building on a degree in paper technology, the master's program imparts the knowledge and skills required to perform demanding managerial tasks and management responsibility in the paper and carbon fiber industry, including in an international context.
- (2) <sup>1</sup>In addition to deepening specialist knowledge, the master's program also promotes qualifications that go beyond the subject itself, such as social competence, environmental responsibility, cooperativeness and communication skills. <sup>2</sup>This enables graduates to work successfully in groups and to lead teams in a creative and motivating manner.
- (3) Courses taught primarily in English are designed to increase the English language competence of German-speaking students and, at the same time, to facilitate the entry of foreign students into the program.
- (4) <sup>1</sup>The master's program prepares graduates for challenging jobs and rapid entry into management positions in the internationally active paper industry. <sup>2</sup>It can also be the basis for further scientific qualification.

**§ 3**

**Qualification for the study**

- (1) Prerequisites for this master's degree program are:
  1. Proof of completion of at least six theoretical semesters of study in paper technology at a German university or a university of applied sciences.

of an equivalent degree. Applicants who have completed their first degree with an overall examination result of "good" or better are admitted to this master's degree program without any further suitability procedure. Applicants with an overall examination result of less than 2.5 must prove their professional suitability within the framework of an aptitude test in accordance with § 4 Para. 2 of these regulations.

2. Proof of a good command of written and spoken English. Proof is provided by taking the TOEFL test (Test of English as a Foreign Language) with an above-average score (at least 80 points according to the current Internet-based test), TOEIC-Listening & Reading and TOEIC-Speaking & Writing (combined at least 800 points), successful completion of the IELTS test (International English Language Testing System) with at least an average score of 6.0 or successful participation in the UNIcert® II or III English language certificate. Furthermore, proof can be provided by a stay abroad in an English-speaking country of at least one year in total. The proof required according to sentences 1 and 2 must not be older than two years. In cases of doubt, the examination board shall decide.
  3. Proof of practical engineering work in the paper industry or its supply industries of at least 12 weeks. In cases of doubt, the board of examiners decides.
- (2) The qualification criteria specified in paragraph 1, points 2 and 3, must be demonstrated no later than one semester after the start of the master's program in the case of full-time studies and no later than one year after the start of the master's program in the case of part-time studies.
- (3) <sup>1</sup>The Examination Commission (§ 9) decides on the equivalence of university degrees or equivalent degrees according to Paragraph 1 No. 1, taking into account Art. 63 Para. 1 BayHSchG. <sup>2</sup>If the equivalence is not fully given, the examination board can stipulate as a condition that additional proof of achievement must be provided.

#### **§ 4**

#### **Admission and suitability procedure**

- (1) <sup>1</sup>Admission to the master's program in the first semester is possible in the winter semester and summer semester of an academic year. <sup>2</sup>The written application with the required documents can be submitted to the Faculty of Supply and Building Services Engineering, Process Engineering Paper and Packaging, Printing and Media Technology at the Munich University of Applied Sciences throughout the year.
- (2) The chairperson of the examination board, together with another member, decides whether the qualification requirements for the master's program have been met.
- (3) <sup>1</sup>The aptitude test according to § 3 (1) No. 1 sentence 2 is carried out on the basis of the application in due form and time, the application documents submitted and a 20-40 minute interview to which the applicant is invited (admission interview). <sup>2</sup>The subjects of the interview are knowledge of chemistry, mathematics and physics, as well as adequate English language skills. <sup>3</sup>The applicant must demonstrate the ability to perform interdisciplinary scientific work and to make decisions based on structured, systematic approaches to solving technical problems.
- (4) <sup>1</sup>The aptitude test is carried out by two professors or scientific assistants or lecturers of the Faculty of Supply and Building Services Engineering, Process Engineering Paper and Packaging, Printing and Media Technology, who are appointed by the examination board.

and at least one of whom performs teaching duties in the master's program. <sup>2</sup>The aptitude test is passed if both examiners agree on the grade "successfully passed".

- (5) <sup>1</sup>A record of the aptitude test must be made, showing the date and place of the interview, its topics, the names of the candidate, the examiners and the result. <sup>2</sup>The minutes must be signed by the examiners.
- (6) As a rule, applicants are notified of the results of the aptitude test at least one month before the start of their studies.
- (7) In case of rejection, the application is possible for another date. A third application is excluded.

## **§ 5**

### **Structure of the program and standard period of study**

- (1) <sup>1</sup>The master's program is offered as a full-time program or as a part-time program. <sup>2</sup>Individual courses can also be offered as distance learning. <sup>3</sup>Details is regulated by the curriculum.
- (2) <sup>1</sup>The standard period of study for the full-time program is three theoretical semesters of study, including a master's thesis. <sup>2</sup>The standard period of study for the part-time program is six semesters of theoretical study, including a master's thesis.
- (3) In part-time studies, a maximum of 20 ECTS credits may be earned per semester.
- (4) <sup>1</sup>If a student can prove that he/she has completed a university degree for which less than 210 ECTS credits (but at least 180 ECTS credits) have been awarded, the prerequisite for passing the Master's examination is proof of the missing credits from the relevant undergraduate degree program offered by the Munich University of Applied Sciences. <sup>2</sup>The Examination Commission determines which competencies (learning outcomes) the student has not acquired in his/her completed first degree program in comparison with a university degree program comprising 210 ECTS credits and then determines the modules and examinations that the student must make up and take. <sup>3</sup>The modules determined by the examination board are announced to the students with the matriculation. <sup>4</sup>The students are enrolled in the Master's degree program Paper Technology (for engineers in paper technology) for the completion of the missing ECTS credits.
- (5) There is no entitlement to the Master's program being carried out if there is an insufficient number of applicants.

## **§ 6**

### **Crediting of competences acquired outside the university sector**

- (1) <sup>1</sup>The examination board decides on the recognition of knowledge and skills acquired outside the university upon written application by a student. <sup>2</sup>The application must be accompanied by evidence of the examination achievements and the competences attained.
- (2) <sup>1</sup>The examination board of the master's degree program Paper Technology (for engineers of paper technology), if necessary with a specialist lecturer, examines the

Equivalence of the acquired competences on the basis of the submitted evidence in comparison with the study objectives of the module catalog of the aforementioned Master's degree program. <sup>2</sup>In case of ambiguity, the student must prove his/her competences acquired outside the university in a 30-minute examination interview with a representative of the examination board and a specialist lecturer. <sup>3</sup>A transcript of the examination discussion is to be prepared and signed by the examiners. <sup>4</sup>The examination interview is passed if both examiners give the following grade "passed with success" is issued.

- (3) <sup>1</sup>The examination board will inform the examination administration of the Munich University of Applied Sciences about the competences to be credited to the modules of this Master's program, the partial or final module grades to be credited, if applicable, as well as the ECTS credit points to be credited. <sup>2</sup>In the case of a rejection of a credit, reasons must be given.
- (4) Competencies acquired outside of higher education can be credited and transferred up to half of the ECTS credits allocated to the master's degree program.

## **§ 7 Modules and exams**

- (1) <sup>1</sup>The modules, their number of hours, the type of courses, the number of ECTS credits, the form and procedure of the examinations, the processing times for written examinations and the duration of oral examinations as well as the grade weights for the formation of the final module grades are specified in the appendix to these study and examination regulations. <sup>2</sup>Details are regulated by the study plan.
- (2) <sup>1</sup>The modules are compulsory modules and subject-specific elective modules.  
  
<sup>2</sup>1. compulsory modules are the modules that are obligatory for all students of the master's program.  
<sup>3</sup>Students must make a specific choice in the subject-specific elective modules in accordance with these study and examination regulations and the study plan. <sup>4</sup>The selected modules are treated as compulsory modules.
- (3) Furthermore, students may additionally choose subjects and modules that are not mandatory for the achievement of the degree objective from the entire range of courses offered by the Munich University of Applied Sciences (elective modules).

## **§ 8 Study plan**

- (1) <sup>1</sup>The Faculty of Supply and Building Services Engineering, Process Engineering Paper and Packaging, Printing and Media Engineering shall draw up a study plan to ensure the courses offered and to provide information to the students, from which the course of study is detailed. <sup>2</sup>The study plan is adopted by the Faculty Council and is to be published by the university. <sup>3</sup>The announcement of new regulations must be made at the latest at the beginning of the lecture period of the semester which they affect for the first time.
- (2) The curriculum shall contain, in particular, regulations and information on:
  1. the distribution of the semester hours per week and ECTS credits per module and study semester, the type of course as well as the language of instruction and examination in the individual subjects if this is not German and this is not conclusively regulated in the appendix,

2. the catalog of elective subjects that can be chosen by students of the Master's program, their number of hours and ECTS credits, the type of courses as well as the language of instruction and examination in these modules, if this is not German,
  3. the study objectives and study contents of the individual modules,
  4. more detailed provisions on the course-related performance and participation certificates,
  5. Regulations for the arrangement of part-time studies
  6. more detailed provisions on which modules and courses are offered in the form of distance learning and regulations on their design,
  7. the duration of the individual tests,
  8. more detailed provisions on the preparation and grading of the project work and
  9. more detailed provisions on the form and organization of the master's thesis.
- (3) <sup>1</sup>There is no entitlement to the fact that all scheduled elective modules and elective modules in the subject area are actually offered. <sup>2</sup>Similarly, there is no entitlement to courses being held if there is an insufficient number of participants.

## **§ 9 Examination board**

- (1) For the master's program Paper Technology (for engineers in paper technology), an examination board is formed consisting of three professors from the Faculty of Supply and Building Services Engineering, Process Engineering Paper and Packaging, Printing and Media Technology who teach in the master's program.
- (2) <sup>1</sup>The Faculty Council elects the chairperson of the Examination Commission and his/her deputy. <sup>2</sup>The examination board can transfer examination and decision-making powers to its chairperson in accordance with these statutes.

## **§ 10 Master thesis**

- (1) <sup>1</sup>The master thesis is a scientific paper. <sup>2</sup>In it, the student should demonstrate that he or she is able to work independently and scientifically on a demanding task in the field of paper technology and that he or she can develop, evaluate and effectively implement solution strategies.
- (2) <sup>1</sup>The topic of the master's thesis is issued at the beginning of the second semester at the earliest. In the case of part-time studies, this period is extended accordingly. <sup>2</sup>The issue of the topic requires that the final module grade "sufficient" or better has been achieved in at least 9 of the modules listed in the appendix in lines 1 - 14.

- (3) Only professors and lecturers who teach in this Master's program can be considered as task setters and supervisors for Master's theses.
- (4) <sup>1</sup>The processing time of a Master's thesis, from the time the task is set to the time of submission, is a maximum of six months. <sup>2</sup>At the candidate's request, the examination board can extend the deadline by a maximum of three months in agreement with the person who set the task. <sup>3</sup>If the deadline is not met, the master's thesis will be graded "insufficient".
- (5) <sup>1</sup>If a master's thesis is assessed with the grade "not sufficient", it can be repeated once with a new topic. <sup>2</sup>The new topic must be assigned no later than one month after notification of the result of the failed master's thesis. <sup>3</sup>With regard to the processing time, the regulation of paragraph 4 applies.
- (6) The master thesis is to be written in English.
- (7) <sup>1</sup>A Master's thesis can be written as an individual or as a group work. <sup>2</sup>In the case of a group thesis, the contribution of each student to be assessed as an examination performance must be clearly delineated on the basis of the specification of sections, page numbers or other criteria that enable clear assignment and must be able to be assessed as an individual performance.

## § 11

### Evaluation of examinations and overall examination result

- (1) The differentiated evaluation of the examination performances is carried out with the grade number:
 

1,0; 1,3	=	very good;
1,7; 2,0; 2,3	=	good;
2,7; 3,0; 3,3	=	satisfactory;
3,7; 4,0	=	sufficient;
5,0	=	not sufficient.
- (2) For the calculation of the overall examination result, the final grades of all modules and the grade of the master thesis are weighted according to their respective ECTS credits.
- (3) In the Master's examination certificate, the underlying grade values with one decimal place are added to the final grades in parentheses.
- (4) <sup>1</sup>The modules to be made up in accordance with the decision of the Examination Committee pursuant to § 5 (4) are listed in the Master's examination certificate. <sup>2</sup>However, the final module grades achieved in the process are not included in the calculation of the overall examination result.
- (5) The assignment of a relative ECTS grade for the overall examination result follows the procedure specified by the Examination and Internship Department of the Munich University of Applied Sciences.

## § 12

### Passing the Master's examination

<sup>1</sup>The Master's examination is passed if the student can prove a total of 300 ECTS credits from the studies according to § 3 para. 1 no. 1, from additional credits according to § 3 para. 3 sentence 2 and § 5 para. 4 of these statutes as well as this Master's degree program. <sup>2</sup>At least 90 ECTS credits according to the annex to this degree program must be proven.

**§ 13**  
**Master's examination certificate**

A certificate is issued for passing the Master's examination in accordance with the Annex to the General Examination Regulations of the Munich University of Applied Sciences.

**§ 14**  
**Academic degree**

- (1) On the basis of the successful completion of the Master's examination, the academic degree of "Mas- ter of Engineering", in short form: "M.Eng.
- (2) A certificate is issued on the award of the academic degree in accordance with the respective model in the Annex to the General Examination Regulations of the Munich University of Applied Sciences.

**§ 15**  
**Entry into force**

These study and examination regulations come into force with effect from March 15, 2004.

**Attachment:**

**Overview of modules and examinations in the master's degree program Paper Technology (for paper technology engineers) at the Munich University of Applied Sciences**

1) Lfd. No.	2) Modules <sup>1</sup>	3) SWS	4) ECTS-Credit-points <sup>2</sup>	5) Type of teaching event <sub>1</sub>	Exams	
					6) Form of examination and processing time written and duration oral exams in minutes <sub>1,3</sub>	7) Weighting for the formation of the final module grade
1	Chemical Engineering	4	5	SU, Ü, Pr, Ex	schrP, 120-240	1
2	Paper Chemistry	4	5	SU, Ü, Pr, Ex	schrP, 90-180	1
3	Minerals	4	5	SU, Ü, Pr, Ex	schrP, 90-180 <sup>6</sup>	1
4	Automation I	4	5	SU, Ü, Pr, Ex	schrP, 90-180	1
5	Automation II	4	5	SU, Ü, Pr, Ex	oralP, 15-30	1
6	Board and Paper Technology I	4	5	SU, Ü, Pr, Ex	schrP, 90-180 <sup>6</sup>	1
7	Board and Paper Technology II	4	5	SU, Ü, Pr, Ex	oralP, 15-30 <sup>6</sup>	1
8	Coating I	4	5	SU, Ü, Pr, Ex	schrP, 90-180	1
9	Coating II	4	5	SU, Ü, Pr, Ex	oralP, 15-30 <sup>6</sup>	1
10	General Management	4	5	SU, Ü, Pr, Ex	schrP, 90-180	1
11	Project Management and Intercultural Communication	4	5	SU, Ü, Pr, Ex	oralP, 15-30	1
12	Statistics and Design of Experiments	4	5	SU, Ü, Pr, Ex	schrP, 90-180	1
13	Technical Elective	41,5	51,5	SU, Ü, Pr, Ex	2 exams <sup>1,5</sup>	Per examination performance: 0.5
14	General Elective	41,5	51,5	SU, Ü, Pr, Ex	2 exams <sup>1,5</sup>	Per examination performance: 0.5
15	Master Thesis		20		MA, Col <sup>4</sup>	1 (MA)
	Total SWS and ECTS credits:	56	90			



## **Notes:**

- <sup>1</sup> The details are determined by the Faculty Council in the curriculum.
- <sup>2</sup> One ECTS credit corresponds to a workload of 30 working hours.
- <sup>31</sup> In the case of a grade of "not sufficient" in an examination performance, the final module grade "not sufficient" is awarded. <sup>2</sup>A final module grade of at least sufficient and the evaluation of the master thesis with the grade "sufficient" or better are prerequisites for passing the master's examination.
- <sup>4</sup> The award of the grade "successfully passed" is a prerequisite for passing the Master's examination.
- <sup>5</sup> <sup>1</sup>In the *Technical Elective* module, technical and scientific content is taught, and in the *General Elective* module, non-technical content is taught. <sup>2</sup>The modules *Technical Elective* and *General Elective* are each examined with two written examinations (duration 90 - 180 minutes) or with two oral examinations (duration 20 - 45 minutes) or with two project papers or with a combination of term paper and presentation. <sup>3</sup>Both examinations are weighted in the ratio 0.5 : 0.5 to form the final module grade.
- <sup>6</sup> Proof of participation in the internship are written laboratory reports (five to ten pages) with 75% attendance in the internship, which have been evaluated "successfully passed".

## **Abbreviations:**

ECTS	Credits according to the European Credit Transfer and Accumulation System	oralP	oral examination	SU	seminar teaching
Ex	Excursion	Pr	Internship	SWS	Semester hours
Kol	Colloquium	schrP	written exam	Ü	Exercise
MA	Master thesis				