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**Programme and Examination Regulations  
for the master's degree programme in  
Electrical Engineering  
at Kempten University of Applied Sciences  
(SPO EE-Ma/HKE)  
dated 8 July 2016**

*Statutory amendment version dated 13 February 2026*

On the basis of Art. 13 para. 1 sentence 2, Art. 57 para. 2 sentence 4, Art. 58 para. 1 sentence 1, Art. 61 para. 2 sentence 1 and Art. 66 para. 1 of the Bavarian Higher Education Act (BayHSchG), dated 23 May 2006 (GVBl p. 245, BayRS 2210-1-1-WFK), Kempten University of Applied Sciences issues the following

**S t a t u t e :**

**§ 1**

**Purpose of the Programme and Examination Regulations**

These programme and examination regulations are issued in fulfilment of Art. 84 paragraphs 2 and 3 BayHIG and serve to complete and supplement the University Examination Regulations ("APO") for Kempten University of Applied Sciences, dated 26 July 2023, in its respectively applicable versions.

**§ 2**

**Degree programme objectives**

The master's degree programme in Electrical Engineering is designed as an application-oriented, consecutive degree programme conducted in English. It is intended to qualify graduates of bachelor's degree programmes in Electrical Engineering and Information Technology, and comparable fields, to perform outstanding work in planning, developing and operating electrical engineering, electronic and information technology systems; also for application-oriented research. Accordingly, the subject matter is aimed at thoroughly consolidating methodological skills and acquiring practically oriented specialist knowledge in various areas of electrical engineering and information technology. Additionally, in particular, students shall be trained in conducting independent scientific work, interdisciplinary thinking, teamwork and leadership skills in an international environment.

### **§ 3**

#### **Standard duration of studies and structure of the degree programme, part-time study**

- (1) This degree programme comprises three semesters of full-time study. The first two semesters include lectures, tutorials and practical classes running in modules with at least 4 contact hours per week ("SWS" in German), or 5 Credit Points according to the European Credit Transfer System (ECTS). The third semester is devoted to producing the master's thesis, which, in the interest of rapidly integrating students into practical work, can also be completed in collaboration with industry. The master's thesis is accompanied by a series of seminars. It is possible to start studying on the master's degree programme in either the summer or winter semester of an academic year.
- (2) <sup>1</sup>Alternatively, the degree programme can also be completed part-time, <sup>2</sup>spread over six semesters. <sup>3</sup>In this case, the first four semesters include lectures, tutorials and practical classes running in modules with at least 4 contact hours per week ("SWS" in German), or 5 Credit Points according to the European Credit Transfer System (ECTS). <sup>4</sup>The fifth and sixth semesters are devoted to producing the master's thesis. <sup>5</sup>The entry criteria for part-time study are the same qualifications as required for the full-time degree programme. <sup>6</sup>Part-time students must declare this status to Academic Registry when they commence the degree programme. <sup>7</sup>(deleted)<sup>1</sup>

### **§ 4**

#### **Eligibility for this degree programme**

- (1) <sup>1</sup>To be eligible for this programme, you must have completed a bachelor's or German "Diplom" degree in Electrical Engineering and Information Technology at a German institution of higher education, or a degree of equivalent value. <sup>2</sup>If your bachelor's degree was earned with less than 210 Credit Points, but at least 180 Credit Points, by the end of the first year of studying on this degree programme, at the latest, you must have made up the deficit in Credit Points<sup>2</sup> from the university's undergraduate courses to reach the skills level of 300 Credit Points. <sup>3</sup>The Examinations Committee determines which modules are to be completed retrospectively. <sup>4</sup>(deleted)<sup>3</sup>

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<sup>1</sup> § 3 para. 2 sentence 7 – deleted with effect from 1 October 2026 by statutory amendment dated 13 February 2026; this amendment applies to students who start to study in the first semester on the master's degree programme in Electrical Engineering in Winter Semester 2026/2027 or later.

<sup>2</sup> § 4 para. 1 sentence 2 – revised with effect from 20 December 2018 by statutory amendment dated 13 December 2018; this amendment applies to all students who start to study in the first semester on the master's degree programme in Electrical Engineering in Summer Semester 2019 or later.

<sup>3</sup> § 4 para. 1 sentence 4 deleted with effect from 1 October 2024 by statutory amendment dated 24 April 2024. This amendment applies to students starting to study in the first semester on the master's degree programme in Electrical Engineering from Winter Semester 2024/2025 onwards.

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- (2) Admission to this master's degree programme is also open to graduates who have qualified on comparable foreign degree programmes. The Examinations Committee shall decide on a case-by-case basis whether an applicant has the relevant qualifications, based on their transcript of records.
- (3) Additionally, applicants must prove sufficient written and spoken language skills in English. The following minimum scores must be achieved in either the TOEFL test (Test of English as a Foreign Language) or the IELTS test (International English Language Testing System) to fulfil this requirement:
- |                                  |             |
|----------------------------------|-------------|
| Internet-based TOEFL test (iBT): | 75.0 points |
| IELTS test:                      | 5.5 points  |
- Graduates from a degree programme conducted in English are deemed to have proved this level of proficiency. The same applies to students who have achieved a grade of at least 2.5 ("good") in a regular compulsory or compulsory elective module in "English" during their studies.
- (4) Applicants who are neither Germans within the meaning of the Basic Law nor persons who are deemed equivalent to Germans by law, but who are nationals of another member state of the European Union or a third country and who have not obtained their first degree or higher education entrance qualification at a German-speaking educational institution, must, in accordance with Art. 88 para. 9 BayHIG in conjunction with the Framework Regulations on German Language Examinations for Studies at German Universities ("RO-DT"), provide proof of the basic knowledge of the German language required for their studies at level A1 of the Common European Framework of Reference for Languages (CEFR) within their first year of study, at the latest.<sup>4</sup>
- (5) If the curriculum for part of the degree programme involves sending students to a foreign partner university, applicants must also fulfil that institution's admission and entry requirements.
- (6) Graduates from the degree programmes stipulated in paragraph 1 may be credited with coursework and examinations towards this master's degree programme; Art. 86 para. 1 BayHIG remains unaffected.<sup>5</sup> The Examinations Committee decides on this matter.

## **§ 5**

### **Modules**

- (1) The modules, the corresponding Credit Points and the number of contact hours per week ("SWS"), the type of courses, the associated examinations and possible coursework relating to studies are set out in the appendix to this statute.

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<sup>4</sup> § 4 para. 4 amended with effect from 21 November 2023 by statutory amendment dated 17 November 2023

<sup>5</sup> § 4 para. 6 sentence 1 amended with effect from 21 November 2023 by statutory amendment dated 17 November 2023.

- (2) All modules are either compulsory, compulsory elective, or elective.
1. Compulsory modules are mandatory for all students on this master's degree programme.
  2. Compulsory electives are chosen from the alternatives on offer. Each student must select a specific number of these modules in accordance with these Programme and Examination Regulations. Five compulsory elective modules must be taken. The selected modules are treated as compulsory modules.
  3. Elective modules are not mandatory for achieving the learning objective. Students can choose to take them additionally from the range of master's degree programmes offered by the participating universities of applied sciences. If completed successfully, elective modules are listed on the official academic record, indicating the Credit Points earned and the grade achieved. However, they do not contribute to the final overall grade.
- (3) This master's degree programme comprises a total of 90 Credit Points. Of these, 35 Credit Points are allocated to compulsory modules, 25 Credit Points to compulsory elective modules, and 30 Credit Points to the final thesis.

## **§ 6**

### **Curriculum and module handbook**

- (1) In order to fix the range of courses on offer and to provide students with up-to-date information, the responsible faculty compiles a curriculum detailing how the degree programme is structured. The curriculum is adopted and announced by the Faculty Council. New regulations must be announced no later than the beginning of the lecturing period for the semester that they affect for the first time. The curriculum specifies the provisions of these Programme and Examination Regulations, in particular with regard to the following points:
1. The contact hours allocated per week ("SWS"), Credit Points per module, in which semester of study, and the type of course.
  2. The subject-specific compulsory elective modules offered, stating the number of contact hours per week, the Credit Points, and the type of course.
- (2) The following details are recorded in the module handbook:
1. Learning objectives, course content, any prior knowledge required, and literature references for each individual module.
  2. Module-specific information about assessments and examinations, together with any aids permitted in examinations.
- (3) There is no entitlement to all the envisaged compulsory elective and elective modules actually being offered. In the same way, there is no entitlement that such courses will run in the case of insufficient numbers of participants.
- (4) For the purpose of fixing the courses on offer and informing students, an enrolment procedure is carried out for the compulsory elective modules and elective

modules. Students can withdraw once from a compulsory elective module or elective module that they committed to taking.

## **§ 7**

### **Enrolment procedure for compulsory elective modules and elective modules**

- (1) In addition to ensuring high-quality teaching, the aim of these enrolment regulations is to enable all students who study in accordance with the relevant Programme and Examination Regulations to finish studying for the degree within the standard duration of studies.
- (2) In order to also ensure equal opportunities for students regarding individual modules or courses with a maximum number of participants, a binding enrolment procedure is conducted.
- (3) If a maximum number of participants has been set by the Faculty Council, the selection is made from amongst those students who
  - are enrolled on the degree programme, and
  - have signed up for the compulsory elective modules or the elective modules by the deadlines set by the Faculty, as follows:
    1. First priority for admission is given to students whose progression with studies requires them to attend a compulsory elective module.
    2. In second priority, the remaining places for compulsory elective modules are allocated according to progression with studies. The decisive factor here is the number of Credit Points that the student has earned to date.
    3. Third priority applies to any remaining places for elective modules.
    4. In the case of equal admission priority, the progression with studies according to the criteria cited in no. 2 is also decisive. In the case of equal prerequisites, a lottery procedure shall be carried out.

## **§ 8**

### **Study abroad, partner universities**

- (1) Students can apply in advance for recognition of the studies that they plan to complete abroad. If studying within the framework of the European Union's Erasmus programme, a Learning Agreement must be completed for this purpose. The Examinations Committee decides on accreditation of compulsory or compulsory elective modules.
- (2) Students must apply to get their grades converted for coursework completed abroad, in the manner specified by the Examinations Committee.
- (3) Where cooperation agreements exist, any equivalent compulsory or compulsory elective modules from domestic and foreign partner universities that are

specified in the respective agreements can be recognised upon request without needing to examine each individual case.

## **§ 9**

### **Regular dates and deadlines, repetition of module examinations**

- (1) The provisions of § 15 in the University Examination Regulations ("APO") for Kempten University of Applied Sciences apply with regard to regular dates and deadlines.<sup>6</sup>
- (2) <sup>1</sup>If an examination has been awarded the grade "insufficient", it can be repeated once. <sup>2</sup>A second resit of an examination is possible for a maximum of three modules. <sup>3</sup>The deadlines according to § 19 para. 4 sentences 2 and 3 APO apply to repeat examinations.<sup>7</sup>

## **§ 10**

### **Inspection of examination papers**

- (1) During the first four weeks of the semester after grades have been announced, individual written examinations can be inspected from the previous semester. The examiner shall determine the time and place for the inspection.
- (2) If the inspection date falls during a practical semester or semester abroad, the deadline for inspecting failed examinations may be extended by one semester if proof of the period being spent abroad has been provided.
- (3) Applications for inspection in accordance with paragraph 2 must be submitted in writing to the respective examiner within the first 4 weeks of the semester following the announcement of grades; the examiner shall determine the time and place of the inspection within the first 4 weeks of the semester following the practical semester or semester abroad.

## **§ 11**

### **Examinations Committee**

- (1) An Examinations Committee is formed for the master's degree programme in Electrical Engineering, which, in addition to the chairperson, includes at least two other full-time professors in the Faculty of Electrical Engineering who teach on the degree programme.
- (2) The Faculty Council appoints the chairperson and the other members of the Examinations Committee.

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<sup>6</sup> § 9 para. 1 amended with effect from 21 November 2023 by statutory amendment dated 17 November 2023

<sup>7</sup> § 9 para. 2 sentence 3 amended with effect from 21 November 2023 by statutory amendment dated 17 November 2023.

## **§ 12**

### **Master's thesis**

- (1) In order to earn the master's degree, students must complete a master's thesis. In producing their master's thesis, students are expected to demonstrate their ability to apply the knowledge and skills acquired during their studies to complex, application-oriented tasks in an independently written academic thesis.
- (2) The master's thesis is produced either at Kempten University of Applied Sciences, at one of the partner universities, or in cooperation with industry.
- (3) To register for the master's thesis, students must already have earned at least 40 Credit Points, and have passed the scientific project.
- (4) The time allowed for completing the master's thesis is six months for full-time students and 12 months for part-time students. In the event of special circumstances for which the student is not to be held accountable, the deadline can be extended by a maximum of three months for full-time students and by a maximum of six months for part-time students. A written application to this effect must be submitted to Academic Registry.
- (5)<sup>8</sup> <sup>1</sup>The thesis must be written in English. <sup>2</sup>Pursuant to § 18 no. 9 sentence 2 of the University Examination Regulations for Kempten University of Applied Sciences ("APO"), the written presentation of the completed final thesis must be submitted to Academic Registry in the form of an electronically legible PDF file. <sup>3</sup>The examiner can request a printed copy of the written thesis.
- (6) The results of the master's thesis are to be presented in a seminar. This will be taken into account in the assessment of the master's thesis.
- (7) If the master's thesis has been awarded the grade "insufficient", it is deemed to have been failed. It can be repeated once.  
In the official academic record on the master's certificate, the classification for the master's thesis is further specified with the precise grade, to one decimal place, in brackets.

## **§ 13**

### **Assessment of examination performances and overall examination grade**

- (1) Examination performances can be awarded the following grades:

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	= insufficient

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<sup>8</sup> § 12 para. 5 revised with effect from 19 July 2024 by statutory amendment dated 11 July 2024.

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- (2) To calculate the overall grade achieved on the master's degree programme, the individual grades of all examinations are weighted according to their Credit Points. The overall grade is calculated from the arithmetic mean of the weighted individual grades rounded down to one decimal place.
- (3) A student is deemed to have passed this master's degree programme if all coursework and examinations amounting to 90 Credit Points have been completed with a grade of at least "sufficient".
- (4) In the official academic record on the master's certificate, the underlying grade values, to one decimal place, are added in brackets to the individual grades.

## **§ 14**

### **Master's official academic record, academic degree**

- (1) An official academic record certifying successful completion of the master's degree programme is issued in accordance with the valid appendix to the Examination Regulations for Kempten University of Applied Sciences, listing all the individual grades and Credit Points for each module and the master's thesis.
- (2) In addition, a Diploma Supplement is issued, describing the degree programme and the academic achievements. An English "Transcript of Records" also details the examination achievements.
- (3) In addition to the overall examination grade (the "absolute grade"), the actual percentage of graduates achieving each absolute grade is shown in the Diploma Supplement, taking six previous semesters as the basis for the calculation. This requires sufficient statistical data to have been recorded in order to form the aforementioned cohort.
- (4) Upon successful completion of the master's degree programme, Kempten University of Applied Sciences awards the academic degree "Master of Engineering", abbreviated to "M.Eng.".
- (5) A certificate is issued for the award of this academic degree in the format shown in the valid appendix to the University Examination Regulations for Kempten University of Applied Sciences, taking appropriate account of these Programme and Examination Regulations.

## **§ 15**

### **Entry into force**

These Programme and Examination Regulations come into force on the day that they are announced. They apply to students embarking upon this master's degree programme in Electrical Engineering from Winter Semester 2016/17 onwards.

#### Note:

This version is intended to act as guidance for work, taking into account the changes according to the statutory amendment dated 13 February 2026.

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The validity of the Programme and Examination Regulations for the master's degree programme in Electrical Engineering at Kempten University of Applied Sciences (SPO EE-Ma/HKE) dated 8 July 2016 and the statutory amendments dated 13 December 2018, 17 November 2023, 24 April 2024, 11 July 2024 and 13 February 2026 are not affected by this.

*Issued on the basis of the resolution passed by the Senate of Kempten University of Applied Sciences on 14 June 2016 and the approval of the President on 14 June 2016.*

*Kempten, 8 July 2016*

*Professor Dr Robert F. Schmidt  
- President -*

*This Statute was deposited at Kempten University of Applied Sciences on 12 July 2016. The university announced this act by notice on 12 July 2016. The date of the announcement is 12 July 2016.*

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**Appendix 1<sup>9</sup>:** Table of the courses and performance assessments for the master's degree programme in Electrical Engineering at Kempten University of Applied Sciences

1	2	3	4	5	6	7	8	9
No.	Course, module	CP	h/w	Type of course	Written examinations		Assessed course-work	Supplement ary regul ations
					Duration in mins	Admission requirements		
EE101	Advanced Control Systems	5	4	L/ex/pr	90	1)		
EE102	Electrical Drive Systems	5	4	L/ex/pr	90	1)		
EE103	Microelectronics	5	4	L/ex/pr	90	1)		
EE105	Power Electronics	5	4	L/ex/pr	90	1)		
EE106	Scientific project with seminar	5	2	PW/S			3)	
<b>EE107</b>	<b>Energy Systems Analysis</b>	<b>5</b>	<b>5</b>	<b>L/ex/pr</b>	<b>90</b>	<b>1)</b>		
EE201	Digital Signal Processing	5	4	L/ex/pr	90	1)		
EC2xx	5 comp. elect. modules <sup>2)</sup>	25	20	L/ex/pr	90	1)		
EE301	Master's thesis	25	-	MT	-			
EE301S	Master's thesis colloquium	5	2	S	-		3)	
	Total	90						

- 1) Students must have successfully participated in the corresponding practical course in order to be admitted to the written examination.
- 2) Students must select five compulsory elective modules, each worth 5 Credit Points. The compulsory elective modules cover the following areas, amongst others: Sensors, electronics, telecommunications, control systems, power systems, renewable energy, human resource management and leadership. The current range of modules can be found in the curriculum.
- 3) These seminars fulfil the following tasks: - Guidance on scientific work, - Practising scientific presentations, - Professional exchange of information, - Coordinating the next steps. The presentation of the project or master's thesis in the colloquium accounts for 15% of the module grade for the master's thesis.

<sup>9</sup> In Appendix 1, compulsory module EE104 entitled "Telecommunication Systems" is replaced by compulsory module EE107 entitled "Energy Systems Analysis". Examinations continue to be offered in the compulsory module on "Telecommunication Systems", which has been replaced. This amendment comes into effect from 1 October 2026.

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**List of abbreviations:**

APO	=	University Examination Regulations for Kempten University of Applied Sciences
CP	=	Credit Points in accordance with the European Credit Transfer System (ECTS)
CC	=	credit certificates
MT	=	master's thesis
PW	=	project work
pr	=	practical class
S	=	seminar
h/w	=	hours per week
E	=	exercise
L	=	lecture