

Study and Examination Regulations for the Advanced Course leading to the Master's Degree in "Electrical Mobility and Vehicle Electrification" at the Technical University of Ingolstadt in Cooperation with BEIJING INSTITUTE OF TECHNOLOGY

dated 16/10/2017

On the basis of Article 13 paragraph 1, 58 paragraph 1 clause 1 and 61 paragraph 2 clause 1 of the Bavarian Higher Education Act - BayHSchG – dated 23rd May 2006 (GVBl p. 245, BayRS 22210-1-1-WFK), the Technical University of Ingolstadt had decreed the following statutes:

Preliminary remarks:

In order to maintain the readability and clarity of the regulations, the consistent use of the double form or other descriptions for women and men will be dispensed with. All descriptive terms for persons used in the text always refer to both sexes.

The German original is binding.

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§ 1 Purpose of the study and examination regulations

These study and examination regulations serve to complete and complement the general regulations for conducting examinations at universities of applied science (RaPO) dated 17th October 2001 (GVBl p. 686, Bay RS 2210-4-1-4-1-WFK) and the general examination regulations of the Technical University of Ingolstadt (APO THI) dated 25/07/2011 in the respectively current versions.

§ 2 Objectives of the course of study

¹ The aim of the advanced Master's course of study is to further qualify engineers with professional experience in classical automotive engineering for responsible positions in all business divisions in which a high degree of technical competence in vehicle electrification and electromobility is in the foreground. ² Graduates will possess both relevant skills in electrical engineering as well as different deeper skills in the development and assessment of future components and systems for use in electrified vehicles. ³ They possess an understanding of the systems used for electrified vehicles as an overall concept and are in a position to analyse the increasingly complex and dynamic interaction between subsystems and sensors and to design them in the desired way. ⁴ The course of study

mediates in addition to technical and methodological knowledge social competencies and skills which are needed in the collaboration in teams and/or their management.

§ 3 Qualifications for the course of study

(1) ¹ Qualification requirements for the Master's degree are

- a) proof of the successful completion of studies in the field of mechanical engineering, automotive engineering, physics, or a related specialisation at a German university, with at least 210 ECTS credit points or equivalent scope of the study course or an equivalent successful domestic or foreign degree and,
- b) proof of a minimum one-year relevant qualified practical work experience after graduation of the university degree course referred to in a) and/or an equivalent degree. A relevant qualified professional practical experience shall exist in particular in the case of engineering activities in vehicle development for automotive, aerospace and their associated suppliers.

²The examination board shall decide about the equivalence and the conversion rate according to clause 1 a as well as the relevant professional practical work experience according to b).

(2) ¹Candidates who are able to demonstrate that they possess a university degree and/or an equivalent qualification for which less than 210, but at least 180 ECTS credit points have been awarded, the qualified professional practical work experience referred to in paragraph 1 clause 1 b) can be used to establish the entrance requirement with the consent of the examination board if this essentially conforms to an Bachelor's degree in engineering science, for example, at the Technical University of Ingolstadt, as proof of qualification to compensate for the missing ECTS credits. This is to be verified by a qualified employment testimonial. ³This must provide proof of the nature, the duration, the content and the scope of the activities carried out specifically by the applicant. ⁴The substantive requirements for the certification of qualifications referred to in paragraph 2 clause 1 are specified in more detail in Annex 2, indicating the aims of these qualifications.

(3) All told, the prerequisites mentioned in paragraph 1 a) and b) must exist.

(4) ¹Candidates have to prove additionally language skills in English on level B2 (according to Common European Framework of Reference for Languages). ²This Proof can be done by an first academic degree in an English speaking Program or by an Certificate of Language Skills (e.g. TOEFL, Cambridge Certificate, IELTS, or similar).

§ 4 Admission procedure

(1) Admission to the course requires

1. Timely submission of the application for admission to the course of study. The following should be attached to the completed application form:
 - a) Graduation certificate and diploma verifying the qualification according to § 3 paragraph 1 clause 1 a)
 - b) Curriculum vitae in tabular form
 - c) Testimonial demonstrating professional experience

2. Satisfaction of the qualification requirements according to § 3.

(2) The statutes for matriculation of the Technical University of Ingolstadt shall apply.

§ 5 Type and duration of the course of study

- (1) The advanced course is a career-integrated program, so the lectures are taking place in part-time.
- (2) ¹The course of study includes a standard study period of five theoretical semesters with a workload of 90 ECTS. ²In this standard study period, a Master's thesis should also be completed. ³This is equivalent to three full-time semesters.
- (3) ¹No claim can be made to the Master's course of studies taking place if the number of qualified participants is insufficient. ²As well, no claim can be made that all compulsory modules be offered every semester.
- (4) All Modules will take place at Beijing (People's Republic of China).

§ 6 Credit points

¹ Credit points per module are granted for examinations which were passed and evidence of study-related performance in accordance with the European Credit Transfer System (ECTS). ² Usually a maximum of 40 credit points are awarded per academic year. ³ This is equivalent to one credit point per study load of 25 working hours, which are comprised of class lectures and self-learning phases. ⁴ The number of credit points results according Annex 1 of these Study and Examination Regulations.

§ 7 Modules and credits

- (1) The modules, the number of hours offered, the type of course, the examinations, course-related credits and other provisions in this respect, are set out in Annex 1 of these statutes.
- (2) All modules are either compulsory modules or elective modules:
 1. Compulsory modules are modules of the course, which are obligatory for all students.
 2. ¹Elective modules are the modules of the course which can be offered individually or alternatively in groups. ²All students must select a certain number of these in accordance with these statutes. ³The selected modules are then treated as compulsory modules.

- (3) ¹All lectures are taught in English or Chinese. ²The examination languages is also English or Chinese as the teaching and examination languages, respectively. ³The teaching and examination language will be specified as part of the curriculum/module handbook at the time of the application period for the start of the course of study. ⁴All Modules with Professors of THI will generally be taught in English. ⁵Moduls that are conducted by Professors of BIT will be taught in Chinese as long as only Students with a Chinese [university entrance qualification](#) take part in the Module. ⁶Otherwise these Modules will also be taught in English. ⁷The Classification of Modules is done in Annex 1.

§ 8 Curriculum / module handbook

- (1) ¹ The competent Programme Director shall prepare a curriculum and/or a module handbook to ensure that a syllabus is available and as information for students, from which the course of studies is described in detail. ²The curriculum/ the module handbook shall be decided by the Advanced Education Council of the Technical University of Ingolstadt and is to be published by the university. ³The announcement of new regulations must be made at the latest at the beginning of the semester in which the rules to be applied for the first time. ⁴The curriculum/the module handbook contains in particular provisions and information about
1. the division of weekly study hours per module and study semester,
 2. the catalogue of elective modules which may be selected with the name of the module, the number of weekly study hours per semester, the type of lecture, the study objectives and study content of these modules,
 3. further provisions relating to the credits and evidence of certified attendance,
 4. the form and organisation of lectures,
 5. the type of lecture for each module, insofar as this is not conclusively specified in Annex 1,
 6. the study objectives (learning results) and contents of each module,
 7. further precise provisions about the type and scope of the examinations according to the module, in as far as these are not conclusively specified in Annex 1,
 8. further precise provisions for courses, which are offered via new media,
 9. further precise provisions for the final oral examination,
 10. the teaching and examination language for each module, in as far as this is carried out in a foreign language.

§ 9 Master thesis

- (1) In the Master thesis, students shall demonstrate their ability to apply the knowledge acquired during their studies in an independent scientific paper concerning a complex practical assignment.
- (2) ¹The issue of a subject for the Master thesis shall be made at the earliest by the end of

the third term of lectures, and at the latest by the middle of the fourth study semester.
²Prerequisite for the issue of this topic is that the participant has already achieved 30 ECTS credits.

- (3) The period from selecting a topic up to the submission of the thesis shall be nine months.

§ 10 Evaluation of performance, overall examination result

The overall examination result shall be made up from the weighted individual grades obtained, in accordance with Annex 1.

§ 11 Master examination certificate

- (1) ¹A certificate will be issued verifying that the Master examination has been passed in accordance with the General Examination Regulations of the Technical University of Ingolstadt (APO THI) according to the example provided in the respective version.
²The example certificate will be substantiated according to these Study and Examination Regulations.
- (2) Together with the certificate verifying that the Master examination has been passed, a Diploma Supplement will be issued according to the example shown in the APO THI.

§ 12 Academic degree

- (1) The academic degree "Master of Engineering", abbreviated: "M.Eng.", shall be awarded following the successful completion of the Master's examination.
- (2) A certificate in accordance with the example shown in the Annex to the APO THI will be issued in order to award the academic degree.

§ 13 Effective date

These Study and Examination Regulations shall become effective as of 15th March 2018. They apply to all students who begin a course of study starting from the summer semester 2018.

Prof. Dr. oec. publ. Walter Schober
President