OFFICIAL ANNOUNCEMENTS

Hochschule Düsseldorf
University of Applied Sciences

HSD *Verkündungsblatt* univer-
sity bulletin of official announce-

HSD NO. 613

University bulletin HSD *Verkündungsblatt* 19 June 2018
Issued by: The President Number 613

This English translation is intended to allow international readers a better understanding of the Examination Regulations. It is solely for information purposes and only the German version is legally binding.

New Announcement of the Examination Regulations for the Master's Programme Mechanical Engineering of Hochschule Düsseldorf – University of Applied Sciences

Dated 19 June 2018

The new announcement hereinafter sets forth the wording of the Examination Regulations for the Master's Programme Mechanical Engineering of Hochschule Düsseldorf – University of Applied Sciences of 15 February 2016 (official announcements, university bulletin HSD *Verkündungsblatt* no. 426). The new announcement takes into account the First Amendment to the Examination Regulations for the Master's Programme Mechanical Engineering at Hochschule Düsseldorf – University of Applied Sciences of 7 June 2016 (official announcements, university bulletin HSD *Verkündungsblatt* no. 458)., the Second Amendment to the Examination Regulations for the Master's Programme Mechanical Engineering at Hochschule Düsseldorf – University of Applied Sciences of 2 June 2017 (official announcements, university bulletin HSD *Verkündungsblatt* no. 555) as well as the Third Amendment to the Examination Regulations for the Master's Programme Mechanical Engineering of Hochschule Düsseldorf of 4 April 2018 (official announcements, university bulletin HSD *Verkündungsblatt* no. 601).

Düsseldorf, 19 June 2018

The President
of Hochschule Düsseldorf
University of Applied Sciences
Prof. Dr. Brigitte Grass

List of Contents

SECTION 1 – SCOPE

These Examination Regulations apply to the master's programme Mechanical Engineering of the Faculty of Mechanical and Process Engineering of Hochschule Düsseldorf – University of Applied Sciences.

SECTION 2 – STUDY PROGRAMME OBJECTIVES; PROGRAMME START

(1) The master's programme referred to in section 1 is a further academic programme which qualifies graduates for entry into a profession and follows on consecutively from the bachelor's programmes of the Faculty of Mechanical and Process Engineering of Hochschule Düsseldorf – University of Applied Sciences.

(2) The objective of this master's programme is to broaden the professional prospects for graduates of the bachelor's programmes referred to above or of comparable bachelor's or *Diplom* programmes.

(3) The graduates have acquired in-depth knowledge in the fields of mathematics and engineering, in particular in a broad range of mechanics topics, including solid mechanics, mechanics of multi-body systems and fluid mechanics. In addition, they have acquired know-how in computer-based measurement technology. They have also gained thorough methodological skills: They can use modern simulation tools proficiently, which enables them to calculate technical processes and predict their effects. As English is the language of instruction, the graduates have a written and oral command of English vocabulary across a wide spectrum of mechanical engineering. They write and speak confidently about technical subjects in English.

(4) The graduates are able to develop and refine solutions to problems in their specialist fields. They are capable of collecting, interpreting, and evaluating relevant information and of deducing sound scientific conclusions from them. They can describe their findings appropriately, present them to an audience, justify and defend them. They have also acquired the ability to take responsibility in teams.

(5) The programme starts in the summer and winter semester of the respective year.

SECTION 3 – PURPOSE OF THE MASTER'S EXAMINATION; MASTER'S DEGREE

(1) The master's examination marks the end of studies in the master's programme referred to in section 1, which qualifies graduates for entry into a profession. The purpose of the master's examination is to ascertain whether students have acquired the subject-related and methodical skills required for independent scientific work. Successful completion of the master's examination categorically entitles graduates to proceed with a *Promotion* [translator's note: A *Promotion* is a German qualification; doctoral studies.] in a subject related to their master's studies.

(2) The language of instruction in the programme is English.

(3) Hochschule Düsseldorf – University of Applied Sciences awards students who have passed the master's examination the Master of Science (MSc) degree.

SECTION 4 – ADMISSION REQUIREMENTS

(1) The admission requirements for commencing studies in the master's programme Mechanical Engineering are:

a) Successful completion of one of the bachelor's programmes Mechanical Engineering – Product Development (MPE), Mechanical Engineering – Production Technology (MPT), Energy and Environmental Technology (EUT) or Environmental and Process Technology (UVT) at the Faculty of Mechanical and Process Engineering of Hochschule Düsseldorf – University of Applied Sciences covering 210 ECTS credit points. Successful completion of a comparable bachelor's or *Diplom* programme at Hochschule Düsseldorf – University of Applied Sciences or a comparable bachelor's or *Diplom* programme at another higher education institution within the jurisdiction of the German Basic Law or a qualification from a higher education institution abroad recognised as equivalent are also accepted. Responsibility for establishing comparability lies with the Examination Board.

b) The bachelor's examination for the programme under a) must have been awarded an overall grade of 2.50 (good) [translator's note: according to the German grading system] or better or the ECTS grade of A or B.

c) Students must furthermore produce proof of English language proficiency of B2 level of the Common European Framework of Reference for Languages (CEFR). Proof can be produced by presenting one of the following documents and certificates:

- Cambridge Certificate: First Certificate in English (FCE)
- IELTS: 6.0
- LCCI: level 3
- TELC: B2
- TOEFL (IBT): at least 72 points
- TOEFL (CBT): at least 200 points
- TOEFL (PBT): at least 533 points
- TOEIC: at least 785 points
- School certificates including grades or other school certificates certifying that B2 level was achieved.

Applicants who have attained their first academic degree at an English-speaking institution are exempt from the obligation to produce proof referred to in sentence 1.

(2) By derogation from subsection 1 a) an applicant holding a comparable bachelor's degree covering 180 ECTS credit points may be admitted to the programme subject to certain conditions. The Examination Board determines the content and scale of these conditions (usually 30 additional ECTS credits). The conditions are fulfilled when the applicant has produced proof by the time they register for the master's thesis that the required study and examination achievements have been attained.

(3) Applicants who cannot provide proof of the admission requirements according to subsection 1 letters a), b) by the time of the application deadline may also be admitted to the study programme, if they are not responsible for the relevant proof not being available. For the admission procedure, the admission requirements according to subsection 1 letter b) will be temporarily replaced by proof of an average grade – taking into account all available examination results achieved up until the date of application. Proof of meeting the admission requirements according to subsection 1 letter a), b) must be provided within ten weeks from the application deadline; otherwise the enrolment is terminated.

(4) Enrolment in the programme shall be refused if the applicant has irredeemably failed an examination required in the examination regulations in a study programme at a higher education institution within the jurisdiction of German Basic Law and both the unsuccessful programme as well as

the examination irredeemably failed display considerable similarity with regard to content of the master's programme Mechanical Engineering. Such similarity with regard to content is deemed to exist if at least 60 % of the content of the unsuccessful programme and at least 60 % of the content of the examination irredeemably failed have the same content as the master's programme Mechanical Engineering and the examination foreseen in the Examination Regulations.

SECTION 5 – NORMAL PROGRAMME LENGTH; WORKLOAD

(1) The normal programme length including the master's thesis is three semesters. It comprises the theoretical semesters as well as the examinations including the master's thesis. The structure is shown in detail in the Syllabus and Examination Plan (Annex).

(2) The total scope of the programme amounts to 90 credits in accordance with section 5 of the Framework Examination Regulations.

SECTION 6 – ENTRY INTO FORCE

(1) These Examination Regulations enter into force on 1 March 2016. They are only valid in conjunction with the Framework Examination Regulations of 15 February 2016 as last amended and apply to students who commence their studies from the 2016 summer semester onwards in the programme referred to in section 1.

(2) These Examination Regulations are published in the HSD *Verkündungsblatt* (university bulletin).

ANNEX 1: SYLLABUS AND EXAMINATION PLAN PROGRAMME START IN THE SUMMER SEMESTER

Master's Programme Mechanical Engineering – Programme Start in Summer

Module	L	E	P	S*	credit hours per week	ECTS				No. of ex-ami-na-tions
							1	2	3	
							SS	WS	SS	
General Studies										
Engineering Mathematics	3	1	1		5	6	6			2
Simulation of Mechanical Systems	2	2	1		5	6		6		2
Computer-Based Measurement Technology	2		3		5	6	6			2
Finite Element Method (FEM)	3		2		5	6		6		2
Computational Fluid Dynamics	3	1	1		5	6	6			2
Specialisation										
Elective course I*				6	6	6	6			1
Elective course II*				6	6	6	6			1
Elective course III*				6	6	6		6		1
Elective course IV* or Project R&D II				6	6	6		6		1
Projects, R&D										
Project (Research & Development)						6		6		1
Project seminar				2	2					
Engineering Conferences				6	6	6			6	1
Master's Thesis					0	21			21	**1**
Colloquium					0	3			3	**1**
						Total		**90**		
						Credits per semester	30	30	30	
						Total credits		90		

*[translator's note: L = lecture, E = exercise course, P = practical training in the laboratories, S = special type of examination, e.g. seminar]

ANNEX 2: SYLLABUS AND EXAMINATION PLAN PROGRAMME START IN THE WINTER SEMESTER

Master's Programme Mechanical Engineering – Programme Start in Winter

Module	L	E	P	S	credit hours per week	ECTS				No. of ex-ami-na-tions
							1	2	3	
							WS	SS	WS	
General Studies										
Engineering Mathematics	3	1	1		5	6		6		2
Simulation of Mechanical Systems	2	2	1		5	6	6			2
Computer-Based Measurement Technology	2		3		5	6		6		2
Finite Element Method (FEM)	3		2		5	6	6			2
Computational Fluid Dynamics	3	1	1		5	6		6		2
Specialisation										
Elective course I*				6	6	6	6			1
Elective course II*				6	6	6	6			1
Elective course III*				6	6	6		6		1
Elective course IV* or Project R&D II				6	6	6		6		1
Projects, R&D										
Project (Research & Development)						6	6			1
Project seminar				2	2					
Engineering Conferences				6	6	6			6	1
Master's Thesis					0	21			21	1
Colloquium					0	3			3	1
						Total	**90**			
						Credits per semester	30	30	30	
						Total credits	90			