Rechtlich verbindlich ist der im Mitteilungsblatt des Ministeriums für Bildung, Wissenschaft und Kultur des Landes Mecklenburg-Vorpommern veröffentlichte Text der Satzung. Diese Veröffentlichung hier auf der Homepage soll lediglich ein Service für die Studierenden und sonstigen Mitglieder der Fachhochschule Stralsund sein.

# Erste Satzung zur Änderung der Gemeinsamen Prüfungsordnung für die Master-Studiengänge Maschinenbau – Entwicklung und Produktion sowie Maschinenbau – Fahrzeugtechnik an der Fachhochschule Stralsund

Vom 15. Dezember 2010

Aufgrund des § 2 Absatz 1 in Verbindung mit § 38 Absatz 1 des Gesetzes über die Hochschulen des Landes Mecklenburg-Vorpommern (Landeshochschulgesetz LHG M-V) vom 05. Juli 2002 (GVOBI. M-V 2002, S. 398), das zuletzt durch Artikel 9 des Gesetzes vom 17. Dezember 2009 (GVOBI. M-V S. 687) und durch Artikel 6 des Gesetzes vom 17. Dezember 2009 (GVOBI. M-V S. 729) geändert worden ist, erlässt die Fachhochschule Stralsund folgende Änderungssatzung:

# Artikel 1

Die Gemeinsame Prüfungsordnung für die Master-Studiengänge Maschinenbau – Entwicklung und Produktion sowie Maschinenbau – Fahrzeugtechnik der Fachhochschule Stralsund vom 05. Mai 2008 (Mittl.Bl. BM M-V Seite 1311) wird wie folgt geändert:

1. § 11 Absatz 3 wird wie folgt ergänzt:

erster Anstrich: "mündliche Prüfung"

2. § 14 Absatz 1 Nr. 1 und Nr. 2 werden wie folgt geändert:

a) Nr. 1 wird wie folgt neu gefasst:

"an der Fachhochschule Stralsund im Bachelor-Studiengang Maschinenbau einen ersten berufsqualifizierenden Abschluss im Umfang von 210 CP erworben hat und an der Fachhochschule Stralsund eingeschrieben ist oder"

b) Nr. 2 wird wie folgt neu gefasst:

"einen als gleichwertig anerkannten Abschluss (Bachelor oder Diplom) erworben hat und an der Fachhochschule Stralsund eingeschrieben ist und" 3. § 19 Absatz 2 wird wie folgt geändert:

a) Die Nummern Nr. 3 – 5 werden aufgehoben.

b) Die Nummern 6 bis 16 werden die Nummern 3 bis 13.

4. In § 27 Absatz 4 wird in Satz 1 das Wort "öffentlich" gestrichen und durch das Wort "hochschulöffentlich" ersetzt. In Satz 2 und 3 wird das Wort "Öffentlichkeit" durch das Wort "Hochschulöffentlichkeit" jeweils ersetzt.

5. Teil III Fachspezifische Regelungen für den Studiengang Maschinenbau – Entwicklung und Produktion § 30 Absatz 3 wird wie folgt neu gefasst:

"Im zweiten Regelsemester müssen mindestens drei Wahlpflichtmodule aus den in § 31 Abs. 1 angebotenen belegt werden. Es können auch Wahlpflichtmodule aus einem anderen Masterstudiengang der Fachhochschule Stralsund gewählt werden. Insgesamt müssen 20 CP erreicht werden."

6. In Teil III Fachspezifische Regelungen für den Studiengang Maschinenbau – Entwicklung und Produktion § 31 Absatz 1 wird die Tabelle wie folgt neu gefasst:

Modul	Modulprüfungen Regelprüfungstermin	Art und Umfang der Prüfungsleistung	1. Alternative	2. Alternative	CP pro Modul	Gewichtung für die Gesamtnote (in v. H.)
Pflichtmodule						80
Ausgewählte Kapitel der Mathematik	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Höhere Dynamik	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Höhere Technische Festigkeitslehre	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Angewandte Informatik	2. Semester	Klausur (120 Min.)	mündl. Prüfung	Beleg(50Std)	5	5
Computational Fluid Dynamics	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Impuls-, Wärme-, Stoffübertragung	2. Semester	Klausur (120 Min.)	mündl. Prüfung		4	5
Betriebsfestigkeit und Bruchmechanik	2. Semester	Belegarbeit (30 Std.)	mündl. Prüfung		5	5
Finanzwirtschaft/ Finanzmanagement	2. Semester	Klausur (120 Min.)	mündl. Prüfung		4	5
Strategisches Management	2. Semester	Klausur (120 Min.)	Projektarbeit (30 Std.)		2	2,5
Wirtschafts- und Patentrecht	2. Semester	Klausur (120 Min.)	mündl. Prüfung		2	2,5
Master-Seminar	3. Semester	mündl. Prüfung (30 Min.)	Projektarbeit (30 Std.)		5	5
Master-Arbeit	3. Semester	siehe §26			20	22,5

Master-Kolloquium	3. Semester	Siehe § 27		3	7,5
Wahlpflichtmodule, mindestens drei aus:					20
Produktgestaltung mit CAD/ CAM	2. Semester	Entwurf (80 Std.)		5	5
Produktion	2. Semester	Klausur (120 Min.)	mündl. Prüfung	5	5
Digitale Fabrik	2. Semester	Klausur (120 Min.)	Projektarbeit (80 Std.)	5	5
e-Logistic Management	2. Semester	Klausur (120 Min.)	Projektarbeit (80 Std.)	5	5
Reinraumsysteme in der Produktion	2. Semester	Klausur (120 Min.)	mündl. Prüfung	5	5
Quality Engineering und Fertigungsmeßtechnik	2. Semester	Klausur (120 Min.)	mündl. Prüfung	5	5

7. Teil IV Fachspezifische Regelungen für den Studiengang Maschinenbau – Fahrzeugtechnik § 30 Absatz 3 wird wie folgt neu gefasst:

"Im zweiten Regelsemester müssen mindestens drei Wahlpflichtmodule aus den in § 31 Abs. 1 angebotenen belegt werden. Es können auch Wahlpflichtmodule aus einem anderen Masterstudiengang der Fachhochschule Stralsund gewählt werden. Insgesamt müssen 20 CP erreicht werden."

8. In Teil IV Fachspezifische Regelungen für den Studiengang Maschinenbau – Fahrzeugtechnik § 31 Absatz 1 wird die Tabelle wie folgt neu gefasst:

Modul	Modulprüfun gen Regelprüfung stermin	Art und Umfang der Prüfungsleist ung	1. Alternative	2. Alternativ e	CP pro Modul	Gewichtung für die Gesamtnote (in v. H.)
Pflichtmodule						80
Ausgewählte Kapitel der Mathematik	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Höhere Dynamik	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Höhere Technische Festigkeitslehre	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Angewandte Informatik	2. Semester	Klausur (120 Min.)	mündl. Prüfung	Beleg(50 Std)	5	5
Computational Fluid Dynamics	2. Semester	Klausur (120 Min.)	mündl. Prüfung		5	5
Impuls-, Wärme-, Stoffübertragung	2. Semester	Klausur (120 Min.)	mündl. Prüfung		4	5

Betriebsfestigkeit und	2. Semester	Belegarbeit	mündl.		5	5
Bruchmechanik		(30 Std.)	Prüfung			
Finanzwirtschaft/	2. Semester	Klausur (120	mündl.		4	5
Finanzmanagement		Min.)	Prüfung			
Strategisches	2. Semester	Klausur (120	Projektarbeit		2	2,5
Management		Min.)	(30 Std.)			
Wirtschafts- und	2. Semester	Klausur (120	mündl.		2	2,5
Patentrecht		Min.)	Prüfung			
Master-Seminar	3. Semester	mündl.	Projektarbeit		5	5
		Prüfung (30	(30 Std.)			
		Min.)				
Master-Arbeit	3. Semester	siehe §26			20	22,5
Master-Kolloquium	3. Semester	Siehe § 27			3	7,5
Wahlpflichtmodule,						20
mindestens drei aus:						
Fahrzeugmanagementsyst	2. Semester	Klausur (120	mündl.		5	5
eme		Min.)	Prüfung			
Fahrzeugsimulation und	2. Semester	Projektarbeit			5	5
Fahrversuch		(30 Std.)				
Leichtbau und	2. Semester	Klausur (120	mündl.	Projektarb	5	5
Leichtbauwerkstoffe		Min.)	Prüfung	eit (30		
				Std.)		
Brennverfahren von	2. Semester	Klausur (120	mündl.		5	5
Motoren		Min.)	Prüfung			
Getriebe- und	2. Semester	Klausur (120	mündl.		5	5
Antriebstechnik		Min.)	Prüfung			
Unfallanalytik und	2. Semester	Klausur (120	mündl.		5	5
Fahrzeugsicherheit		Min.)	Prüfung			

9. Die Diploma Supplements werden wie folgt neu gefasst:

# **Diploma Supplement**

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended.

It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

## 1. HOLDER OF QUALIFICATION

- 1.1 Family Name «Nachname»
- 1.2 First Name «Vorname»
- 1.3 Date, Place, Country of Birth «GebDatum», «GebOrt», «GebLand»
- 1.4 Student ID Number or Code not of public interest

# 2. QUALIFICATION

- 2.1 Name of Qualification (full, abbreviated; in original language) Master of Engineering, M.Eng.; Master of Engineering
- 2.2 Main Field(s) of Study Mechanical Engineering
- 2.3 Institution Awarding the Qualification (in original language)
   Fachhochschule Stralsund University of Applied Sciences
   Status (Type / Control)
   Fachhochschule (University of Applied Sciences / State Institution)
- 2.4 Institution Administering Studies (in original language) same as 2.3
- 2.5 Language(s) of Instruction/Examination German/English (depending on type of course)

Certification Date:

## 3. LEVEL OF QUALIFICATION

## 3.1 Level

- Second-level degree (postgraduate), scientific orientation.
- 3.2 Official Length of Programme
  3 semesters (1.5 years), 16 weeks of classes per semester, 30 ECTS credits per semester,
  Master thesis in semester 3
- 3.3 Access Requirements Bachelor or equivalent

## 4. CONTENTS AND RESULTS GAINED

- 4.1 Mode of Study Full time
- 4.2 Programme Requirements/Qualification Profile of the Graduate

Master graduates of mechanical engineering are expected to contribute to their field of interest when working in industry, research organisations or the public service sector. The field of employability covers the range of modern systems of development and production. Graduates of the master programme find activities in industry in research and development in various fields, operation and maintenance of systems, and administration in general. During the Master studies students acquire sound foundations in theory and are trained in practical applications with state of the art equipment available e.g. from industrial partners with special aspects on research work. Students gain deep insight into theory and practice, thus being best well suited for the engineering tasks in their field of activity.

4.3 Programme Details

See "Zeugnis über die Masterprüfung" (Final Examination Certificate) for subjects tested in final examinations (written and oral) and topic of thesis, including evaluations.

4.4 Grading Scheme For general grading scheme cf. sec. 8.6.
4.5 Overall Classification (in original language)

«GesNoteT» («GesNote»)

Based on comprehensive Final Examination (written 70 %, thesis 30 %); cf. "Zeugnis über die Masterprüfung" (Final Examination Certificate).

Certification Date:

## 5. FUNCTION OF QUALIFICATION

5.1 Access to Further Study

Graduates of this programme are entitled to admission to doctoral studies.

5.2 Professional Status

The Master degree entitles its holder to exercise professional work as an scientific engineer in academic, research and industrial settings and in the public service.

## 6. ADDITIONAL INFORMATION

## 6.1 Additional Information

Accredited (cf. sect. 8.3 below) by ASIIN (Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik e.V., Düsseldorf) on 2007-06-29 and 2008-06-27.

## 6.2 Further Information Sources

On the institution: <u>www.fh-stralsund.de</u>; on the programme <u>www.fh-stralsund.de</u> > studium. For national information sources cf. sec. 8.8.

## 7. CERTIFICATION

This Diploma Supplement refers to the following original documents: Urkunde über die Verleihung des Grades vom [Date] Prüfungszeugnis vom [Date] Transcript of Records vom [Date]

Certification Date:

Prof. Dr.-Ing. Wolfgang Schikorr Chairman Examination Committee

## 8. NATIONAL HIGHER EDUCATION SYSTEM

The information on the national higher education system on the following pages provides a context for the qualification and the type of higher education institution that awarded it.

## 8. INFORMATION ON THE GERMAN HIGHER EDUCATION SYSTEM<sup>1</sup>

## 8.1 Types of Institutions and Institutional Status

Higher education (HE) studies in Germany are offered at three types of Higher Education Institutions (HEI).^2  $\,$ 

 Universitäten (Universities) including various specialized institutions, offer the whole range of academic disciplines. In the German tradition, universities focus in particular on basic research so that advanced stages of study have mainly theoretical orientation and research-oriented components.

- Fachhochschulen (Universities of Applied Sciences) concentrate their study programmes in engineering and other technical disciplines, business-related studies, social work, and design areas. The common mission of applied research and development implies a distinct application-oriented focus and professional character of studies, which include integrated and supervised work assignments in industry, enterprises or other relevant institutions.

 Kunst- und Musikhochschulen (Universities of Art/Music) offer studies for artistic careers in fine arts, performing arts and music; in such fields as directing, production, writing in theatre, film, and other media; and in a variety of design areas, architecture, media and communication.

Higher Education Institutions are either state or state-recognized institutions. In their operations, including the organization of studies and the designation and award of degrees, they are both subject to higher education legislation.

## 8.2 Types of Programmes and Degrees Awarded

Studies in all three types of institutions have traditionally been offered in integrated "long" (one-tier) programmes leading to *Diplom*- or *Magister Artium* degrees or completed by a *Staatsprüfung* (State Examination).

Within the framework of the Bologna-Process one-tier study programmes are successively being replaced by a two-tier study system. Since 1998, a scheme of first- and second-level degree programmes (Bachelor and Master) was introduced to be offered parallel to or instead of integrated "long" programmes. These programmes are designed to provide enlarged variety and flexibility to students in planning and pursuing educational objectives, they also enhance international compatibility of studies.

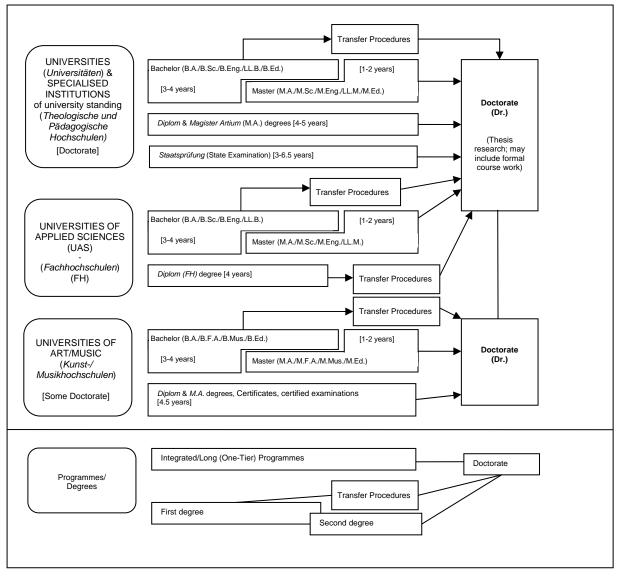
The German Qualification Framework for Higher Education Degrees<sup>3</sup> describes the degrees of the German Higher Education System. It contains the classification of the qualification levels as well as the resulting qualifications and competencies of the graduates.

For details cf. sec. 8.4.1, 8.4.2, and 8.4.3 respectively. Table 1 provides a synoptic summary.

### 8.3 Approval/Accreditation of Programmes and Degrees

To ensure quality and comparability of qualifications, the organization of studies and general degree requirements have to conform to principles and regulations established by the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (KMK).<sup>4</sup> In 1999, a system of accreditation for programmes of study has become operational under the control of an Accreditation Council at national level. All new programmes have to be accredited under this scheme; after a successful accreditation they receive the auality-label of the Accreditation Council.<sup>5</sup>

### Table 1: Institutions, Programmes and Degrees in German Higher Education



### 8.4 **Organization and Structure of Studies**

The following programmes apply to all three types of institutions. Bachelor's and Master's study courses may be studied consecutively, at various higher education institutions, at different types of higher education institutions and with phases of professional work between the first and the second qualification. The organization of the study programmes makes use of modular components and of the European Credit Transfer and Accumulation System (ECTS) with 30 credits corresponding to one semester.

### 8.4.1 Bachelor

Bachelor degree study programmes lay the academic foundations, provide methodological skills and lead to qualifications related to the professional field. The Bachelor degree is awarded after 3 to 4 years.

The Bachelor degree programme includes a thesis requirement. Study

The Bachelor degree programme includes a thesis requirement. Study courses leading to the Bachelor degree must be accredited according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.<sup>6</sup> First degree programmes (Bachelor) lead to Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Engineering (B.Eng.), Bachelor of Laws (LL.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Music (B.Mus.) or Bachelor of Education (B.Ed.).

### 8.4.2 Master

Master is the second degree after another 1 to 2 years. Master study programmes may be differentiated by the profile types "practice-oriented" and "research-oriented". Higher Education Institutions define the profile.

The Master degree study programme includes a thesis requirement. Study programmes leading to the Master degree must be accredited according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.<sup>7</sup> Second degree programmes (Master) lead to Master of Arts (M.A.),

Master of Science (M.Sc.), Master of Engineering (M.Eng.), Master of Laws (LL.M), Master of Fine Arts (M.F.A.), Master of Music (M.Mus.) or Master of Education (M.Ed.). Master study programmes, which are designed for continuing education may carry other designations (e.g. MBĂ)

### 8.4.3 Integrated "Long" Programmes (One-Tier): Diplom degrees, Magister Artium, Staatsprüfung

An integrated study programme is either mono-disciplinary (Diplom An integrated study programme is entrief minor-disciplinitity (*Diplom* degrees, most programmes completed by a *Staatsprüfung*) or comprises a combination of either two major or one major and two minor fields (*Magister Artium*). The first stage (1.5 to 2 years) focuses on broad orientations and foundations of the field(s) of study. An Intermediate Examination (*Diplom-Vorprüfung* for *Diplom* degrees; *Zwischenprüfung* or credit requirements for the *Magister Artium*) is prerequisite to enter the scancel study of advected study. the second stage of advanced studies and specializations. Degree requirements include submission of a thesis (up to 6 months duration) and comprehensive final written and oral examinations. Similar regulations apply to studies leading to a *Staatsprüfung*. The level of qualification is equivalent to the Master level.

- Integrated studies at Universitäten (U) last 4 to 5 years (Diplom degree, Magister Artium) or 3 to 6.5 years (Staatsprüfung). The Diplom degree is awarded in engineering disciplines, the natural sciences as well as economics and business. In the humanities, the corresponding degree is usually the *Magister Artium (M.A.)*. In the social sciences, the practice varies as a matter of institutional traditions. Studies preparing for the legal, medical and pharmaceutical are completed by a *Statsprüfung*. This applies also to studies preparing for teaching professions of some Länder.

The three qualifications (*Diplom, Magister Artium* and *Staatsprüfung*) are academically equivalent. They qualify to apply for admission to doctoral studies. Further prerequisites for admission may be defined by the Higher Education Institution, cf. sec. 8.5.

- Integrated studies at Fachhochschulen (FH)/Universities of Applied Sciences (UAS) last 4 years and lead to a Diplom (FH) degree. While the FH/UAS are non-doctorate granting institutions, qualified graduates may apply for admission to doctoral studies at doctorate-granting institutions, cf. sec. 8.5.

- Studies at Kunst- and Musikhochschulen (Universities of Art/Music etc.) are more diverse in their organization, depending on the field and individual objectives. In addition to *Diplom/Magister* degrees, the integrated study programme awards include Certificates and certified examinations for specialized areas and professional purposes.

### 8.5 Doctorate

Universities as well as specialized institutions of university standing and some Universities of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified Master (UAS and U), a *Magister* degree, a *Diplom*, a *Staatsprüfung*, or a foreign equivalent. Particularly qualified holders of a Bachelor or a Diplom (FH) degree may also be admitted to doctoral studies without acquisition of a further degree by means of a procedure to determine their aptitude. The universities respectively the doctorate-granting institutions regulate entry to a doctorate as well as the structure of the procedure to determine aptitude. Admission further requires the acceptance of the dissertation research project by a professor as a supervisor.

### Grading Scheme 8.6

The grading scheme in Germany usually comprises five levels (with The grading scheme in Germany usually comprises tive levels (with numerical equivalents; intermediate grades may be given): "Sehr Gut" (1) = Very Good; "Gut" (2) = Good; "Befriedigend" (3) = Satisfactory; "Ausreichend" (4) = Sufficient; "Nicht ausreichend" (5) = Non-Sufficient/Fail. The minimum passing grade is "Ausreichend" (4). Verbal designations of grades may vary in some cases and for doctoral degrees

In addition institutions partly already use an ECTS grading scheme.

#### 8.7 Access to Higher Education

The General Higher Education Entrance Qualification (Allgemeine Hochschulreife, Abitur) after 12 to 13 years of schooling allows for admission to all higher educational studies. Specialized variants (Fachgebundende Hochschulreife) allow for admission to particular disciplines. Access to Fachhochschulen (UAS) is also possible with a Fachhochschulreife, which can usually be acquired after 12 years of schooling. Admission to Universities of Art/Music may be based on other or require additional evidence demonstrating individual aptitude. Higher Education Institutions may in certain cases apply additional admission procedures.

### 8.8 National Sources of Information

- Kultusministerkonferenz (KMK) [Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany]; Lennéstrasse 6, D-53113 Bonn; Fax: +49[0]228/501-229; Phone: +49[0]228/501-0 Central Office for Foreign Education (*ZaB*) as German NARIC;
- www.kmk.org; E-Mail: zab@kmk.org "Documentation and Educational Information Service" as German
- EURYDICE-Unit, providing the national dossier on the education system

(www.kmk.org/doku/mentation/zusammenarbeit-aufeuropaeischer-ebene-im-eurydice-informationsnetz.html; E-Mail:

- eurydice@kmk.org) Hochschulrektorenkonferenz (HRK) [German Rectors' Conference]; Ahrstrasse 39, D-53175 Bonn; Fax: +49[0]228/887-110; Phone: +49[0]228/887-0; www.hrk.de; E-Mail: post@hrk.de
- Higher Education Compass" of the German Rectors' Conference features comprehensive information on institutions, programmes of study, etc. (www.higher-education-compass.de)

The information covers only aspects directly relevant to purposes of the Diploma Supplement. All information as of 1st July 2010.

<sup>2</sup> Berufsakademien are not considered as Higher Education Institutions, they only exist in some of the Länder. They offer educational programmes in close cooperation with private companies. Students receive a formal degree and carry out an apprenticeship at the company. Some Berufsakademien offer Bachelor courses which are recognized as an academic degree if they are accredited by a German accreditation agency.

<sup>3</sup> German Qualification Framework for Higher Education Degrees (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 21.04.2005). 4

Common structural guidelines of the Länder for the accreditation of Bachelor's and Master's study courses (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 10.10.2003, as amended on 04.02.2010).

<sup>5</sup> "Law establishing a Foundation 'Foundation for the Accreditation of Study Programmes in Germany<sup>17</sup>, entered into force as from 26.2.2005, GV. NRW. 2005, nr. 5, p. 45 in connection with the Declaration of the *Länder* to the Foundation "Foundation: Foundation for the Accreditation of Study Programmes in Germany" (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 16.12.2004.

See note No. 5.

See note No. 5.

# Diploma Supplement

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended.

It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

## 1. HOLDER OF QUALIFICATION

- 1.3 Family Name «Nachname»
- 1.4 First Name «Vorname»
- 1.3 Date, Place, Country of Birth «GebDatum», «GebOrt», «GebLand»
- 1.4 Student ID Number or Code not of public interest

# 2. QUALIFICATION

- 2.1 Name of Qualification (full, abbreviated; in original language) Master of Engineering, M.Eng.; Master of Engineering
- 2.2 Main Field(s) of Study Mechanical Engineering
- 2.3 Institution Awarding the Qualification (in original language)
   Fachhochschule Stralsund University of Applied Sciences
   Status (Type / Control)
   Fachhochschule (University of Applied Sciences / State Institution)
- 2.4 Institution Administering Studies (in original language) same as 2.3
- 2.5 Language(s) of Instruction/Examination German/English (depending on type of course)

Certification Date:

Prof. Dr.-Ing. Wolfgang Schikorr Chairman Examination Committee

## 3. LEVEL OF QUALIFICATION

- *3.1 Level* Second-level degree (postgraduate), scientific orientation.
- 3.2 Official Length of Programme
   3 semesters (1.5 years), 16 weeks of classes per semester, 30 ECTS credits per semester,
   Master thesis in semester 3
- 3.3 Access Requirements Bachelor or equivalent

## 4. CONTENTS AND RESULTS GAINED

4.1 Mode of Study

Full time

4.2 Programme Requirements

Master graduates of mechanical engineering are expected to contribute to their field of interest when working in industry, research organisations or the public service sector. The field of employability covers the range of modern systems of automotive engineering. Graduates of the master programme find activities in industry in research and development in various fields, operation and maintenance of systems, and administration in general. During the Master studies students acquire sound foundations in theory and are trained in practical applications with state of the art equipment available e.g. from industrial partners with special aspects on research work. Students gain deep insight into theory and practice, thus being best well suited for the engineering tasks in their field of activity.

4.3 Programme Details

See "Zeugnis über die Masterprüfung" (Final Examination Certificate) for subjects tested in final examinations (written and oral) and topic of thesis, including evaluations.

4.4 Grading Scheme

For general grading scheme cf. sec. 8.6.

4.5 Overall Classification (in original language)

## «GesNoteT» («GesNote»)

Based on comprehensive Final Examination (written 70 %, thesis 30 %); cf. "Zeugnis über die Masterprüfung" (Final Examination Certificate).

Certification Date:

Prof. Dr.-Ing. Wolfgang Schikorr Chairman Examination Committee

## 5. FUNCTION OF QUALIFICATION

5.1 Access to Further Study

Graduates of this programme are entitled to admission to doctoral studies.

5.2 Professional Status The Master degree entitles its holder to exercise professional work as an scientific engineer in academic, research and industrial settings and in the public service.

## 6. ADDITIONAL INFORMATION

6.1 Additional Information

Accredited (cf. sect. 8.3 below) by ASIIN (Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik e.V., Düsseldorf) on 2007-06-29 and 2008-06-27.

6.2 Further Information Sources
 On the institution: <u>www.fh-stralsund.de</u>; on the programme <u>www.fh-stralsund.de</u> > studium.
 For national information sources cf. sec. 8.8.

## 7. CERTIFICATION

This Diploma Supplement refers to the following original documents: Urkunde über die Verleihung des Grades vom [Date] Prüfungszeugnis vom [Date] Transcript of Records vom [Date]

Certification Date:

Prof. Dr.-Ing. Wolfgang Schikorr Chairman Examination Committee

## 8. NATIONAL HIGHER EDUCATION SYSTEM

The information on the national higher education system on the following pages provides a context for the qualification and the type of higher education institution that awarded it.

# 8. INFORMATION ON THE GERMAN HIGHER EDUCATION SYSTEM<sup>1</sup>

### 8.1 Types of Institutions and Institutional Status

Higher education (HE) studies in Germany are offered at three types of Higher Education Institutions (HEI).  $^{2}\,$ 

- Universitäten (Universities) including various specialized institutions, offer the whole range of academic disciplines. In the German tradition, universities focus in particular on basic research so that advanced stages of study have mainly theoretical orientation and research-oriented components.

 Fachhochschulen (Universities of Applied Sciences) concentrate their study programmes in engineering and other technical disciplines, business-related studies, social work, and design areas. The common mission of applied research and development implies a distinct application-oriented focus and professional character of studies, which include integrated and supervised work assignments in industry, enterprises or other relevant institutions.

 Kunst- und Musikhochschulen (Universities of Art/Music) offer studies for artistic careers in fine arts, performing arts and music; in such fields as directing, production, writing in theatre, film, and other media; and in a variety of design areas, architecture, media and communication.

Higher Education Institutions are either state or state-recognized institutions. In their operations, including the organization of studies and the designation and award of degrees, they are both subject to higher education legislation.

### 8.2 Types of Programmes and Degrees Awarded

Studies in all three types of institutions have traditionally been offered in integrated "long" (one-tier) programmes leading to *Diplom-* or *Magister Artium* degrees or completed by a *Staatsprüfung* (State Examination).

Within the framework of the Bologna-Process one-tier study programmes are successively being replaced by a two-tier study system. Since 1998, a scheme of first- and second-level degree programmes (Bachelor and Master) was introduced to be offered parallel to or instead of integrated "long" programmes. These programmes are designed to provide enlarged variety and flexibility to students in planning and pursuing educational objectives, they also enhance international compatibility of studies.

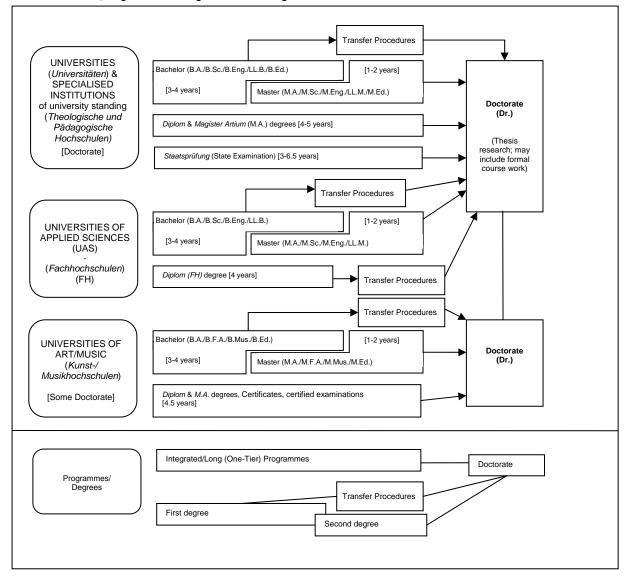
The German Qualification Framework for Higher Education Degrees<sup>3</sup> describes the degrees of the German Higher Education System. It contains the classification of the qualification levels as well as the resulting qualifications and competencies of the graduates.

For details cf. sec. 8.4.1, 8.4.2, and 8.4.3 respectively. Table 1 provides a synoptic summary.

### 8.3 Approval/Accreditation of Programmes and Degrees

To ensure quality and comparability of qualifications, the organization of studies and general degree requirements have to conform to principles and regulations established by the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (KMK).<sup>4</sup> In 1999, a system of accreditation for programmes of study has become operational under the control of an Accreditation Council at national level. All new programmes have to be accredited under this scheme; after a successful accreditation they receive the auality-label of the Accreditation Council.<sup>5</sup>

### Table 1: Institutions, Programmes and Degrees in German Higher Education



#### 8.4 Organization and Structure of Studies

The following programmes apply to all three types of institutions. Bachelor's and Master's study courses may be studied consecutively, at various higher education institutions, at different types of higher education institutions and with phases of professional work between the first and the second qualification. The organization of the study programmes makes use of modular components and of the European Credit Transfer and Accumulation System (ECTS) with 30 credits corresponding to one semester.

## 8.4.1 Bachelor

Bachelor degree study programmes lay the academic foundations, provide methodological skills and lead to qualifications related to the professional field. The Bachelor degree is awarded after 3 to 4 years. The Bachelor degree programme includes a thesis requirement. Study

courses leading to the Bachelor degree must be accredited according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.<sup>6</sup>

First degree programmes (Bachelor) lead to Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Engineering (B.Eng.), Bachelor of Laws (LL.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Music (B.Mus.) or Bachelor of Education (B.Ed.).

### 8.4.2 Master

Master is the second degree after another 1 to 2 years. Master study programmes may be differentiated by the profile types "practice-oriented" and "research-oriented". Higher Education Institutions define the profile.

The Master degree study programme includes a thesis requirement. Study programmes leading to the Master degree must be accredited according to the Law establishing a Foundation for the Accreditation of Study Programmes in Germany.

Second degree programmes (Master) lead to Master of Arts (M.A.), Master of Science (M.Sc.), Master of Engineering (M.Eng.), Master of Laws (LL.M), Master of Fine Arts (M.F.A.), Master of Music (M.Mus.) or Master of Education (M.Ed.). Master study programmes, which are designed for continuing education may carry other designations (e.g. MBA)

## 8.5.3 Integrated "Long" Programmes (One-Tier): Diplom degrees, Magister Artium, Staatsprüfung

An integrated study programme is either mono-disciplinary (Diplom degrees, most programmes completed by a Staatsprüfung) or comprises a combination of either two major or one major and two minor fields (Magister Artium). The first stage (1.5 to 2 years) focuses on broad orientations and foundations of the field(s) of study. An Intermediate Examination (Diplom-Vorprüfung for Diplom degrees; Zwischenprüfung or credit requirements for the Magister Artium) is prerequisite to enter the second stage of advanced studies and specializations. Degree requirements include submission of a thesis (up to 6 months duration) and comprehensive final written and oral examinations. Similar regulations apply to studies leading to a Staatsprüfung. The level of qualification is equivalent to the Master level.

- Integrated studies at Universitäten (U) last 4 to 5 years (Diplom degree, Magister Artium) or 3 to 6.5 years (Staatsprüfung). The Diplom degree is awarded in engineering disciplines, the natural sciences as well as economics and business. In the humanities, the corresponding degree is usually the Magister Artium (M.A.). In the social sciences, the practice varies as a matter of institutional traditions. Studies preparing for the legal, medical and pharmaceutical are completed by a Staatsprüfung. This applies also to studies preparing for teaching professions of some Länder.

The three qualifications (Diplom, Magister Artium and Staatsprüfung) are academically equivalent. They qualify to apply for admission to doctoral studies. Further prerequisites for admission may be defined by the Higher Education Institution, cf. sec. 8.5.

Integrated studies at Fachhochschulen (FH)/Universities of Applied Sciences (UAS) last 4 years and lead to a Diplom (FH) degree. While the FH/UAS are non-doctorate granting institutions, qualified graduates may apply for admission to doctoral studies at doctorate-granting institutions, cf. sec. 8.5.

- Studies at Kunst- and Musikhochschulen (Universities of Art/Music etc.) are more diverse in their organization, depending on the field and individual objectives. In addition to *Diplom/Magister* degrees, the integrated study programme awards include Certificates and certified examinations for specialized areas and professional purposes.

### Doctorate 8.6

Universities as well as specialized institutions of university standing and some Universities of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified Master (UAS and U), a *Magister* degree, a *Diplom*, a *Staatsprüfung*, or a foreign equivalent. Particularly qualified holders of a Bachelor or a *Diplom* (*FH*) degree may also be admitted to doctoral studies without acquisition of a further degree by means of a procedure to determine their aptitude. The universities respectively the doctorate-granting institutions regulate entry to a doctorate as well as the structure of the procedure to determine aptitude. Admission further requires the acceptance of the dissertation research project by a professor as a supervisor.

### 8.9 Grading Scheme

The grading scheme in Germany usually comprises five levels (with numerical equivalents; intermediate grades may be given): "Sehr Gut" (1) = Very Good; "Gut" (2) = Good; "Befriedigend" (3) = Satisfactory; "Ausreichend" (4) = Sufficient; "Nicht ausreichend" (5) = Non-Sufficient/Fail. The minimum passing grade is "Ausreichend" (4). Verbal designations of grades may vary in some cases and for doctoral degrees.

In addition institutions partly already use an ECTS grading scheme.

## 8.10 Access to Higher Education

The General Higher Education Entrance Qualification (Allgemeine Hochschulreife, Abitur) after 12 to 13 years of schooling allows for admission to all higher educational studies. Specialized variants (Fachgebundende Hochschulreife) allow for admission to particular disciplines. Access to Fachhochschulen (UAS) is also possible with a Fachhochschulreife, which can usually be acquired after 12 years of schooling. Admission to Universities of Art/Music may be based on other or require additional evidence demonstrating individual aptitude. Higher Education Institutions may in certain cases apply additional admission procedures.

### 8.11 National Sources of Information

- Kultusministerkonferenz (KMK) [Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany]; Lennéstrasse 6, D-53113 Bonn; Fax: +49[0]228/501-
- 229; Phone: +49[0]228/501-0 Central Office for Foreign Education (*ZaB*) as German NARIC; www.kmk.org; E-Mail: zab@kmk.org "Documentation and Educational Information Service" as German EURYDICE-Unit, providing the national dossier on the education system

(www.kmk.org/doku/mentation/zusammenarbeit-auf-europaeischer-ebene-im-eurydice-informationsnetz.html; E-Mail: eurydice@kmk.org)

- Hochschulrektorenkonferenz (HRK) [German Rectors' Conference]; Ahrstrasse 39, D-53175 Bonn; Fax: +49[0]228/887-110; Phone: +49[0]228/887-0; www.hrk.de; E-Mail: post@hrk.de
- "Higher Education Compass" of the German Rectors' Conference features comprehensive information on institutions, programmes of study, etc. (www.higher-education-compass.de)

- Common structural guidelines of the Länder for the accreditation of Bachelor's and Master's study courses (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 10.10.2003, as amended on 04.02.2010)
- 5 "Law establishing a Foundation 'Foundation for the Accreditation of Study Programmes in Germany", entered into force as from 26.2.2005, GV. NRW. 2005, nr. 5, p. 45 in connection with the Declaration of the *Länder* to the Foundation "Foundation: Foundation for the Accreditation of Study Programmes in Germany" (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany of 16.12.2004.

See note No. 5.

The information covers only aspects directly relevant to purposes of the Diploma Supplement, All information as of 1st July 2010.

<sup>2</sup> Berufsakademien are not considered as Higher Education Institutions, they only exist in some of the Länder. They offer educational programmes in close cooperation with private companies. Students receive a formal degree and carry out an apprenticeship at the company. Some Berufsakademien offer Bachelor courses which are recognized as an academic degree if they are accredited by a German accreditation agency.

<sup>3</sup> German Qualification Framework for Higher Education Degrees (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 21.04.2005).

See note No. 5.

# Artikel 2

Diese Änderungssatzung gilt erstmals für Studierende, die im Sommersemester 2011 an der Fachhochschule Stralsund für die Master-Studiengänge Maschinenbau – Entwicklung und Produktion sowie Maschinenbau – Fahrzeugtechnik immatrikuliert werden.

Ausgefertigt aufgrund des Beschlusses des Senats der Fachhochschule Stralsund vom 14. Dezember 2010 und der Genehmigung des Rektors vom 15. Dezember 2010.

Stralsund, den 15. Dezember 2010

Der Rektor der Fachhochschule Stralsund University of Applied Sciences Prof. Dr.-Ing. Joachim Venghaus