
Prüfungsordnung für den konsekutiven Masterstudiengang Energieeffizientes und nachhaltiges Bauen (Besonderer Teil)

Fakultät Management, Soziale Arbeit, Bauen

Die Prüfungsordnung Besonderer Teil für den konsekutiven Masterstudiengang Energieeffizientes und nachhaltiges Bauen der Fakultät Management, Soziale Arbeit, Bauen vom 25. November 2019 tritt in der geänderten Fassung vom 10. Januar 2024 gemäß Fakultätsratsbeschluss vom 10. Januar 2024 der Fakultät Management, Soziale Arbeit, Bauen der HAWK Hochschule für angewandte Wissenschaft und Kunst Hildesheim/Holzwinden/Göttingen und Genehmigung des Präsidiums vom 12. März 2024 nach ihrer hochschulöffentlichen Bekanntmachung in Kraft. Die hochschulöffentliche Bekanntmachung erfolgte am 14. März 2024.

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§ 1 Dauer und Verlauf des Studiums

- (1) Die Regelstudienzeit des Masterstudiengangs Energieeffizientes und nachhaltiges Bauen beträgt drei Semester. Für Absolvierende einschlägiger sechssemestriger Bachelorstudiengänge ist dem Masterstudiengang ein einsemestriges Angleichungssemester im Umfang von 30 Leistungspunkten vorangestellt. Es ist gemäß Studienverlaufsplan zu absolvieren, wobei die zu absolvierenden Module je nach Art und Ausrichtung des vorausgegangenen Bachelorstudiengangs variieren können.
- (2) Das Studium des dreisemestrigen Masterstudiengangs setzt sich aus Pflichtmodulen im Umfang von 60 Leistungspunkten sowie Wahlpflichtmodulen im Umfang von 30 Leistungspunkten zusammen. Studienverlauf und Workload werden in Anlage 1 aufgezeigt. Wählbare Studienprofile sind Planen und Bauen, Gebäude- und Energietechnik sowie Baumanagement.

§ 2 Prüfungen

- (1) Die für die Masterprüfung zu erbringenden Prüfungen werden studienbegleitend erbracht. Der Modulübersicht (Anlage 1) ist zu entnehmen, welche möglichen Prüfungsformen einem Modul zugeordnet sind und ob es sich um Prüfungs- oder Studienleistungen handelt. In der Modulübersicht ist bei zusammengesetzten Prüfungen die Gewichtung zur Berechnung der Gesamtmodulnote ausgewiesen.
- (2) Ist eine Studienleistung als Prüfungsvorleistung (PVL) vorgesehen, so ist das Bestehen dieser Prüfungsvorleistung neben dem Vorliegen der Voraussetzungen gemäß § 8 des Allgemeinen Teils der Prüfungsordnung für die Zulassung zur Noten bildenden Modulabschlussprüfung erforderlich.
- (3) Abweichend von § 15 Absatz 2 der Prüfungsordnung Allgemeiner Teil findet keine Pflichtanmeldung zur ersten Wiederholungsprüfung statt. Eine nicht bestandene Modulprüfung nach § 15 Absatz 1 der Prüfungsordnung Allgemeiner Teil soll jedoch in der Regel im Rahmen der regulären Prüfungstermine innerhalb der nächsten beiden Semester in der gleichen Art und Dauer wiederholt werden.

§ 3 Masterarbeit und Kolloquium

- (1) Die Bearbeitungszeit für die Masterarbeit (Modul EN3 905) beträgt 12 Wochen.
- (2) Eine Zulassung zum Modul Masterarbeit ist erst möglich, wenn alle Leistungspunkte bis auf die Leistungspunkte der Abschlussarbeit selbst sowie die Leistungspunkte eines weiteren Moduls erbracht sind.
- (3) Im Antrag auf Zulassung zur Masterarbeit (Modulanmeldung) ist der Themenbereich der Aufgabenstellung für die Masterarbeit sowie die/der Erstprüfende zu nennen. Es ist ferner die Unterschrift der/des Erstprüfenden einzuholen.
- (4) Zum Kolloquium wird zugelassen, wessen Masterarbeit von beiden Prüfenden vorläufig mit mindestens ausreichend bewertet wurde. Eine Zulassung zum Kolloquium ist bereits dann möglich, wenn die Modulprüfung im gemäß Absatz 2 zulässigerweise noch offenen weiteren Fachmodul aussteht.
- (5) Das Kolloquium soll in der Regel innerhalb von acht Wochen nach Abgabe der Masterarbeit durchgeführt werden.
- (6) Abweichend von § 21 Absatz 4 der Prüfungsordnung Allgemeiner Teil gilt: Die Betreuung der Abschlussarbeit kann von jedem Mitglied der Professor*innengruppe bzw. Verwalter*in einer Professur der Fakultät übernommen werden. Mit Zustimmung der Prüfungskommission kann die Betreuung auch von einer bzw. einem Professor*in vorgenommen werden, die oder der nicht Mitglied dieser Fakultät ist. Sie kann auch von anderen Prüfer*innen nach § 5 Absatz 1 und 2 der der Prüfungsordnung Allgemeiner

Teil übernommen werden. In der Regel soll die oder der Erstprüfende lehrende*r Professor*in oder Verwalter*in einer Professur sein.

§ 4 Hochschulgrad, Zeugnis

- (1) Der Studiengang schließt mit dem Kolloquium zur Masterarbeit oder mit dem Abschluss des im gemäß § 3 Absatz 2 zulässigerweise noch offenen Fachmoduls ab.
- (2) Die Hochschule verleiht zum Abschluss den Hochschulgrad Master of Engineering, abgekürzt M.Eng. Hierüber stellt die Hochschule eine Urkunde mit dem Datum des Zeugnisses aus (Anlage 2). Ein Muster des Masterzeugnisses enthält Anlage 3. Gleichzeitig wird Studierenden ein Diploma Supplement (Muster siehe Anlage 4) gemäß der aktuellen HRK-Vorlage ausgehändigt.

§ 5 Inkrafttreten und Übergangsregelungen

- (1) Diese Änderung der Prüfungsordnung tritt am Tag nach ihrer hochschulöffentlichen Bekanntmachung in Kraft und gilt für alle immatrikulierten Studierenden. Über Ausnahmen entscheidet auf begründeten Antrag, der innerhalb von drei Monaten nach Inkrafttreten dieser Prüfungsordnung zu stellen ist, die Prüfungskommission.

Anlage 1: Modulübersicht

a) Modulangebot für das Angleichungssemester**

Modul-Nr.	Modulname	LP	Workload	Prüfungsform
ENA_142	Massivbau/Baukonstruktion	6	180	K2/M
ENA_143	Baustoffkunde	6	180	K2/ST
ENA_144	Baukonstruktion/Bauphysik	6	180	ST+LB*/R+LB*
ENA_023	Grundlagen CAD - 2D, 3D, Visualisierung	6	180	PA
ENA_145	Gebäudeenergie-technik	6	180	K1,5+PR+LB*/GL+LB*
ENA_200	Einführung in das Baumanagement	3	90	K1
ENA_011	Grundlagen des Rechts	3	90	K1,5/ST
ENA_XXX	<i>Individuelles Austauschmodul (Studienberatung)</i>	6	180	<i>individuell</i>

*unbenotet

**Gemäß § 1 Absatz 1 sind je nach Art und Ausrichtung des Bachelorabschlusses 30 LP zu erbringen.

b) Modulübersicht für den dreisemestrigen Masterstudiengang

Modul-Nr.	Modulname	LP/Semester			Workload	Prüfungsform
		1	2	3		
EN1_150	Energetisches Bauen/regenerative Energien	6			180	PF+R/PF+ST/PF+K1/K2/ K1+R/K1+ST
EN1_220	Bauvertragsmanagement	6			180	K2/M
EN1_XX1	<i>Wahlpflichtmodul WPM 1</i>	6			180	<i>s. Tabelle unter c)</i>
EN1_YY4	<i>Profil-Wahlpflichtmodul WPM 4</i>	6			180	<i>s. Tabelle unter c)</i>
EN1_521	Projekt 1	6			180	PA+PF*/PA+PR/PA+PR+PF*
EN2_151	Nachhaltiges Planen und Bauen/Zertifizierung		6		180	ST+K1/K2/ST+R/ST+PF
EN2_XX2	<i>Wahlpflichtmodul WPM 2</i>		6		180	<i>s. Tabelle unter c)</i>
EN2_XX3	<i>Wahlpflichtmodul WPM 3</i>		6		180	<i>s. Tabelle unter c)</i>
EN2_YY5	<i>Profil-Wahlpflichtmodul WPM 5</i>		6		180	<i>s. Tabelle unter c)</i>
EN2_522	Projekt 2		6		180	PA+PF*/PA+PR/PA+PR+PF*
EN3_905	Masterarbeit			30	900	AA + Koll.

*unbenotet

c) Angebot der Wahlpflichtmodule WPM 1,2,3 und Profil-Wahlpflichtmodule WPM 4,5***

Nr.	Modulnamen	LP	Workload	Prüfungsform
Wahlpflichtmodule WPM 1, WPM 2, WPM 3				
EN_152	Brandschutz	6	180	K2/ST
EN_153	Gebäude- und Anlagensimulation	6	180	EDRP/M/K2/M+EDRP/K2+EDRP
EN_154	Moderne Methoden der Tragwerksanalyse	6	180	ST/R
EN_155	Stahlbeton- und Spannbetonbau	6	180	K2/ST
EN_157	Bauschäden und Bausanierung	6	180	K2+R+LB*/M+R+LB*/ ST+R+LB*
EN_158	Blockheizkraftwerke	3	90	EDRP+LP*/R+LP*/FS+LP*/K2+LP*
EN_159	Innovative Anwendungen der regenerativen Energietechnik	3	90	R/PA/PR/M
EN_160	Schäden und Sanierung von Grundbaukonstruktionen	6	180	K2/S/M/PA/M+R
EN_161	Innovationen der technischen Gebäudeausrüstung	6	180	K2/R/FS
EN_162	Energieberatung	6	180	ST/R/ST+PF*
EN_163	Ausgewählte Konstruktionen des Stahl- und Ingenieurholzbaus	6	180	K2
EN_164	Bauwerkserhaltung	6	180	M+H/ST
EN_165	Baubiologie	6	180	K2+R+LB*/M+R+LB*/ST+R+LB*
EN_166	Baustoffe – Struktur und Zusammensetzung	6	180	K2+H/ST
EN_167	Moderne Baustoffe	6	180	K1+ST/K2+ST/M/ST
EN_020	Investition und Finanzierung	6	180	K3/K1,5+R
EN_021	Visualisierung und 3D-Techniken	6	180	PA
EN_221	Bauleitplanung/Bauordnungen	6	180	K2/R/ST
EN_222	Wirtschaftlichkeit gebäudetechnischer Anlagen	6	180	K2/R/FS/PA
Profil-Wahlpflichtmodule WPM 4, WPM 5				
EN_161	Innovationen der technischen Gebäudeausrüstung	6	180	K2/R/FS
EN_162	Energieberatung	6	180	ST/R/ST+PF*
EN_164	Bauwerkserhaltung	6	180	M+H/ST
EN_165	Baubiologie	6	180	K2+R+LB*/M+R+LB*/ST+R+LB*
EN_169	Gebäudeentwurf Schwerpunkt Konstruktion	6	180	R+ST
EN_170	Gebäudeentwurf Schwerpunkt Gebäudelehre	6	180	R+ST
EN_171	Optimierung gebäudetechnischer Anlagen	6	180	K2/R/FS
EN_172	Integrale Planung/BIM	6	180	EDRP/R/FS
EN_222	Wirtschaftlichkeit gebäudetechnischer Anlagen	6	180	K2/R/FS/PA
EN_223	Angewandtes Projektmanagement	6	180	ST+PR
EN_224	Claim-Management	6	180	ST+PR/K2
EN_225	Sonderthemen des Baumanagements	6	180	ST+PR/K2/M/R
EN_226	Bauwirtschaft, -kalkulation und -controlling	6	180	K2/M/ST+R

*unbenotet

*** Es sind 18 LP im Wahlpflichtbereich und 12 LP im Profil-Wahlpflichtbereich zu absolvieren. Einige Module sind beiden Bereichen zugeordnet. Die Module werden im jährlichen Rhythmus angeboten. Das konkrete Modulangebot richtet sich nach Studierendenzahlen und Personalverfügbarkeit. Es können weitere Wahlpflichtmodule, die rechtzeitig zu Semesterbeginn bekannt gegeben werden, als Profil-Wahlpflichtmodule angeboten werden.

d) Abkürzungen für die Prüfungsformen (siehe § 8 Absatz 3 Prüfungsordnung Allgemeiner Teil):

Abkürzung	Bezeichnung
*	unbenotete Studienleistung (alle anderen sind benotete Prüfungsleistungen)
/	Der Schrägstrich trennt alternative Varianten der Prüfungsformen.
AA	Abschlussarbeit
EDRP	Erstellung und Dokumentation von Rechnerprogrammen
FS	Fallstudie
GL	Gestaltung eines Lehrsegments
H	Hausarbeit
IR	Internetrecherche
K2	Klausur (2 Std.)
Koll	Kolloquium
LB	Laborbericht
LP	Laborpraktikum
M	Mündliche Prüfung
PA	Projektarbeit
PB	Praktikumsbericht
PF	Portfolio
PR	Präsentation
R	Referat
ST	Studienarbeit

Anlage 2: Masterurkunde (Muster)

MASTERURKUNDE

**Die HAWK
Hochschule für angewandte Wissenschaft und Kunst
Hildesheim/Holzminden/Göttingen
Fakultät Management, Soziale Arbeit, Bauen**

verleiht mit dieser Urkunde

geboren am **«Vorname» «Nachname»**
«Geburtsdatum» in «Geburtsort»

den Hochschulgrad **Master of Engineering**
abgekürzt M. Eng.,
nachdem die Abschlussprüfung im Studiengang

Energieeffizientes und nachhaltiges Bauen

bestanden wurde.

Holzminden, den «Datum»

«Dekan*in»

«Studiendekan*in»

Anlage 3: Masterzeugnis (Muster)

MASTERZEUGNIS

geboren am **«Vorname» «Nachname»**
«Geburtsdatum» in «Geburtsort»

hat die Masterprüfung im Studiengang

Energieeffizientes und nachhaltiges Bauen

der Fakultät Management, Soziale Arbeit, Bauen
bestanden.

Thema der Masterarbeit:

	Credits	Note
Gesamtbewertung	000	0,0 (in Worten)

Die Gesamtnote ergibt sich aus den Modulnoten gemäß Anlage zum Masterzeugnis.

Holzminden, den «PruefDatum»

«Studiendekan*in»

ANLAGE ZUM MASTERZEUGNIS

Studiengang

geboren am **Vorname Nachname**
00.00.0000 in «Ort»

Module	Credits	Note
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Pflicht- und Wahlpflichtmodule

0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0
0,0

Masterarbeit

0,0

Gesamtnote

Anlage 4: Diploma Supplement (Muster)

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. Information identifying the holder of the qualification

1.1	Family name(s)	Nachname	1.2	First name(s)	Vorname
1.3	Date of birth	oo.oo.oooo	1.4	Student ID Number or code	oooooo

2. Information identifying the qualification

2.1 Name of Qualification and (if applicable) title conferred (in original language)

Master of Engineering– M.Eng.

Master of Engineering/M.Eng. Energieeffizientes und nachhaltiges Bauen

Master of Engineering/M.Eng. Energy efficient and Sustainable Construction

2.2 Main field(s) of study for the qualification

Energy efficient and sustainable construction

with

planning and building or

management in construction or

building services engineering and energy engineering

as a possible profile to be chosen

2.3 Name and status of awarding institution (in original language)

HAWK Hochschule für angewandte Wissenschaft und Kunst

Hildesheim/Holzminden/Göttingen

Fakultät Management, Soziale Arbeit, Bauen

University of Applied Sciences and Arts / State Institution

2.4 Name and status of institution administering studies (in original language)

[as above]

2.5 Language(s) of instruction/examination

German

3. Information on the level and duration of the qualification

3.1 Level of the qualification

Master programme, graduate, second degree, by research with thesis

3.2 Official duration of programme in credits and/or years

1,5 years or 2 years, including Master Thesis (30 credit points)

3.3 Access requirement(s)

Diploma or Bachelor degree in engineering, architecture, real estate management or similar disciplines related to design, building and building services engineering.

4. Information on the programme completed and the results obtained

4.1 Mode of Study

Full Time Study

In the event of part-time study (individual application required), the official length of the programme will be extended accordingly.

4.2 Programme learning outcomes

Due to interdisciplinary and subject-linked aspects of the study, graduates have the ability to develop sound concepts in the broad field of energy-efficient and sustainable building and, with respect to the chosen profile, these concepts are continued up to the necessary planning details and are realized in building practice.

Having finished the Master studies, graduates have the competences of applying scientific methods and from these they develop solution concepts for practice.

Graduates have the abilities to deal with complex assignments of energy-efficient and sustainable building in a comprehensive and goal-directed way. They know how to link own competences to those of other fields and then to work out and to submit appropriate solutions.

The Master program „Energy Efficient and Sustainable Constructions“ links within the construction industry the planning and execution competences with consideration to economic aspects as well as energy efficiency, sustainability and environmental protection.

The use of renewable energies and the protection of natural resources have to be taken into consideration for the fairness of future generations. The program, which is a combination of technical, economic and legal subjects, is set up interdisciplinary and focuses in particular on energy efficiency and sustainability in the curriculum. Students acquire the following knowledge and skills in the compulsory modules: refurbishment, energetic building, building contract management, management skills, sustainable planning and construction, certification according to Green Building standards. There is a wide range on offer of optional modules so that students deepen and broaden their knowledge according to their skills and interests. The current developments in the construction sector show that more and more complex projects can only be controlled in future by abilities of subject linked understanding. The co-operation of different departments has become daily business for many projects and the demand on all people involved is team spirit. Without giving up the demands of professional competences in each field of the previous Bachelor studies, the term “Interdisciplinary skills” is emphasized by teaching of key-qualifications, such as creativity, thinking abstract, working in interdisciplinary context, teamwork and communication skills.

Energy efficient and sustainable constructions offer a combination of technical, economical and legal contents and modules which compose an interdisciplinary course in building design and engineering. Energy efficiency and sustainability are forming the core of lectures and assignments.

Lectures and research are placed in the fields: low energy building, renewable energy technologies, sustainability in planning and design, real estate management.

Programme for students in a 2-year course:

It starts with an interim semester where there is a pool of modules to be chosen depending on the student’s Bachelor programme:

Structural engineering and building construction, building materials, building construction and physics, basics of CAD, 2 D, 3 D and visualization, building services, introduction to management in construction, legal basics.

Following 1.5-years: see programme for students in a 1.5-year course (semester 1 to 3) below.

Profile: Planning and Building

Conservation of buildings, building biology, design and structural engineering.

Profile: Building Services Engineering and Energy Engineering

Optimizing of building installations, integral planning, energy consultancy, economic efficiency of building services, innovation of building services (TGA)

Profile: Management in Construction

Applied project management, claim management, special aspects of management in construction.

List of additional modules on choice:

Structural fire protection – special constructions, visualization of fire concepts, structural simulation of buildings and plants, modern methods of load bearing analysis, reinforced and prestressed concrete constructions, planning of road network and its operation, building damages and its refurbishment, central furnace plant, innovative application of regenerative energy technology, green building, innovation of building services (TGA), energy consultancy, steel and timber constructions, reinstatement of buildings, building biology, building materials and their specifications and mixtures, modern materials for works, research methods and statistics, investment and financing, visualization methods and 3 D, physical planning, building regulations, economic efficiency of building services.

4.3 Programme details, individual credits gained and grades/marks obtained

Please refer to the Certificate (Masterzeugnis) for a list of courses and grades.

4.4 Grading system and , if available, grade distribution table
Absolute grading scheme: "Sehr Gut" (1,0; 1,3) = Very Good; "Gut" (1,7; 2,0; 2,3) = Good; "Befriedigend" (2,7; 3,0; 3,3) = Satisfactory; "Ausreichend" (3,7; 4,0) = Pass; "Nicht ausreichend" (5,0) = Fail
Statistical distribution of grades: **grading table**

4.5 Overall classification of the qualification **o,o**
The final grade is based on the grades awarded during the study programme and that of the final thesis (with oral component). Please refer to the Certificate (Masterzeugnis).
When there are no marks given, not enough results are available yet to determine ECTS-grades.

5. Information on the function of the qualification

5.1 Access to further study
The degree entitles its holder to apply for admission for a doctoral thesis according to the regulations covering doctoral programmes, respectively.

5.2 Access to a regulated profession (if applicable)
The Master degree entitles its holder to work professionally in private and public companies, authorities, especially in jobs of the chosen profile.

6. Additional information

6.1 Additional information
Non-academic acquired competencies were credited in an amount of **00** credits in the following modules: ...

6.2 Further information sources
www.hawk.de

7. Certification

This Diploma Supplement refers to the following original documents:

Document on the award of the academic degree (Masterurkunde)	00.00.0000
Certificate (Masterzeugnis)	00.00.0000
Transcript of Records dated from	

Certification Date:	00.00.0000
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(Official Seal / Stamp)

Dean of Studies

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 systemⁱ

8.1 Types of institutions and institutional status

Higher education (HE) studies in Germany are offered at three types of Higher Education Institutions (HEI).ⁱⁱ

- *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 (FH)/Hochschulen für Angewandte Wissenschaften (HAW)* (Universities of Applied Sciences, UAS) 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 an application-oriented focus of studies, which includes 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, two-tier degrees (Bachelor's and Master's) have been introduced in almost all study programmes. This change is designed to provide enlarged variety and flexibility for students in planning and pursuing educational objectives; it also enhances international compatibility of studies.

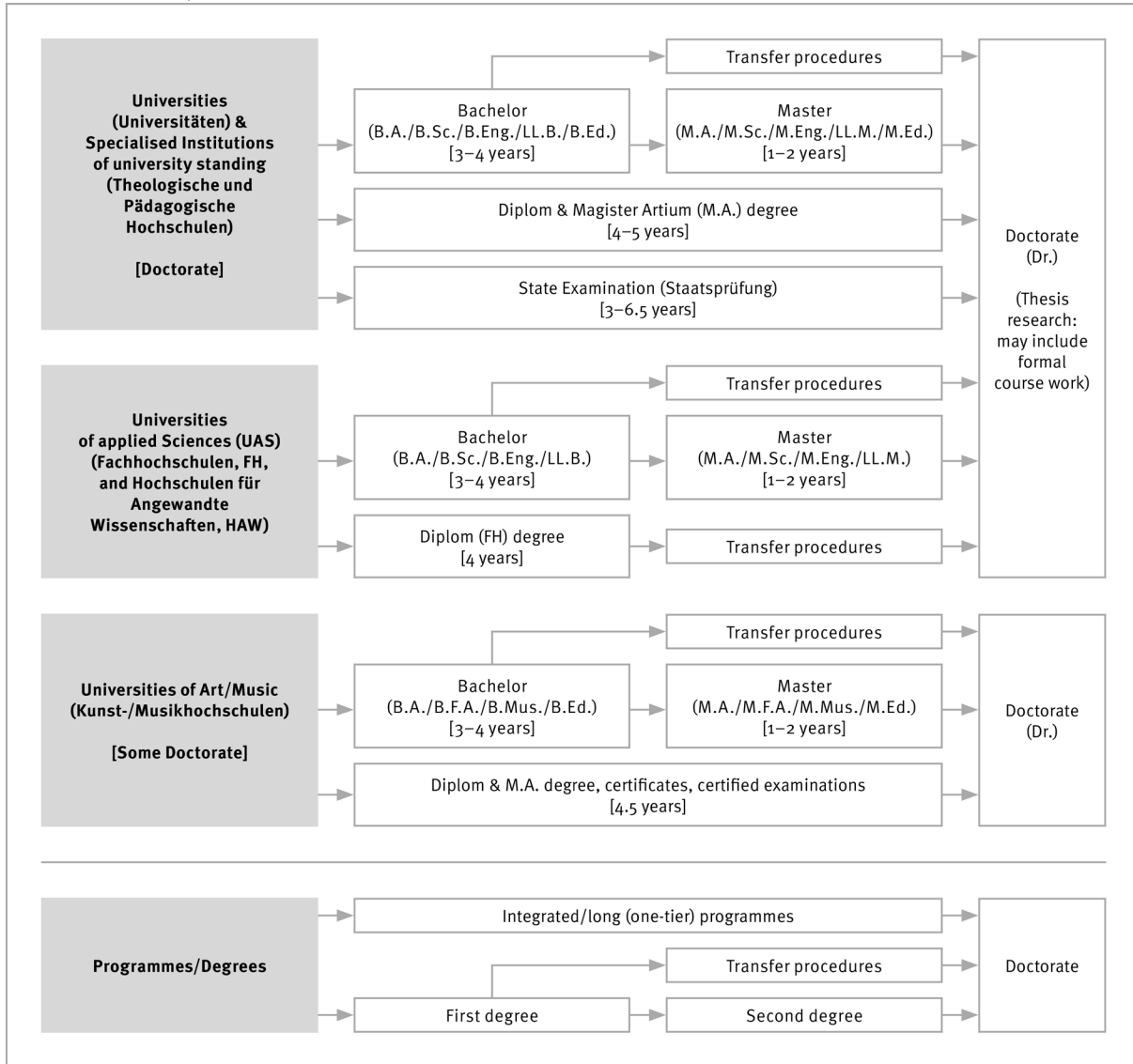
The German Qualifications Framework for Higher Education Qualifications (HQR)ⁱⁱⁱ describes the qualification levels as well as the resulting qualifications and competences of the graduates. The three levels of the HQR correspond to the levels 6, 7 and 8 of the German Qualifications Framework for Lifelong Learning^{iv} and the European Qualifications Framework for Lifelong Learning^v.

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 organisation 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).^{vi} In 1999, a system of accreditation for Bachelor's and Master's programmes has become operational. All new programmes have to be accredited under this scheme; after a successful accreditation they receive the seal of the Accreditation Council.^{vii}

Table 1: Institutions, programmes and degrees in German higher education



8.4 Organisation and structure of studies

The following programmes apply to all three types of institutions. Bachelor's and Master's study programmes 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 organisation 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's degree programmes lay the academic foundations, provide methodological competences and include skills related to the professional field. The Bachelor's degree is awarded after 3 to 4 years. The Bachelor's degree programme includes a thesis requirement. Study programmes leading to the Bachelor's degree must be accredited according to the Interstate study accreditation treaty.^{viii}

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.). The Bachelor's degree corresponds to level 6 of the German Qualifications Framework/ European Qualifications Framework.

8.4.2 Master

Master is the second degree after another 1 to 2 years. Master's programmes may be differentiated by the profile types "practice-oriented" and "research-oriented". Higher Education Institutions define the profile. The Master's degree programme includes a thesis requirement. Study programmes leading to the Master degree must be accredited according to the Interstate study accreditation treaty.^{ix}

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

The Master degree corresponds to level 7 of the German Qualifications Framework/ European Qualifications Framework.

8.4.3 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 specialisations. 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's level.

- Integrated studies at *Universitäten (U)* last 4 to 5 years (*Diplom* degree, *Magister Artium*) or 3.5 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 professions 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 and correspond to level 7 of the German Qualifications Framework/ European Qualifications Framework.

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)*/ *Hochschulen für Angewandte Wissenschaften (HAW)* Universities of Applied Sciences (UAS) last 4 years and lead to a *Diplom (FH)* degree which corresponds to level 6 of the German Qualifications Framework/ European Qualifications Framework.

Qualified graduates of FH/HAW/UAS 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 organisation, depending on the field and individual objectives. In addition to *Diplom/Magister* degrees, the integrated study programme awards include certificates and certified examinations for specialised areas and professional purposes.

8.5 Doctorate

Universities as well as specialised institutions of university standing, some of the FH/HAW/UAS and some Universities of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified Master's degree (UAS and U), a *Magister* degree, a *Diplom*, a *Staatsprüfung*, or a foreign equivalent. Comparable degrees from universities of art and music can in exceptional cases (study programmes such as music theory, musicology, pedagogy of arts and music, media studies) also formally qualify for doctoral work. Particularly qualified holders of a Bachelor's degree 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.

The doctoral degree corresponds to level 8 of the German Qualifications Framework/ European Qualifications Framework.

8.6 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, grade distribution tables as described in the ECTS Users' Guide are used to indicate the relative distribution of grades within a reference group.

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. Specialised variants (*Fachgebundene Hochschulreife*) allow for admission at *Fachhochschulen (FH)*/*Hochschulen für Angewandte Wissenschaften (HAW)* (UAS), universities and equivalent higher education institutions, but only in particular disciplines. Access to study programmes at *Fachhochschulen (FH)*/*Hochschulen für Angewandte Wissenschaften (HAW)* (UAS), is also possible with a *Fachhochschulreife*, which can usually be acquired after 12 years of schooling. Admission to study programmes at Universities of Art/Music and comparable study programmes at other higher education institutions as well as admission to a study programme in sports may be based on other or additional evidence demonstrating individual aptitude.

Applicants with a qualification in vocational education and training but without a school-based higher education entrance qualification are entitled to a general higher education entrance qualification and thus to access to all study programmes, provided they have obtained advanced further training certificates in particular state-regulated vocational fields (e.g. *Meister/Meisterin im Handwerk, Industriemeister/in, Fachwirt/in (IHK), Betriebswirt/in (IHK) und (HWK), staatlich geprüfte/r Techniker/in, staatlich geprüfte/r Betriebswirt/in, staatlich geprüfte/r Gestalter/in, staatlich geprüfte/r Erzieher/in*). Vocationally qualified applicants can obtain a *Fachgebundene Hochschulreife* after completing a state-regulated vocational education of at least two years' duration plus professional practice of normally at least three years' duration, after having successfully passed an aptitude test at a higher education institution or other state institution; the aptitude test may be replaced by successfully completed trial studies of at least one year's duration.^x

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]; Graurheindorfer Str. 157, D-53117 Bonn; Phone: +49[0]228/501-0, www.kmk.org; E-Mail: hochschulen@kmk.org
- Central Office for Foreign Education (ZaB) as German NARIC; www.kmk.org; E-Mail: zab@kmk.org
- German information office of the *Länder* in the EURYDICE Network, providing the national dossier on the education system; www.kmk.org; E-Mail: eurydice@kmk.org
- *Hochschulrektorenkonferenz (HRK)* [German Rectors' Conference]; Leipziger Platz 11, D-10117 Berlin, Phone: +49 30 206292-11; 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)

ⁱ The information covers only aspects directly relevant to purposes of the Diploma Supplement.

ⁱⁱ *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 recognised as an academic degree if they are accredited by the Accreditation Council.

ⁱⁱⁱ German Qualifications 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 16 February 2017).

^{iv} German Qualifications Framework for Lifelong Learning (DQR). Joint resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany, the German Federal Ministry of Education and Research, the German Conference of Economics Ministers and the German Federal Ministry of Economics and Technology (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 15 November 2012). More information at www.dqr.de

^v Recommendation of the European Parliament and the European Council on the establishment of a European Qualifications Framework for Lifelong Learning of 23 April 2008 (2008/C 111/01 – European Qualifications Framework for Lifelong Learning – EQF).

^{vi} Specimen decree pursuant to Article 4, paragraphs 1 – 4 of the interstate study accreditation treaty (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 7 December 2017).

^{vii} Interstate Treaty on the organisation of a joint accreditation system to ensure the quality of teaching and learning at German higher education institutions (Interstate study accreditation treaty) (Decision of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 8 December 2016), Enacted on 1 January 2018.

^{viii} See note No. 7.

^{ix} See note No. 7.

^x Access to higher education for applicants with a vocational qualification, but without a school-based higher education entrance qualification (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 6 March 2009).