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

Fakultät Management, Soziale Arbeit, Bauen

Der Fakultätsrat der Fakultät Management, Soziale Arbeit, Bauen der HAWK Hochschule für angewandte Wissenschaft und Kunst Hildesheim/Holzminde/n/Göttingen hat am 3. Februar 2021 die Änderung der Ordnung über den Besonderen Teil der Prüfungsordnung für den konsekutiven Masterstudiengang Energieeffizientes und Nachhaltiges Bauen beschlossen. Die Ordnung wurde am 2. Februar 2021 vom Präsidium der Hochschule gemäß § 37 Absatz 1 Satz 3 Ziffer 5b) NHG genehmigt. Die hochschulöffentliche Bekanntmachung erfolgte am 16. Februar 2021.

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§ 1 Dauer und Verlauf des Studiums

- (1) Die Regelstudienzeit des Masterstudiengangs Energieeffizientes und Nachhaltiges Bauen beträgt drei Semester. Für Absolvent*innen einschlägiger sechssemestriger Bachelorstudiengänge ist dem Masterstudiengang ein einsemestriges Angleichungssemester im Umfang von 30 Leistungspunkten vorangestellt. Das Angleichungssemester 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“ und „Baumanagement“.

§ 2 Prüfungen

- (1) Die für die Masterprüfung zu erbringenden Prüfungen werden studienbegleitend erbracht. Der Modulübersicht (Anlage 1) ist zu entnehmen, welche Prüfungsformen einem Modul zugeordnet sind und ob es sich um Prüfungs- oder Studienleistungen handelt. Neben der Art der Prüfung ist in den Modulbeschreibungen bei zusammengesetzten Modulprüfungen die Gewichtung ausgewiesen, mit der die Gesamtmodulnote zu berechnen ist.
- (2) Ist in den Modulbeschreibungen 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) Für die Vergabe der Noten gemäß Absatz 4 gilt – unter Beachtung der Rundung auf eine Nachkommastelle - folgendes Bewertungsschema:

bei 95,5 % bis 100 % der erreichbaren Leistung	= 1,0
bei 90,9 % bis 95,4 % der erreichbaren Leistung	= 1,3
bei 84,8 % bis 90,8 % der erreichbaren Leistung	= 1,7
bei 80,3 % bis 84,7 % der erreichbaren Leistung	= 2,0
bei 75,8 % bis 80,2 % der erreichbaren Leistung	= 2,3
bei 69,7 % bis 75,7 % der erreichbaren Leistung	= 2,7
bei 65,2 % bis 69,6 % der erreichbaren Leistung	= 3,0
bei 60,6 % bis 65,1 % der erreichbaren Leistung	= 3,3
bei 54,5 % bis 60,5 % der erreichbaren Leistung	= 3,7
bei 50,0 % bis 54,4 % der erreichbaren Leistung	= 4,0
und bei weniger als 50 % der erreichbaren Leistung	= 5,0 (nicht bestanden)
- (4) Abweichend von § 15 Absatz 2 der Prüfungsordnung Allgemeiner Teil 2019 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) § 21 Absatz 4 der Prüfungsordnung Allgemeiner Teil 2019 wird ersetzt durch folgenden Text:
Die Betreuung der Abschlussarbeit kann von jedem Mitglied der Professor*innengruppe 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 2019 übernommen werden. In der Regel muss die oder der Erstprüfende lehrende*r Professor*in 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 mit dem Zeugnis wird der/dem Studierenden ein Diploma Supplement (Anlage 4) ausgehändigt.

§ 5 Inkrafttreten und Übergangsregelungen

- (1) Die Prüfungsordnung Besonderer Teil 2019 wird in Anlage 1 wie folgt geändert:
 - Erweiterung des Modulangebots (EN_170, EN_226)
 - Änderungen von Modulen (EN_110, EN_143, EN_152, EN_165, EN_169)
- (2) Die Änderung tritt am Tag nach ihrer hochschulöffentlichen Bekanntmachung in Kraft. Die übrigen Vorschriften der bisherigen Prüfungsordnung 2019 bleiben unverändert und gelten weiterhin für die Studierenden, die ihr Studium zum Wintersemester 2019/2020 mit der viersemestrigen Variante (mit Angleichungssemester) bzw. zum Sommersemester 2020 mit der dreisemestrigen Variante (ohne Angleichungssemester) begonnen haben. Entsprechend der Änderungen erfolgt die Neubekanntmachung.

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	Individuelles Austauschmodul (Studienberatung)	6	180	<i>individuell</i>

**Gemäß § 1 Absatz 1 sind je nach Art und Ausrichtung des Bachelorabschlusses 30 Leistungspunkte 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	Wahlpflichtmodul WPM 1	6			180	<i>s. Tabelle unter c)</i>
EN1_YY4	Profil-Wahlpflichtmodul WPM 4	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	Wahlpflichtmodul WPM 2		6		180	<i>s. Tabelle unter c)</i>
EN2_XX3	Wahlpflichtmodul WPM 3		6		180	<i>s. Tabelle unter c)</i>
EN2_YY5	Profil-Wahlpflichtmodul WPM 5		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	Masterarbeit mit Kolloquium

c) Angebot der Wahlpflichtmodule und Profil-Wahlpflichtmodule***:

Modul-Nr.	Modulnamen	LP	Workload	Prüfungsform
Angebot Wahlpflichtmodule WPM 1, WPM 2, WPM 3				
EN_152	Brandschutz	6	180	K2/ST
EN_153	Gebäude- und Anlagensimulation	6	180	EDRP/M
EN_154	Moderne Methoden der Tragwerksanalyse	6	180	ST/R
EN_155	Stahlbeton- und Spannbetonbau	6	180	K2/ST
EN_158	Blockheizkraftwerke	3	90	EDRP+LP*/R+LP*/FS+LP*
EN_159	Innovative Anwendungen der regenerativen Energietechnik	3	90	R/PA/PR/M
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	K2+LB*/M+LB*/ST+LB*
EN_165	Baubiologie	6	180	PA+PF+LB*/PR+PF+LB*/ST+PF+LB*
EN_166	Baustoffe – Struktur und Zusammensetzung	6	180	K2
EN_167	Moderne Baustoffe	6	180	K1+ST/K2+ST/M
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

Modul-Nr.	Modulnamen	LP	Workload	Prüfungsform
Angebot Profil-Wahlpflichtmodule WPM 4, WPM 5				
EN_164	Bauwerkserhaltung	6	180	K2+LB*/M+LB*/ST+LB*
EN_165	Baubiologie	6	180	PA+PF+LB*/PR+PF+LB*/ST+PF+LB*
EN_169	Gebäudeentwurf Schwerpunkt Konstruktion	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_162	Energieberatung	6	180	ST/R/ST+PF*
EN_222	Wirtschaftlichkeit gebäudetechnischer Anlagen	6	180	K2/R/FS/PA
EN_161	Innovationen der technischen Gebäudeausrüstung	6	180	K2/R/FS
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
EN_170	Gebäudeentwurf Schwerpunkt Gebäudelehre	6	180	R+ST
EN_226	Bauwirtschaft, -kalkulation und -controlling	6	180	K2/M/ST+R

*** Es sind 18 Leistungspunkte im Wahlpflichtbereich und 12 Leistungspunkte 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.

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

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

Anlage 2: Masterurkunde

MASTERURKUNDE

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

verleiht mit dieser Urkunde

Frau/Herrn
geboren am

«Vorname» «Nachname»
«Geburtsdatum» in «Geburtsort»

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

Energieeffizientes und Nachhaltiges Bauen

bestanden hat.

Holzminden, den «Datum»

«Dekan/in»
Dekan/in

«Studiendekan/in»
Studiendekan/in

Anlage 3: Masterzeugnis

MASTERZEUGNIS

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

hat die Masterprüfung im Studiengang

Energieeffizientes und Nachhaltiges Bauen

der Fakultät Management, Soziale Arbeit, Bauen
bestanden.

Thema der Masterthesis:

Abschlussprüfung	Credits	Gesamtnote
	000	0,0 (in Worten)

Die Gesamtnote ergibt sich aus den Modulnoten (gemäß Anlage zum Bachelorzeugnis),
die im Verhältnis der auf sie entfallenden Credits gewichtet werden.

Holzminden, den «PruefDatum»

«Studiendekan/in»
Studiendekan/in

Notenstufen: 1,0 bis 1,50 = Sehr Gut; 1,51 bis 2,50 = Gut; 2,51 bis 3,50 = Befriedigend; 3,51 bis 4,0 = Ausreichend

Herr/Frau **Vorname Nachname**
geboren am 00.00.0000 in Geburtsort

Holzminden, den «PruefDatum»

Anlage 4: Diploma Supplement

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 the Qualification

- | | | |
|-----|-------------------------------|-------------------------------------|
| 1.1 | Family Name | Nachname |
| 1.2 | First Name | Vorname |
| 1.3 | Date, Place, Country of Birth | oo.oo.oooo, Geburtsort, Land |
| 1.4 | Student ID Number or Code | oooooooo |

2. Qualification

- | | |
|-----|---|
| 2.1 | Name of Qualification (in original language)
Master of Engineering– M.Eng.
Title Conferred:
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
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 | Institution Awarding the Qualification (in original language)
HAWK Hochschule für angewandte Wissenschaft und Kunst
Hildesheim/Holzwinden/Göttingen
Fakultät Management, Soziale Arbeit, Bauen
Status (Type / Control)
University of Applied Sciences and Arts / State Institution |
| 2.4 | Institution Administering Studies (in original language)
[as above]
Status (Type / Control)
[as above] |
| 2.5 | Language(s) of Instruction/Examination
German |

3. Level of the Qualification

- | | |
|-----|------------------------|
| 3.1 | Level of Qualification |
|-----|------------------------|

Master programme, graduate study programme, second degree (1,5 or 2 years) by research including Master Thesis

3.2 Official Length of Programme

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. Contents and Results gained

4.1 Mode of Study

1.5 years for Bachelor graduates who studied in a 7-semester course and

2 years for Bachelor graduates who studied in a 6-semester course, full time studies

4.2 Programme Requirements

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

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

4.4 Grading Scheme

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 **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 Final Examination Certificate (Masterzeugnis).

When there are no marks given, not enough results are available yet to determine ECTS-grades.

5. Function of the Qualification

5.1 Access to Further Study

Qualifies to apply for admission for master programmes – Prerequisite: In compliance with the requirements of the respective universities or universities of applied sciences and arts.

5.2 Professional Status

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 Additional Information Sources

www.hawk.de

7. Certification

This Diploma Supplement refers to the following original documents:

Masterurkunde (Degree Certificate) dated from **00.00.0000**

Masterzeugnis (Final Examination Certificate) dated from **00.00.0000**

Transcript of Records dated from **00.00.0000**

Certification Date: **Ort, 00.00.0000**

(Official Seal / Stamp)

Dean of Study

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* (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 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).

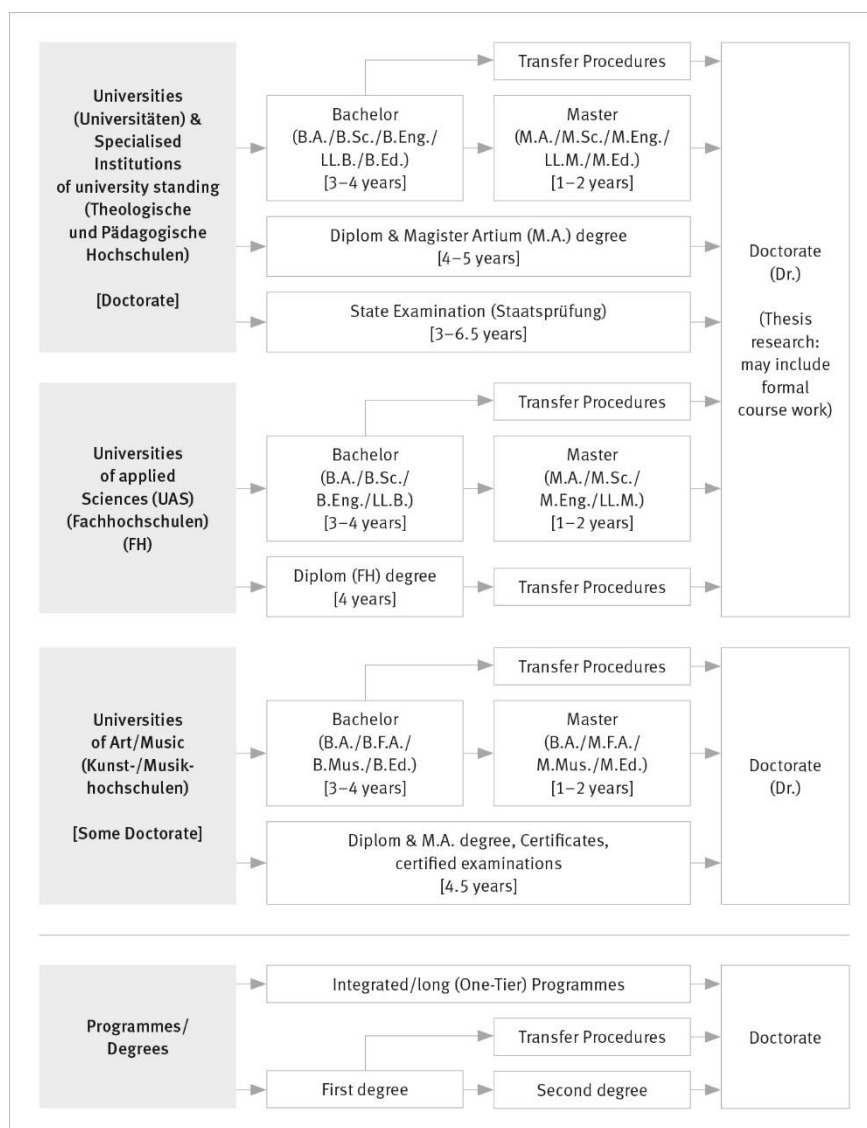
Within the framework of the Bologna-Process one-tier study programmes are successively being replaced by a two-tier study system. Since 1998, two-tier degrees (Bachelor and Master) have been introduced in almost all study programmes. This change is designed to provide enlarged variety and flexibility to students in planning and pursuing educational objectives, they also enhance international compatibility of studies.

The German Qualifications Framework for Higher Education Degreesⁱⁱⁱ, the German Qualifications Framework for Lifelong Learning^{iv} and the European Qualifications Framework for Lifelong Learning^v describe the degrees of the German Higher Education System. They contain 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).^{vi} 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 quality-label of the Accreditation Council.^{vii}



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.^{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 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 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.^{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 (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).

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 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 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)*/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.

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. 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 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. Specialized variants (*Fachgebundene Hochschulreife*) allow for admission at *Fachhochschulen* (UAS), universities and equivalent higher education institutions, but only in particular disciplines. Access to study programmes at *Fachhochschulen* (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 vocational qualification 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 und HWK), staatlich geprüfte/r Betriebswirt/in, staatliche 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; Fax: +49[0]228/501-777; Phone: +49[0]228/501-0
- 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]; 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)

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- 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 recognized as an academic degree if they are accredited by a German accreditation agency.
 - 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} 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).
 - ^{vii} "Law establishing a Foundation 'Foundation for the Accreditation of Study Programmes in Germany'", entered into force as from 26 February 2005, GV. NRW. 2005, No. 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 December 2004).

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- 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).