

Prüfungsordnung des Fachbereichs Informatik und Ingenieurwissenschaften der Frankfurt University of Applied Sciences für den Bachelorstudiengang Engineering Business Information Systems (Wirtschaftsinformatik) (B.Sc.) vom 22. Juni 2016

Hier: Änderung vom 26. Juni 2019

Aufgrund des § 44 Abs.1 Nr. 1 des Hessischen Hochschulgesetzes (HHG) vom 14. Dezember 2009 (GVBl. I S.666) zuletzt geändert durch Gesetz vom 18. Dezember 2017 (GVBl. S. 482) hat der Fachbereichsrat des Fachbereichs Informatik und Ingenieurwissenschaften: Computer Science and Engineering der Frankfurt University of Applied Sciences am 26. Juni 2019 die nachstehende Änderung der Prüfungsordnung beschlossen.

Die Änderung der Prüfungsordnung entspricht den Allgemeinen Bestimmungen für Prüfungsordnungen mit den Abschlüssen Bachelor und Master an der Frankfurt University of Applied Sciences (AB Bachelor/Master) vom 10. November 2004 (StAnz. 2005 S. 519), zuletzt geändert am 20. Februar 2019 (veröffentlicht am 13. März 2019 auf der Internetseite in den Amtlichen Mitteilungen der Frankfurt University of Applied Sciences) und ergänzt sie.

Die Änderung der Prüfungsordnung wurde durch das Präsidium am 26.08.2019 gemäß § 37 Abs. 5 HHG genehmigt.

Artikel I: Änderung

1. In der Vorbemerkung der Prüfungsordnung wird in Anlagen „Anlage 2: Prüfungsplan“ durch „ „Anlage 2: ECTS-/Workload-Übersicht“ ersetzt.
2. Die Anlage 2: Prüfungsplan zur Prüfungsordnung wird in „Anlage 2: ECTS-/Workload-Übersicht“ umbenannt.
3. In Anlage 3 Qualifikationsziel des Studiengangs wird in der Tabelle „Berufliche Tätigkeitsfelder“ in Zeile 7 Einsatz im Bereich Business Analytics wie folgt geändert:
 - a. In der Zelle Kenntnisse (Wissen) Satz 1 werden nach dem Wort „Verfahren“ die Worte

„des analytischen Kundenbeziehungsmanagements“

durch

„der interaktiven Datenanalyse und Visualisierung“

ersetzt.

- b. In der Zelle Fähigkeiten Satz 1 werden nach dem Wort „Umsetzung“ die Worte
„datenschutzkonformer Standardprozesse des analytischen Kundenbeziehungsmanagement“

durch

„von Standardtechniken und -Prozessen der Datenanalyse“

ersetzt.

- c. In der Zelle Kompetenzen Satz 1 werden nach dem Wort „Fragestellungen“ die Worte
„des analytischen Kundenbeziehungsmanagements“
durch
„der Datenanalyse“
und im Satz 2 nach dem Wort „Maßnahmen“ die Worte
*„des Kundenbeziehungsmanagements unter Beachtung des Schutzes der Privatsphäre
der Betroffenen“*
durch
„der Datenanalyse“
ersetzt.
4. In der Modulbeschreibung des Moduls 7 Datenbanken (Anlage 4) wird in
Voraussetzungen für die Teilnahme an der Modulprüfung
„Keine“
durch
„Modul 1: Algebra, Modul 3: Objektorientierte Programmierung“
ersetzt.
5. In der Modulbeschreibung des Moduls 12 Web-basierte Anwendungssysteme
(Anlage 4) wird Voraussetzungen für die Teilnahme an der Modulprüfung
„Keine“
durch
„Modul 3: Objektorientierte Programmierung“
ersetzt.
6. In der Modulbeschreibung des Moduls 18 Data Warehouse (Anlage 4) wird in
Prerequisites for module examination
„None“
durch
„Module 7: Datenbanken“
ersetzt.
7. In der Modulbeschreibung des Moduls 20 Project Management (Anlage 4) wird in
Prerequisites for module participation
„None“
durch
„Module 13: Software Engineering“
ersetzt.
8. In der Modulbeschreibung des Moduls 21 Advanced Programming (Anlage 4) wird in
Prerequisites for module participation
„None“
durch
„Module 7: Datenbanken“
ersetzt.

9. In der Modulbeschreibung des Moduls 22 Interdisziplinäres Studium Generale (Anlage 4) wird nach den Worten „in der Fassung der Änderung vom“ die Datumsangabe
„12. November 2014“
durch
„20 Februar 2019“
und nach den Worten „veröffentlicht am“ die Datumsangabe
„19.02.2015“
durch
„13. März 2019“
ersetzt.
10. In der Modulbeschreibung des Moduls 23 Prozessgetriebene Anwendungssysteme (Anlage 4) wird in Voraussetzungen für die Teilnahme an der Modulprüfung
„Keine“
durch
„Mindestens 90 ECTS-Punkte (Credit Points) aus vorangegangenen Modulen“
ersetzt.
11. In der Modulbeschreibung des Moduls 24 Mobile Anwendungssysteme (Anlage 4) wird in Voraussetzungen für die Teilnahme am Modul
„Keine“
durch
„Mindestens 90 ECTS-Punkte (Credit Points) aus vorangegangenen Modulen“
ersetzt.
12. Die Modulbeschreibung des Moduls 27 Business Analytics (Anlage 4) wird wie folgt geändert:
- a. In Voraussetzungen für die Teilnahme am Modul wird
„Keine“
durch
„Mindestens 90 ECTS-Punkte (Credit Points) aus vorangegangenen Modulen“
ersetzt.
- b. In Modulprüfung“ wird
„Portfolio mit folgenden Werkstücken:
- Projektarbeit (Bearbeitungszeit 8 Wochen) mit Präsentation (mindestens 10, maximal 20 Minuten). In diesem Werkstück sind maximal 50 Punkte erreichbar.
- Schriftliches Testat (Prüfungsdauer 60 Minuten). In diesem Werkstück sind maximal 50 Punkte erreichbar.
Die Note ergibt sich aus der Summe der erreichten Punktzahlen. Zum Bestehen reichen 50% der erreichbaren Punkte aus.“
durch
„Klausur 90 Minuten“
ersetzt.
- c. In Lernergebnis/Kompetenzen werden im zweiten Spiegelstrich nach den Worten „sicher zu bearbeiten“ die Worte
„auch unter Beachtung des Schutzes der Privatsphäre der betroffenen Personen“
ersatzlos gestrichen.

I In der Modulbeschreibung des Moduls 29 Projekt (Anlage 4) wird in Voraussetzungen für die Teilnahme am Modul

„Mindestens 100 ECTS-Punkte aus vorangegangenen Modulen“

durch

„Mindestens 120 ECTS-Punkte (Credit Points) aus vorangegangenen Modulen“
ersetzt.

13. In der Anlage 4 Diploma Supplement werden die Punkte 8 bis 8.8 wie folgt neu gefasst:

8. INFORMATION ON THE GERMAN HIGHER EDUCATION SYSTEM¹

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

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 specialised 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 (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-recognised institutions. In their operations, including the organisation 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, it also enhance international compatibility of studies.

The German Qualifications Framework for Higher Education Qualifications (HQR)³ 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 Learning⁴ and the European Qualifications Framework for Lifelong Learning⁵.

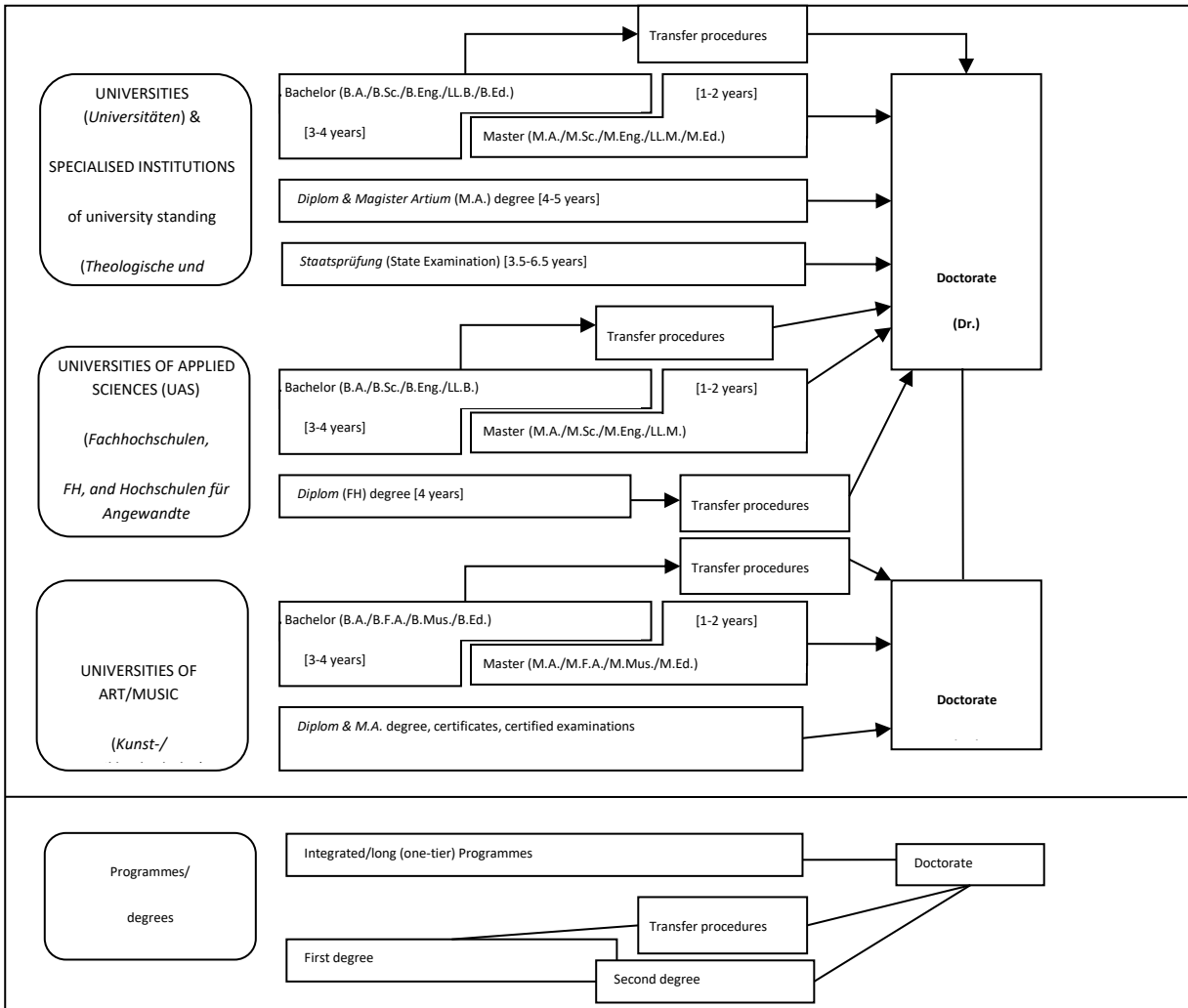
For details cf. Sec. 8.4.1, 8.4.2, and 8.4.3 respectively. Table 1 provides a synoptic summary.

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).⁶ In 1999, a system of accreditation for Bachelor 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.⁷

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 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 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.⁸

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's degree must be accredited according to the Interstate study accreditation treaty.⁹

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's 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.¹⁰

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)

- The information covers only aspects directly relevant to purposes of the Diploma Supplement.
- ¹*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.
- ²German 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).
- ³German 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
- 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).
- ⁴Specimen 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).
- ⁵Interstate 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.
- See note No. 7.
- ⁶See note No. 7.
- 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).

Artikel II: Inkrafttreten

Die Änderung tritt am 1. Oktober 2019 zum Wintersemester 2019/2020 in Kraft und wird in einem zentralen Verzeichnis auf der Internetseite der Frankfurt University of Applied Sciences veröffentlicht.

Frankfurt am Main, den _____

Professor Achim Morkramer

Dekan des Fachbereichs 2: Informatik und Ingenieurwissenschaften – Computer Science and Engineering

Frankfurt University of Applied Sciences