

Technische Universität Darmstadt Bachelor of Science Architecture

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 (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, an explanation should give the reason why.

1. HOLDER OF THE QUALIFICATION

1.1 Family Name / 1.2 First Name

refer to Certificate

1.3 Date, Place, Country of Birth

refer to Certificate

1.4 Student ID Number or Code

refer to Transcript of Records

2. QUALIFICATION

2.1 Name of Qualification (full, abbreviated; in original language)

n.a.

Title conferred (full, abbreviated; in original language)

n.a.

2.2 Main Field(s) of study

Architectural Design [Architecture?]

2.3. Institution Awarding the Qualification (in original language)

Technische Universität Darmstadt
Fachbereich 15 Architektur (Department of Architecture)

Status (Type / Control)

University / State Institution

2.4 Institution Administering Studies (in original language)

see above

Status (Type / Control)

see above

2.5 Language(s) of Instruction / Examination

German

3.3 LEVEL OF THE QUALIFICATION

3.1 Level

Bachelor of Science

3.2 Official Length of Program

three years

3.3 Access Requirements

General Higher Education Entrance Qualification

4. CONTENTS AND RESULTS GAINED

4.1 Mode of Study

full-time

4.2 Program Requirements

B01 Introductory Week (1CP)

Introduction to the study of architecture at TU Darmstadt, information on available courses, the schedule of the bachelor degree course, special subjects, and faculty facilities. Exploration of Darmstadt, perception of Darmstadt's various urban districts from an architectural and urban planning perspective.

B02 Principles and Methods of Architectural History (7CP)

Introduction to academic methodology and use of scientific libraries, presentation of papers, composition of term papers in consideration of scientific criteria, architectural terminology, overview of the main works of European architectural history.

B03 Presentation and Design (1CP)

Spatial perception and presentation of three-dimensional objects, conveyance of various sketching, drawing and sculptural techniques. Training of creative and space-analytical skills.

B04 Construction and Technology I + II (20CP)

Conveyance of principles and relationships of construction, material and behaviour of forces and loads. Introduction to constructive principles by means of the development of simple load-bearing structures and the testing of various materials. Knowledge of the most important building materials and materials in general. Fundamental principles of structural design.

B05 Design Principles (12CP)

Conveyance of design principles, introduction to design principles in architecture, to principles of space generation, composition, and space. Introduction to the theory of buildings, presentation of the most important building typologies and their functions.

B06 Typologies I (9CP)

Conveyance of principles of an urban typology. Introduction to the principles of "architecture in the city". Conveyance of fundamentals of perception, engagement in as well as design and planning of urban architecture and towns. Principles of urban construction and town planning. Insights into the history of towns from an interdisciplinary standpoint.

Introduction to principles of building typology. Perception, analysis, development of building typologies, especially housing, public buildings, industrial and commercial buildings.

B07 Historical Principles I – Antiquity (4CP)

Introduction to the cultural and architectural history of European antiquity. Presentation of important building and urban typologies. Function and construction of antique buildings.

B08 Designing with Digital Media I (3CP)

Spatial collection and presentation of three-dimensional objects, presentation of digital media, techniques and programs for architectural designing. Training of creative and spatial-analytical skill.

B09 Construction and Technology III (12CP)

Conveyance of further principles of construction and technology. Presentation of complex relationships of load-bearing structures and construction as well as their detailing. Development of load-bearing structures with flat appearance and use of building materials. Relationships of technological and building-physical requirements.

B10 Architectural Design Project (8CP)

The acquired principles of architectural design are to be furthered by designing a building of manageable size and complexity. Application of town and building typology knowledge within the design project. Special parameters: Urban context, room programme with several functional units, mix of uses, multi-storey construction.

B11 Typologies II (6CP)

Application of the acquired principles of town and building typologies in exemplary individual cases. Systematic analysis and development of building typologies especially in residential construction. Principles of urban design. Function, structure and design of various urban components.

B12 Historical Principles II – Middle Ages and Early Modern Times (4CP)

Introduction to the cultural and architectural history of the Middle Ages and early modern times (800-1800). Building and urban typologies. Function and construction of outstanding buildings of various eras. Basic principles, functions and design of medieval towns.

B13 Designing with Digital Media II (2CP)

Additional information on the technical knowledge and capabilities acquired in module B08 with regard to one subject each from the fields of architecture and town planning in content-related and creative terms.

B14 Construction and Technology IV (10CP)

Conveyance of principles of long-span structures. Acquisition of basic principles of construction and form. Relationship of load-bearing structure, construction, detailing, and building materials. Technological and building-physical requirements.

B15 Town planning design project (8CP)

Independent systematic application of town planning design methods on the basis of previous town planning exercises. Town planning analysis, assessment, concept development, and elaboration in the form of a design project.

B16 Town planning (4CP)

Conveyance of theoretical principles of design methods in town planning. Design methods, town planning analysis, concept development, concept development, presentation techniques, presentation.

B17 Historic Principles III - Modernism (4CP)

Conveyance of basic lines of development of modern architecture and town planning ranging from the 18th century to the present. Illustration of lines of development in the context of social change processes. Exemplary consolidation in seminars.

B18 Consolidation of Design and Presentation Principles (2CP)

Students must choose one of three art forms (painting/drawing, sculptural design or CAD) and expand their skills.

B19 Construction and Technology V (8CP)

Consolidation of further construction and technology principles in architecture. More complex relationships of load-bearing structure and construction, as well as detailing. Relationships of load-bearing structure, envelope and façade. Mixed constructions with building materials made of glass and metal. Relationships of technological and building-physical requirements and of energy-efficient construction.

B20 Integrated Design (10CP)

Application of skills (structural design, structural engineering, development of load-bearing structures, building physics, building service engineering, constructional materials, building typologies) to complex building types in architecture with previous town planning exercise. Preparation for the bachelor thesis is to be developed independently.

B21 Urban Planning II (4CP)

Conveyance of planning law instruments in town planning and urban construction. Exploration of qualities, limits and possibilities of these instruments. Critical analysis of tasks and possibilities of spatial planning in the urban development process. Choice between a variety of seminars concerning urban planning.

B22 Elective Module (5 CP)

Individual supplementation to the course program with elective courses, language courses, field trips, contribution to student projects etc.

B23 Concepts (15CP)

Concepts serve the preparation for the independent development of the bachelor thesis. The respective editors of the tasks for the bachelor thesis frame exercises for the faculty's five groups (A – E). The aim of the exercises is to prepare the student for the bachelor thesis and give them an appraisal of their individual qualification status.

B24 Thesis (12CP)

Independent development of a complex architectural or urban planning task in the form of a design project. Required as a rule are spatial solutions that take into account the optimal combination of functional, ecological, economic and aesthetic aspects. The results are presented by means of conventional presentation techniques.

4.3 Program Details

see "Zeugnis über die Bachelorprüfung" (Certificate for the Bachelor Examination)

4.4 Grading Scheme

overall grading scheme see Sec. 8.6

4.5 Overall Classification

see Certificate for the Bachelor Examination

5. FUNCTION OF THE QUALIFICATION

5.1 Access to Further Study

qualifies for continuation of studies

5.2 Professional Status

qualifies for professional work in architectural matters under the direction of fully qualified architects (employability).

6. ADDITIONAL INFORMATION

6.1 Additional Information

6.2 Further Information Sources

about the Institution: www.tu-darmstadt.de; about the program: http://www.architektur.tu-darmstadt.de/studieren/studienbuero/studienbuero_index.de.jsp. For national information sources see Sect. 8.8

7. CERTIFICATION

This Diploma Supplement refers to the following original documents:

Zeugnis über die Bachelorprüfung (Certificate for the Bachelor Examination)

Date of Issue: March 31, 2010

Dean of Studies of the Department of
Architecture

Official Stamp / Seal

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 that awarded it (© Sec. 8: Hochschulrektorenkonferenz (HRK)).

8. INFORMATION ON THE GERMAN HIGHER EDUCATION SYSTEM¹

8.1. Types of Institutions and Institutional Control

Higher education (HE) studies in Germany are offered at three types of *Hochschulen*²

- *Universitäten* (Universities), including various specialized institutions, comprise the whole range of academic disciplines. In the German tradition, universities are also institutional foci of, in particular, basic research, so that advanced stages of study have strong theoretical orientations and research-oriented components.
- *Fachhochschulen* (Universities of Applied Sciences): Programs concentrate in engineering and other technical disciplines, business-related studies, social work, and design areas. The common mission of applied research and development implies a distinct application-oriented focus and professional character of studies, which include one or two semesters of integrated and supervised work assignments in industry, enterprises or other relevant institutions.
- *Kunst- and Musikhochschulen* (Colleges of Art/Music, etc.) offer graduate 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.

¹ The information covers only aspects directly relevant to purposes of the Diploma Supplement. All Information as of 1 Jan 2000.

² Hochschule is the generic term for higher education institutions.

HE 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 HE legislation.

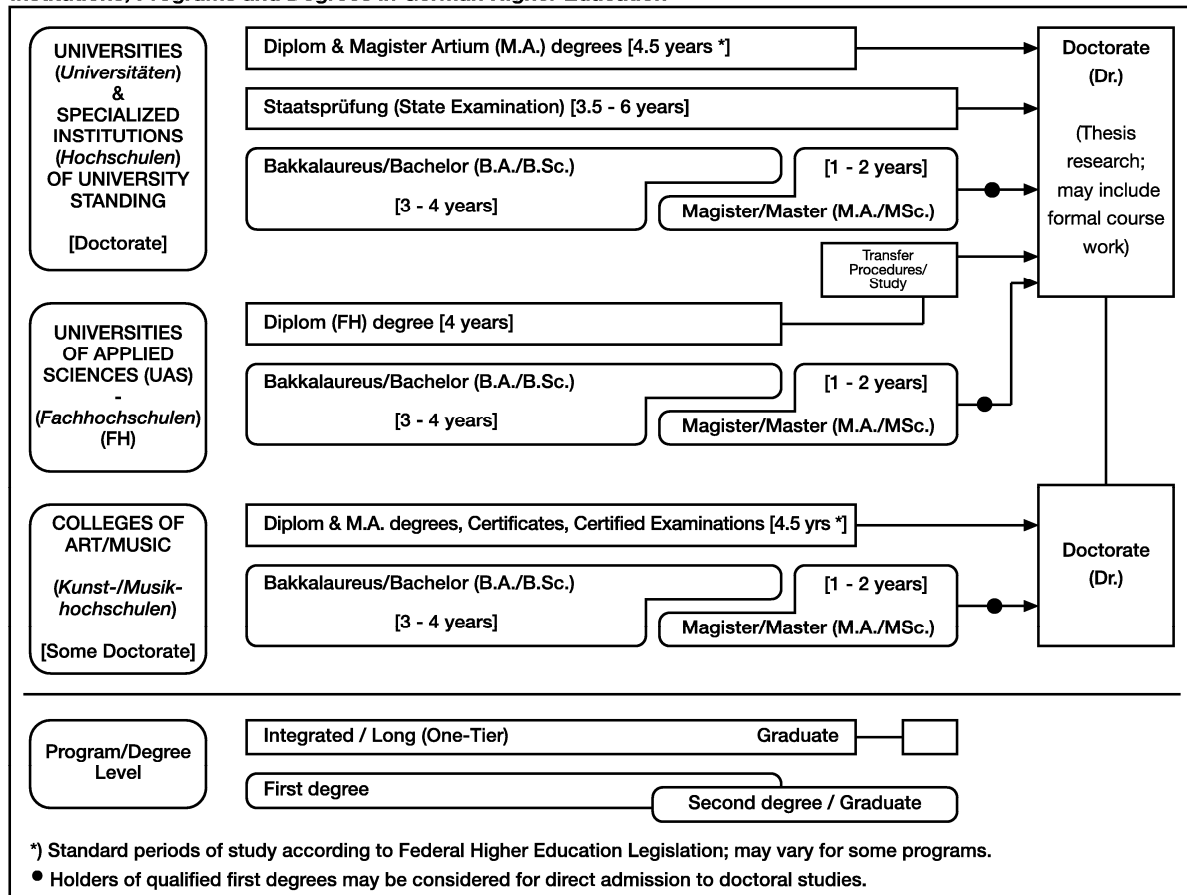
8.2 Types of programs and degrees awarded

- Studies in all three types of institutions are traditionally offered in integrated "long" (one-tier) programs leading to *Diplom-* or *Magister Artium* degrees or completion by a *Staatsprüfung* (State Examination).
- In 1998, a new scheme of first- and second-level degree programs (*Bakkalaureus/Bachelor* and *Magister/Master*) was introduced to be offered parallel to or *in lieu* of established integrated "long" programs. While these programs are designed to provide enlarged variety and flexibility to students in planning and pursuing educational objectives, they enhance also international compatibility of studies.
- For details cf. Sec. 8.41 and Sec. 8.42, respectively. Table 1 provides a synoptic summary.

8.3 Approval/Accreditation of Programs and Degrees

To ensure quality and comparability of qualifications, the organization of studies and general degree requirements have to conform to principles and regulations jointly established by the Standing Conference of Ministers of

Institutions, Programs and Degrees in German Higher Education



Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (KMK) and the Association of German Universities and other Higher Education Institutions (HRK). In 1999, a system of accreditation for programs of study has become operational under the control of an Accreditation Council at national level. Programs and qualifications accredited under this scheme are designated accordingly in the Diploma Supplement.

8.4 Organization of Studies

8.41 Integrated "Long" Programs (One-Tier):

Diplom degrees, Magister Artium, Staatsprüfung

Studies are either mono-disciplinary (single subject, *Diplom* degrees, most programs completed by a *Staatsprüfung*) or comprise a combination of either two major or one major and two minor fields (*Magister Artium*). As common characteristics, in the absence of intermediate (first-level) degrees, studies are divided into two stages. The first stage (1.5 to 2 years) focuses - without any components of general education - on broad orientations and foundations of the field(s) of study including propaedeutical subjects. An Intermediate Examination (*Diplom-Vorprüfung* for *Diplom* degrees; *Zwischenprüfung* or credit requirements for the M.A.) is prerequisite to enter the second stage of advanced studies and specializations. Degree requirements always 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*.

- Studies at *Universities* last usually 4.5 years (*Diplom* degree, *Magister Artium*) or 3.5 to 6 years (*Staatsprüfung*). The *Diplom* degree is awarded in engineering disciplines, the exact/natural and economic sciences. 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, pharmaceutical and teaching professions are completed by a *Staatsprüfung*. The three qualifications are academically equivalent. As the final (and only) degrees offered in these programs at graduate-level, they qualify to apply for admission to doctoral studies, cf. Sec. 8.5.
- Studies at *Fachhochschulen (FH)* /Universities of Applied Sciences (UAS) last 4 years and lead to a *Diplom (FH)* degree. While the *FH/UAS* are non-doctorate granting institutions, qualified graduates may pursue doctoral work at doctorate-granting institutions, cf. Sec. 8.5.
- Studies at *Kunst- and Musikhochschulen* (Colleges of Art/Music, etc.) are more flexible in their organization, depending on the field and individual objectives. In addition to *Diplom/Magister* degrees, awards include Certificates and Certified Examinations for specialized areas and professional purposes.

8.42 First/Second Degree Programs (Two-tier):

Bakkalaureus/Bachelor, Magister/Master degrees

These programs apply to all three types of institutions. Their organization makes use of credit point systems and modular components. First degree programs (3 to 4 years) lead to *Bakkalaureus/Bachelor* degrees (B.A., B.Sc.). Graduate second degree programs (1 to 2 years) lead to *Magister/Master* degrees (M.A., M.Sc.). Both may be awarded in dedicated form to indicate particular

specializations or applied/professional orientations (B./M. of ... ; B.A., B.Sc. or M.A., M.Sc. in ...). All degrees include a thesis requirement.

8.5 Doctorate

Universities, most specialized institutions and some Colleges of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified *Diplom* or *Magister/Master* degree, a *Staatsprüfung*, or a foreign equivalent. Admission further requires the acceptance of the Dissertation research project by a supervisor. Holders of a qualified *Diplom (FH)* degree or other first degrees may be admitted for doctoral studies with specified additional requirements.

8.6 Grading Scheme

The grading scheme 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. Some institutions may also use the ECTS grading scheme.

8.7 Access to Higher Education

The General Higher Education Entrance Qualification (*Allgemeine Hochschulreife, Abitur*) after 12 to 13 years of schooling gives access to all higher education studies. Specialized variants (*Fachgebundene Hochschulreife*) allow for admission to particular disciplines. Access to *Fachhochschulen/(UAS)* is also possible after 12 years (*Fachhochschulreife*). Admission to Colleges of Art/Music may be based on other or require additional evidence demonstrating individual aptitude.

8.8 National Sources of Information

- *Kultusministerkonferenz* (KMK) [Standing Conference of Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany] - Lennéstrasse 6, D-53113 Bonn; Fax: +49/[0]228/501-229; with
 - Central Office for Foreign Education (ZaB) as German NARIC and ENIC; www.kmk.org; E-Mail: zab@kmk.org
 - "Documentation and Educational Information Service" as German EURYDICE-Unit, providing the national dossier on the education system (EURYBASE, annual update, www.eurydice.org; E-Mail eurydice@kmk.org).
- *Hochschulrektorenkonferenz* (HRK) [Association of German Universities and other Higher Education Institutions]. Its "Higher Education Compass" (www.higher-education-compass.hrk.de) features comprehensive information on institutions, programs of study, etc. Ahrstrasse 39, D-53175 Bonn; Fax: +49/[0]228 / 887-210; E-Mail: sekr@hrk.de

DSDoc 01/03.00